



ANNUAL REPORT

2008 - 2009



BIRLA INSTITUTE OF TECHNOLOGY
(DEEMED UNIVERSITY)

MESRA, RANCHI-835215, JHARKHAND, INDIA

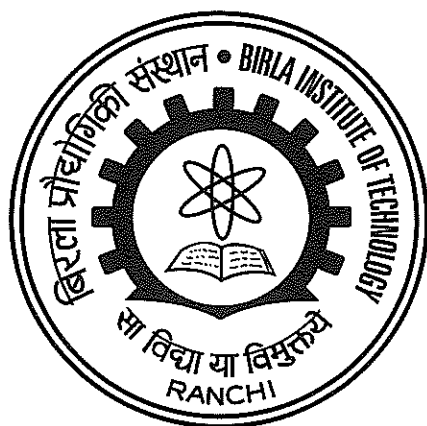




Convocation - 2008

ANNUAL REPORT

2008 - 2009



BIRLA INSTITUTE OF TECHNOLOGY
(DEEMED UNIVERSITY)
MESRA, RANCHI, JHARKHAND
INDIA

INSTITUTE PRAYER

प्रार्थना

यं शैवाः समुपासते शिव इति ब्रह्मेति वेदान्तिनो
बौद्धाः बुद्ध इति प्रमाण पटवः कर्तेति नैयायिकाः ।
अर्हन् नित्यथ जैन शासनताः कर्मेति मीमांसकाः
सोऽयं नो विदधातु वाञ्छित फलं त्रैलोक्य नाथो हरिः ॥

"May the Lord of the Universe, the remover of evil, whom devotees of Shiva worship as Shiva, the Vedantins as Brahman, the Buddhists as Buddha, the followers of the Nyaya philosophy who are clever in logic as Agent, those devoted to the Jaina doctrines as Arhat, the ritualists of the Mimamsa School as Karma – grant us all our hearty desire."

हे जग त्राता, विश्व विधाता, हे सुख शांति निकेतन हे ।
प्रेम के सिन्धु, दीन के बन्धु, दुःख दरिद्र विनाशन हे ।
नित्य अखण्ड अनन्त अनादि, पूरन ब्रह्म सनातन हे ।
जगआश्रय जगपति जगवन्दन, अनुपम अलख निरंजन हे ।
प्राण सखा त्रिभुवन प्रतिपालक, जीवन के अवलम्बन हे ।

You are the saviour and the creator of the Universe, the abode of peace and happiness, the ocean of love, the friend of the helpless, the reliever of sorrows and afflictions. You are the external, the indivisible and the infinite. You are the complete universe and the prime Being. You are the shelter, the lord and worshipped of world. You are unparalleled, unseen and blissful. You are friend of the living, the preserver of the universe and the support of our life.

Contents

VICE-CHANCELLOR'S REPORT	1
INTRODUCTION	11
Administration	12
Institute Campus	12
Institute Building (Sq. Mtrs.)	12
Residential Complex	13
Hostel Accommodation	13
Guest Accommodation	13
Auditorium	13
Games & Sports Complex	13
Dispensary – Cum – Health Centre	14
Visiting Physician	14
Shopping Centre	15
The students' Halls of Residence	15
Students Intake	16
Continuing Education (Part Time) Programme	18
Extension Centres	18
Admission during 2008 – 2009.....	19
Convocation, Results, Degrees / Diploma Awarded.....	29
Faculty Strength (including International centers)	32
Department / Centre wise details of faculty position	33
DEPARTMENT	55
Department of Architecture	55
Department of Applied Chemistry	60
Department of Applied Mathematics	66
Department of Applied Mechanics	72
Department of Applied Physics	73
Department of Biotechnology.....	83
Department of Biomedical Instrumentation	88
Department of Civil Engineering	91
Department of Computer Science.....	95
Department of Electronics and Communication Engineering.....	99
Department of Electrical and Electronics Engineering	112
Department of Food Processing Technology	118
Department of Hotel Management & Catering Technology	120
Department of Information Science.....	123
Department of Information Technology & MCA	125
Department of Management	128

Department of Mechanical Engineering	132
Department of Pharmaceutical Science.....	134
Department of Polymer Engineering	152
Department of Production Engineering.....	158
Department of Remote Sensing.....	162
Department of Space Engineering & Rocketry	167
Department of Physical Education & Sports	172
Environmental Science & Engineering Group.....	174
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME	176
INTELLECTUAL PROPERTY MANAGEMENT (IPM) CELL.....	198
INTERNATIONAL COLLABORATIONS.....	199
NATIONAL CADET CORE	200
NATIONAL SERVICE SCHEME	201
EXTENSION CENTRES	
Naini, Allahabad	205
Patna	211
Jaipur.....	215
Kolkata	227
Lalpur, Ranchi	231
NOIDA.....	239
Deoghar	244
INTERNATIONAL CENTRES	
Muscat.....	251
Bahrain.....	256
RAS Al Khaimah, UAE	261
Mauritius.....	264
UNIVERSITY POLYTECHNIC.....	265
CENTRAL LIBRARY.....	269
TRAINING & PLACEMENT DIVISION.....	281
STUDENTS' ACTIVITIES.....	286
ANNEXURES	
FOUNDER MEMBER.....	291
BOARD OF GOVERNORS	292
FINANCE COMMITTEE	293
BUILDING & WORKS COMMITTEE	294
TECHNICAL COUNCIL.....	295
DEPARTMENTAL BOARD OF STUDY	296
ADVISORS, DEANS, HEAD OF THE DEPARTMENT / INCHARGE	304
IMPORTANT TELEPHONE NUMBER	306

VICE-CHANCELLOR'S REPORT

The Institute founded by the industrialist and philanthropist Late Shri B. M. Birla in 1955 had attained the status of a Deemed University as early as in 1986. The Institute in conformity with the vision of its distinguished founder ensured the maintenance of the principle of equity while offering open access for quality professional education at a reasonable cost. It also had the good fortune to receive blessings and support from our Chancellor His Excellency Hon'ble Shri Syed Sibtey Razi, The Governor of Jharkhand, the blessings and guidance of Padma Bhushan Shri G. P. Birla as the Chairman of its Board of Governors. BIT is one of the 113 Deemed Universities in India. The total faculty strength stands at 683 and students strength above 12,000 including the extension centres in India and abroad and has 23 academic departments, the latest being the Department of Food Processing Technology.

The institute has initiated many schemes to insure quality education to the students, career development of faculty members, progression of students to higher education, placement of students in reputed companies and organization around the entire globe. The institute has a vision and mission to produce quality graduates with global employability, competent teachers, scientists and leaders in the academics, industry and administration under the guidance and dynamic leadership of the Chairman. To promote and encourage research, the Chairman had introduced incentives to the teachers to take up high quality research in the Institute in the form of Rs. 10,000/- to the Professors, Rs. 7,500/- to the Readers and Rs. 5,000/- to the Lecturers and appropriate financial incentives to the supporting staff and technicians for post working hour devotion to research and development since December 2006. Under the health and welfare scheme, the Chairman has also increased the Mediclaim coverage from Rs. 2.0 lakhs to 4.0 lakhs for faculties and from 1.5 lakh to 3.0 lakhs for other employees.

In the following, I briefly place the achievements of the institute in various fields during the last one year.

1.0 ACADEMIC ACHIEVEMENTS

1.1 R&D PUBLICATIONS AND PATENTS

The high level of research, conducted by its Faculty Members, Scientific Officers and Research Scholars has led to recognition by the State and National level funding agencies like UGC, CSIR, DST, DAE, BRNS, ISRO, DRDO, ARDB, DBT, AICTE, NaMPET, C-DAC, Govt. of Jharkhand etc. in the form of sponsored projects and consultancies.

The Institute research achievements are reflected by the following statistics for the current academic session:

Publications in International Journals	:	236
Publication in International Proceedings	:	85
Publication in National Journals	:	87
Publication in National Proceedings	:	166
Ongoing R&D Projects	:	114
Project Completed	:	17
Patent Filed	:	11
Patent Granted	:	04
Books Published	:	07

All together 191 faculty members were financed by the Institute to attend National Seminars and 20 faculty members were offered financial support to attend international conferences.

1.2 INFRASTRUCTURE DEVELOPMENT

Keeping in line with the expansion of its academic programmes, the Institute continues its efforts to consolidate academic and infrastructural support in the form of equipment, learning resources and space. A few of them are as follows:

1. Department of Pharmaceuticals Sciences has shifted to its new building.
2. Department of Hotel Management & Catering Technology is also shifted to its new building.
3. BITIC Ras-Al-Khaimah has moved into a new state of the art campus from SP/09.
4. In the year 08-09 following Instruments have been installed at Central Instrumentation Facility:
 - a. Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES), {Perkin Elmer, USA}
 - b. Microwave Digestion System, (Anton Paar, Austria)
5. The Central Library of the Institute has implemented the Electronic security system to safeguard the valuable library resources.
6. Air-cooling System at Golden Jubilee Auditorium is installed.

1.3 NEW PROGRAMMES

The Institute has started the following new programmes at BIT, Mesra and its extension centres at NOIDA and Deoghar / international centres at Muscat and Ras-Al-Khaimah:

1. Department of Food Processing Technology has started offering 3 years B.Sc. (FPT) Programme at BIT Mesra since Spring 2009 Session.
2. M.Sc. courses in Applied Physics, Applied Chemistry and Applied Mathematics at Mesra have started since Spring 2009 Session.
3. Department of Polymer Engineering has started a new PG programme M. Tech. (Polymer Science & Technology).
4. BITEC, NOIDA started 3 new 11 months part-time PG Certificate courses from Sept 2008 on:
 - Retail Management
 - Banking and Financial Services
 - Human Relations and Interpersonal Communication
5. BITEC Deoghar introduced two additional disciplines, Mechanical Engg. and Production Engg. with an intake of 50 and 30 students respectively.
6. BITIC-Muscat started BBA & IT from 2008-09 session.
7. BITIC-Ras-Al-Khaimah has started new programmes in:
 - a. B.Sc. Nautical Science
 - b. B. Tech. Nautical Science.

1.4 NEW CAMPUS

Our New International Center at Mauritius has started functioning from the academic session 2008-2009.

1.5 ACADEMIC REFORMS AND CAPACITY BUILDING

Academic Reforms is an on-going process at BIT. On the basis of the recommendations of Academic Reform and Examination Reforms committees, the following reforms were implemented during the session:

- Evaluation Methodology of Theory courses
- Introduction of External Examiner for Laboratory Examinations
- Introduction of Term Papers in all Courses
- Students feedback on teachers at the end of the Semester
- On-line examination
- Setting up of Information Cell
- Pre-Placement Examination (PET) Cell
- Engineering Education Cell for Pedagogy Training.

1.6 RESEARCH COLLABORATIONS

1. Under Research Collaboration Programme, following faculty members have gone to two different universities for one year each:
 - a. Mr. Sanjay Kumar, Centre for Tele-infrastructure, Aalborg Univ., Denmark
 - b. Mr. Bharat Gupta, Univ. of Roma - Tor - Vergata, Italy.
2. Department of Mechanical Engg. has established Research collaboration with Termaz Pvt. Ltd. Mumbai and Udogini, Delhi in the field of Renewable Energy.
3. Dr. Arun Kumar was actively involved in carrying out Industrial projects of BSNL, BSEB, Birsa Munda Airport and Sports Complex at Khelgaon, Ranchi.
4. Dr. S. Medhekar has collaboration with Redendo Optics, LA, USA on "All-optical Passive Transistor".
5. Institute has collaboration with United Technology Research Centre, on "Desalination by Direct Contact Membrane Distillation" and DCMD, USA.
6. Institute has also collaboration with R&D Dynamics, USA on Water desalination by Mechanical Vapour Compression system.
7. BITEC, Jaipur started the following collaborative programmes during the session:
 - i. Joint UG Level courses in Computer Science with University of New Brunswick (UNB), Canada.
 - ii. Joint UG Level courses in Computer Science & Management with Ohlone Community College, CA, USA.
 - iii. Collaboration with National Entrepreneurship Network (NEN), India for creating awareness and imparting training for Entrepreneurship to students.
 - iv. Collaboration with SUN Microsystems (Major IT Co.), India for development of software based projects at faculty & student level.
 - v. Collaboration with ICICI, India for Joint Programme in Management – Post Graduate Programme in Management & Insurance (PGPMI).

1.7 VISITS TO UNIVERSITIES / INSTITUTES / RESEARCH LABORATORIES / INDUSTRIES

1. Dr. P. K. Barhai, Vice-Chancellor was invited as Visiting Professor to University of Duisburg, Germany under DST-BMBF Indo-German Bilateral Cooperation in Science & Technology to work on an Indo-German Project entitled "Field Emission Study of Diamond-like Carbon and Nano-Crystalline Diamond Film" during Nov. 3rd to 12th, 2008.
2. Dr. P. K. Barhai, Vice-Chancellor visited iplas innovative plasma systems GmbH, Germany for collaboration on development of Microwave Chemical Vapour Deposition System.
3. Dr. P. K. Barhai, Vice-Chancellor visited University of Wuppertal, Germany, for collaboration on Plasma Technology for Nanomaterial development on November 06, 2008.
4. Dr. P. K. Barhai, Vice-Chancellor visited Karel de Grote-Hogeschool, Department of Industrial Sciences & Technology, Belgium for discussion on proposals under "Erasmus Mundus – External Cooperation Window" on November 07, 2008 for faculty and students mobility between Europe and Indian Universities.
5. Dr. P. K. Barhai, Vice-Chancellor visited BITIC, Royal College of Engineering, Ras Al Khaimah, UAE, BITIC Bahrain and BITIC Muscat to review Under Graduate and Post Graduate Programmes during December 18-23, 2008.
6. Dr. Gopal Pathak had been invited as a visiting Professor in the Dept. of Civil & Environmental Engg., Princeton Univ., New Jersey, USA during Spring 2009 and also involved in a Collaborative Research Project with them.
7. Dr. Gopal Pathak has been appointed as a member of Scientific Advisory Board for the 24th Annual International Conference on Contaminated Soils, Sediments and Water held at Univ. of Massachusetts, AMHERST, USA during Oct. 2008.
8. Dr. (Mrs.) Nisha Gupta chaired a session and delivered an invited talk on "Research Activities in Microstrip Antennas and Computational Electromagnetics Group in BIT Mesra, in International Conference on Recent Advances in Microwave Theory and Application (MICROWAVE 2008) during Nov. 21-24, 2008 at Jaipur.
9. Dr. S. Medhekar was invited by University of Hartford CT, USA during 7th July 2008 to 12th Aug. 2008 to carryout experimentation on the fabricated All Optical Passive Transistor (AOPT).
10. Mr. Rishi Sharma visited University of Duisburg Essen Germany, under Indo-German Bilateral Cooperation in Science & Technology, DST New Delhi.

2.0 NETWORKING AND EXTENSION

2.1 NETWORKING

The Institute continues to find its place in the league of the top institutions of the country in various surveys. It is my pleasure to inform that in the 7th Audit of TEQIP under World Bank, BIT Mesra secured 9.4 on a 10 point scale.

Birla Institute of Technology, Mesra is one of the centres selected by Ministry of HRD, Government of India, for imparting distance education under the National EDUSAT Programme.

Students at our main center have already benefited from courses conducted by eminent professors from IIT Powai, Mumbai in the streams of Mechanical Engg., Computer Science, etc.

To improve teaching learning process, the Institute has been highly proactive in linking all BIT Extension Centres with the Main Campus at Mesra through video conferencing facility on a 2 Mbps IP based Virtual Private Network

(VPN). Interactive Lectures are delivered through videoconferencing at various campuses. Presently NOIDA, Jaipur and Kolkata are connected. Deoghar and Patna Campuses will be connected soon. Effort is being made to connect the International Campuses in the near future.

BIT Mesra has been requested by Deptt. of Science & Technology, Govt. of Jharkhand, to extend the videoconferencing facility to the Government Polytechnics of the State and BIT Sindri.

The Institute has also set up an E-Learning cell to facilitate the creation of a wide range of audio visual study materials to supplement the learning process experienced by the students in the class rooms. This includes power point slides, video presentations, audio tracks etc. which are made available on the Institute intranet as well as video conferencing. The Cell also provides facilities of Language Laboratory to students with Self Learning modules of English, French, German & Spanish languages through audio CDs with head-phone facility.

3.0 CAMPUS PLACEMENTS

The high quality of teaching and training imparted to its students continues to be recognized by International & National Institutes, R&D organizations and industries all over the country as reflected in the campus placement records, with 970 placement offers from 69 premier organizations.

The Institute has been a pioneer in initiation of an in-house finishing school, Competency Development Centre and a Mentorship programme connecting the existing students to senior alumni in industry placed across the world.

4.0 VISIT OF NBA, UGC TEAM AND OTHER EMINENT PERSONALITIES

1. NBA Team led by Prof. L. M. Patnayak visited BIT, Mesra during October 17-19, 2008 for accreditation of various programmes.
2. UGC Team led by Prof. V. S. Sonde visited BIT, Mesra during December 8-10, 2008 for XIth Plan.
3. Dr. Yajun HA of National University Of Singapore, Mr. I J Kapoor, Director, Commercial, NTPC Ltd., Maj. Gen. Y. V. Mohan SM VSM- ADG P&A-EME and Dr. Duh Been Lirn, National University of Singapore visited the institute on the occasion of International UNNAYAN-2009 and deliberated on various issues.
4. Dr. (Prof.) Volker Buck, University of Duisburg, Essen, Germany visited the Institute during SERC School held on December 15-27, 2008 and delivered lectures.
5. Mr. S. W. Despande, Dy. Commissioner (Retd.) Food & Drugs Control Administration, Maharashtra & Director-General, AIDCOC visited BIT, Mesra and delivered a lecture on "Spurious Drugs – Strategy for Tackling the Menace" on 19th Jan, 2009.
6. A delegation of 11 top Directors and HODs from selected universities of Netherlands visited BITEC NOIDA and exchanged ideas with faculties and senior authorities of BIT, Mesra, Ranchi on 27th January 2009.
7. Padma Vibhusan Sri G. Madhavan Nair, Chairman ISRO, Chairman Space Commission and Secretary, Dept. of Space, Govt. of India, graced the convocation held on 30th March 2009 as Chief Guest. He also visited various departments including Space Engineering & Rocatery and discussed the possibilities of research collabration in the area of Space Technology.

5.0 MEMORANDUM OF UNDERSTANDING (MOU)

The institute signed the following MOUs in this academic year:

1. MOU with R&D Dynamics Corporation, Bloomfield, Connecticut, USA for Non-Disclosure Agreement of Confidential Information to each other on June 21, 2008.

2. MOU with RAK Training Ship Sindabad, UAE for conduction of fast track B. Tech. (Nautical Science) and B.Sc. (Nautical Science) programme on June 28, 2008.
3. MOU with Dept. of Science & Tech., Govt. of Jharkhand FOR extension of period of agreement for establishment of BIT Extension Centre at Deoghar.
4. MOU with RIMS, Ranchi for one semester Clinical Internship Project training programme for B.Sc. (Medical Lab Technology) course students.
5. BIT, Mesra and Jamshedpur Cooperative Flying Club have signed an MOU during August 2008 to establish and operate Flying Training Institute in Jharkhand.

6.0 AWARD / DISTINCTION / FELLOWSHIP / MEMBERSHIP / HONOURS RECEIVED

I take this opportunity to highlight some of the achievements of our faculty members and students:

1. Dr. P. K. Barhai, Vice-Chancellor has been appointed as a member Academic Advisory Council of the Centre for TeleInfrastruktur (CTIF), Aalborg University, Denmark.
2. Dr. P. K. Barhai, Vice-Chancellor has been awarded with Life Membership of International Film and Television Club of Asian Academy of Film and Television, NOIDA.
3. Dr. S. Pal's High Temperature superconducting band-stop filter (Green Bank Telescope) has been installed in USA and this news was published in National Radio Astronomy observatory (N.R.A.O.).
4. Dr. Dev Mani Pandey, Reader, Dept. of Biotechnology served as Research Consultant at International Rice Research Institute, Philippines.
5. The Department of Architecture has attained a rare feat of being the first ever Department of Architecture in the country to be awarded Special Assistance Programme (SAP) of University Grants Commission (UGC).
6. Dr. Ajay Khare received Honorary Fellowship of the "International Centre for Study of Bengal Art" conferred at Vishwabharti, Shantiniketan on 9th February 2009.
7. Dr. Mohan Varma was conferred Shikha Ratna Puraskar-2008 by IIFS, New Delhi for attaining Excellence in Teaching Profession in India.
8. Dr. Mohan Varma was elected Member, National Executive Council, High Energy Materials Society of India, 2007-09.
9. Dr. J. K. Prasad was elected Member, Executive Committee, National Society of Fluid Mechanics and Fluid Power 2008-10.
10. Dr. R. K. Sinha, Dept. of BMI has been awarded Leverhulme Trust Visiting Fellowships to work in the area of "Brain-Computer Interface" in Univ. of Ulster, UK.
11. Ms. Vandana Sharma BITEC, NOIDA was awarded Silver Medal in 61st All India Commerce Association Conference held on Dec. 27-29, 2008
12. Mrs. S.M. Verma, Mr. A. Basu and P. Dewangan of Dept. of Pharmacy were awarded the Best Paper Award at the National seminar on Recent Trends in Drug Discovery" held at Bilaspur in 2008.
13. Dr. P. K. Barhai, Vice-Chancellor has been elected as President Plasma Science Society of India on December 11, 2008 for 2 years.
14. Dr. Asha Prasad, BIT International Centre, Bahrain has been awarded a fellowship to visit Russia for a research study entitled "Emerging trends in industrial relations in Russia" from ICSSR, Govt. of India.

15. Mrs. Archana Bhatnagar of BITEC, Jaipur received best paper Award in 6th International Conference on E-Governance.

7.0 SEMINAR / SYMPOSIA / SHORT TERM COURSES ORGANIZED

The Institute and its Extension / International Centres organized as many as 38 Seminars / Symposia / Workshops. Some of them are mentioned below:

1. Department of Pharmaceutical Sciences organized the AICTE sponsored Quality Improvement Programme on Recent Trends In Drug Discovery & Development during May 23 - June 5, 2008.
2. Department of Pharmaceutical Sciences organized the AICTE sponsored Quality Improvement Programme on Herbal Drug Development -Trends & Future Prospects during June 6 – 19, 2008.
3. Department of Appl. Mathematics conducted Instructional School on Existence and Global Attractivity of Periodic solutions of functional differential equations with Applications to Population Dynamics during June 9-23, 2008 which was sponsored by NBHM, DAE, Govt. of India.
4. Department of Biotechnology conducted All India Seminar on Recent Advances in Nanotechnology: State of Art during June 14-15, 2008.
5. Department of EEE organized ISTE-AICTE Sponsored Programme on Use of Matlab Toolboxes for real time applications during June 16–22, 2008.
6. Department of EEE organized Power Electronic Course in collaboration with Indian Railway Institute of Mechanical & Electrical Engg., Jamalpur during 30th June to 4th July and Dec. 15-19, 2008.
7. Department of Biotechnology organized National Workshop on structural bioinformatics during September 8-13, 2008.
8. Department of Remote Sensing conducted EDUSAT programme in RS & GIS during September 08 to November 08.
9. BITEC Kolkata organized workshop on “An Introduction to Computational Geometry” during September 26-27, 2008.
10. To commemorate the World Tourism Day, a one day seminar on “Tourism Responding to the challenge of climate change was organized by Department of HMCT on 27th September 2008.
11. 24th National Convention of Electronics & Telecommunication Engineers and National Seminar on Recent Advances in Wireless & Mobile Comm. was organized by Institution of Engineers (Ranchi) in association with Dept. of ECE, BIT, Mesra Ranchi (RAWMTEL-08) during October 18-19, 2008.
12. Department of ECE organized National Seminar on Devices, Circuits and Communication-08 (NASDAC2-08) during November 6-7, 2008.
13. Department of Space Engg. & Rocketry organized 22nd National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme during November 27-29, 2008.
14. BITEC Kolkata and Computer Society of India, Kolkata Chapter jointly organized an Young IT Professional Award (Eastern Region) during November 28, 2008
15. Department of Civil Engg. organized training of Technical Staff from Govt. Polytechnic, Ranchi in Civil Engg. Laboratories under “Training the Trainers Programmes” of TEQIP during December 8-13, 2008.

4. Inter University Kho-Kho Tournament was held at BIT, Mesra during January 10-15, 2009.
5. Chetan Devaraj Memorial Cricket Tournament was organized at BIT, Mesra during January 23-27, 2009.
6. Cricket team of BIT, Mesra participated in Inter Technical Institute Cricket Tournament at KIIT during March 15-20, 2009.
7. BITIC - Muscat participated in the Azaiba Beach football tournament played during Muscat Festival and MECIT Cup -2009 organized by the Middle East College of Information Technology which started from 14th March 2009.
8. BITIC – Muscat organized intra college boys and girls cricket tournament in the month of November and December 2008.
9. BITIC - Bahrain organized various sports events for the academic year 2008-09 on 23rd, 25th and 26th February 2009.

10.0 AWARD OF DEGREES

It may be mention here that during the year 2008-09 a total of 3289 students have been awarded Degrees and Diplomas in various disciplines, out of which 134 students received Post Matriculation 3 years Diploma, 2027 Graduate Degree, 1105 Post Graduate Degree, and 23 Ph.D. Degree.

I convey my sincere and hearty gratitude on behalf of myself and the entire BIT family to His Excellency the Governor of Jharkhand and the Chancellor of the Institute, Shri Syed Sibtey Razi, who has been taking inspirational and result oriented steps for the growth of higher education in the state and for gracing the occasion.

I express my sincere gratitude to the members of the Board of Governors and particularly, to Padma Bhushan Shri G. P. Birla, Chairman of the Board of Governors, for his kind encouragement, guidance and support to maintain the present standard and reputation. I also take the opportunity to convey sincere thanks to the different Departments and agencies of the Government of India as well as the Government of Jharkhand and also to the Chancellor's Secretariat. I am also thankful to Dr. H. C. Pande, Vice Chancellor Emeritus, BIT, Mesra whose dynamic leadership and vision has contributed immensely to the all round progress of the Institute.

I also express my thanks to all my colleagues, students and well-wishers of the Institute for their cooperation, help and commitment to maintain the high standard which has been attained by the Institute in the domain of Science & Technology, Engineering and Management.

Finally I would like to conclude with a reference to the goals of UGC for the XIth Plan and the report of National Knowledge Commission (NKC). One of the important goals of UGC for the XIth Plan is expansion of education involving enhancement of the enrolment ratio in higher education by 5% through various means including establishment of more universities. Further, the National Knowledge Commission (NKC) set up in 2005 as an advisory body to the Prime Minister of India has emphasized the need of the transformation of India into a vibrant knowledge based society. BIT is contributing to the former by increasing the enrolment through the establishment of extension centers and the latter through the expansion of its academic programmes.

BIT, Mesra will continue to be one of the major contributors to achieve the goals of "India - Vision 2020" as projected by the Planning Commission, Govt. of India in 2002 and to make India a Knowledge Super Power by 2020.

Introduction



The institute was established as an All India Institute of Technical Education by renowned philanthropist and visionary industrialist, Late Sri B. M. Birla in July 1955. Initially it was stated as an affiliated college of the erstwhile Bihar University and later in 1960 upon creation of new universities in the state, its affiliation was transferred to Ranchi University. In pursuance of the recommendation of the Education Commission, Government of India (1964 – 1966) and on the basis of the report of a Joint Selection Committee of the UGC and AUDIT, in March 1972, the institute was granted the status of an 'Autonomous' College by making special provision in Bihar State University Act. The chancellor of the University of Bihar made the rules for its governance.

The achievement of the Institute in terms of research and excellent academic programme led to its attaining the status of a Deemed University in August 1986 under section 3 of the UGC Act 1956.

The Institute has constantly improved on its technical infrastructure facilities as well as academic performance in order to keep pace with the fast changing technological scenario, thereby acquiring a pride of place amongst the top institutions offering technical education in the country. The Institute celebrated its Golden Jubilee in 2004 and the first batch of students will be celebrating Golden Jubilee of their graduation in 2009.

Administration

B. I. T. Mesra is a "Deemed University" under Sec. 3 of the U. G. C. Act 1956. His Excellency; The Governor of Jharkhand is the Chancellor of the University. It functions under the overall supervision, direction and control of a high power Board of Governors, comprising representatives of the Ministry of Education, Government of India, U.G.C, State Government, A.I.C.T.E, The Hindustan Charity Trust and the Institute Faculty. Shri G.P. Birla is the Chairman of the Board of Governors. Composition of the Board of Governors is given in Annexure – II.

The finance committee gives financial advice to the Institute and Building & Works Committee advises Institute in matters relating to building works. The compositions of these committees are given in Annexure –III & IV.

The Technical Council decides the academic policy of the Institute. It approves the curriculum, courses and the examination results. It appoints committees like Regulation Committee for Under – Graduate and Post – Graduate Courses, Semester Programme Coordination Committee, Admission Committee, Scholarship Committee, Students Welfare Committee etc. and Departmental Board of Study to look into specific academic matters arising from time to time. The teaching, training and research activities of various Departments at the Institute are constantly under review to monitor both facilities and standards. The Vice – Chancellor of the Institute is the Chairman of the Technical Council. Members of the technical council are listed Annexure – V. The composition of Departmental Boards of Study is given in Annexure –VI.

Institute Campus

The Institute is fully residential and extends over 780 acres. The main building of the Institute covers an area of 30,000 sq. mtrs. which accommodates the various research and training laboratories, administrative offices and lecture rooms.

The workshop annexure has covered area of 4,000 sq. mtrs. The laboratories and offices of the Department of Space Engineering & Rocketry are situated for security reason in a sub – Campus, about half a Kilometer away from the main building. For the convenience of working Engineers to participate in Post - Graduate Programmes, a Technology centre was established in Ranchi City at Lalpur in 1976. The campus is self - contained amidst well – laid lawns, with its own protected water supply, marketing centre, dispensary, bank and schools.

Institute Building	(Sq. Mtrs.)
Main building & Administration block	- 3700
Class room & laboratory, Drawing halls, Staff room's etc	- 19300
Library block	- 2600
Mini – Auditorium	- 450
Services & Circulation area	- 3950
Space Engg.& Rocketry block (Including Explosive, Fuel cell & Cryogenic laboratory)	- 2490
Workshop sheds, General stores, Garage/ Godown	- 4880
Gymnasium	- 850
Indoor Badminton Stadium	- 1000

Animal House	-	400
R & D Building	-	7200
Multi – Purpose Halls	-	785
Biotechnology Centre	-	3477
Polymer Engineering	-	744
Lecture Theatre – I	-	1143
Lecture Theatre – II	-	1535
Hotel Management & Catering Technology Building	-	2835
Pharmaceutical Science Building	-	3220
Golden Jubilee Auditorium	-	3280

Residential Complex

Staff quarters in different categories	-	422
Residential complex for supporting services (Guards, Dairy Shopkeepers, Washer man etc.)	-	116

Hostel Accommodation

Eleven Boys' Hostel	-	2552
Four Girls' Hostel	-	338 Rooms (Double) & 196 Rooms (Single)
Research Scholars' Hostel	-	112 Rooms (Single)

Guest Accommodation

The Institute maintains three Guesthouses. Two general purposes with 38 furnished rooms and one VIP Guest-House with 3 deluxe bedrooms to accommodate VIP Guests.

Auditorium

To meet the every growing needs of the Institute and students' activities there is a Golden Jubilee auditorium having the seating capacity of approximately 2500 persons.

Moreover, one Mini – Auditorium and three seminar halls are also there, having the seating capacity of 450 and 100 each respectively to cater the needs are various Departments' and academic activities.

Games & Sports Complex

The Institute has a Gymnasium with multigym facilities, which is spacious enough to arrange indoor games. Extensive playgrounds are provided for various sports. The facilities include

Gymnasium including Multi – Gym	-	1
Stadium for Track & Fields for Sports/ Athletics	-	1
Cricket ground including net	-	2

Football grounds	-	2
Hockey grounds	-	2
Basket Ball courts	-	4
Volley Ball courts	-	6
Tennis courts	-	6
Badminton courts (three indoor & five outdoor)	-	8
Kho – Kho ground	-	1
Kabaddi ground	-	1

Dispensary – Cum – Health Centre

Facilities Available

O.P.D Services	-	8 A.M to 12 .00 Noon 4.00 P.M. to 8.00 P.M.
Emergency Services	-	Round the clock
Total No. Beds	-	12 (Male -8, Female – 4)
X – ray	-	2
E. C.G	-	1
Oxygen Facilities		
Suction Machine Facility		
Medical Officers	-	05
Paramedical Staff / Compounders	-	13
Anti Natal Clinic	-	During OPD Timing except Sunday and Institute's Holidays
Ambulance Facilities	-	Round the Clock
Pathological Lab Facility	-	8.00 A.M to 12.00 Noon & also during emergency
Immunization	-	8.00 A.M to 12.00 Noon (Every Wednesday)

Visiting Physician:

Apart from regular medical officers, the medical services are also provided in the following areas through visiting Physicians.

Physiotherapy	-	8.00 A.M to 10.00 A.M. (Monday to Saturday)
Dentistry	-	8.00 A.M to 10.00 A.M. (Wednesday to Sunday)
Paediatric Clinic	-	8.00 P.M to 10.00 P.M. (Monday to Friday)
Homeopathic Clinic	-	2.00 P.M to 4.00 P.M. (Tuesday,Thursday & Saturday)
Eye & Skin Clinic	-	8.00 A.M to 10.00 A.M. (Every Sunday)
Homoepathic Physician	-	8.00 A.M to 11.30 A.M. & 4.00 P.M to 7.00 P.M.
Gynaecologist	-	Wednesday & Saturday 4.00 P.M. to 6.00 P.M., Sunday 10.00 A.M. to 11.00 A.M.

Besides this we have one Dispensary in the University Poltechnic campus for students & staff members of University Polytechnic. One Dispensary in the BIT Extension Centre, Lalpur campus for students and staff members of BITEC, Lalpur. One Rural Dispensary outside the campus for villagers residing near BIT Mesra under community Health Services Scheme of the Institute.

Other Programmes:

- Blood donation camp, Eye camp, Gynaecological camp are organized at frequent intervals.
- During emergency patients are referred either to RIMS or to private Nursing Homes and Hospitals including Apollo Hospital and Sirdi Sai Hospital depending upon the situation as per desire of the Patient / Gurdians of patients
- Permanent faculty and staff members are covered by Group Mediclaim Policy in hospitalization cases
- Organizing Medical camp in villages also carries out community Health services.
- Programmes like Pulse Polio immunization, T.B. eradication, Leprosy eradication, Blindness removal etc. are regularly organized under National Health Services Scheme.

Shopping Centre:

A well-maintained Co-operative store provides the daily requirements of the campus of nearly 5,000 residents. Additional Shopping Complex provide the sundry needs. The construction of a full-fledged Marketing Complex and Cooperative Book Store to meet the growing needs of the Campus has been completed. The annual commodity sold through these outlets of the Campus exceeds Rs. 3 crores mark in value.

Others:

Consumers' co-operative stores	-	375 Sq. Mtrs.
NCC Block	-	400 Sq. Mtrs.
Rifle Firing Range	-	1 No.
NCC Parade ground	-	1 No.
Community Hall	-	1 No.
Canteen	-	2 Nos.

The students' Halls of Residence:

The Institute is completely residential and all the students are provided with rooms in one of the hostels or Halls of Residence. The campus has eleven hostels for boys and four separate hostels for girls. All the hostels are spacious with beautiful lay out in the serene and pleasant campus. The front portion has well maintained lawns with flowerbeds, elegant bushes and strategically planted ornamental trees. The interior of the hostels includes spacious dining halls, common rooms, and reading rooms. Rooms located on both sides of the entrance. The rooms are constructed in a row with a wide veranda in all along the length with air gaps and balconies well set for common use.

The students are provided with single seated rooms furnished with steel cot, table, chair and a built – in almirah. The girl students avail a shared furnished room, which is quite spacious and airy. Each room has a cupboard, wardrobe and a sizeable rack. Indoor games like table tennis, carom and chess etc. are available in the common rooms of each hostel. The reading room subscribes to a large no of magazines, periodicals and newspapers covering wide taste of reading of the residents. The entertainment hall, in each hostel, has also been provided

with colour television set. Inter-hostel tournaments in indoor and outdoor games, quizzes, and adventure trips are very attractive features of the hostel life.

The hostel night organized by the inmates is a memorable yearly event where students interact with the faculty members amidst cultural and music programmes, in festive mood. The halls are aesthetically decorated to mark the occasion.

Each hostel has an independent Mess, completely managed by the students through Mess committee members elected by the residents themselves. The committee looks after the Mess Bill under the supervision of the Superintendent/ Assistants Superintendents of the hostels.

Students Intake:

Programmes:

Currently the Institute is offering programmes as detailed below

Main Campus

Programme	Year of Introduction of the Programmes	Duration of the Course	Intake Capacity
Bachelor of Engineering			
Electrical & Electronics	1955	4 Years	60
Mechanical	1955	4 Years	90
Civil	1957	4 Years	60
Electronics & Communication	1964	4 Years	120
Production	1964	4 Years	30
Computer Science	1983	4 Years	120
Polymer	1995	4 Years	30
Information Technology	2001	4 Years	60
Biotechnology	2002	4 Years	60
Bachelor of Pharmaceutical Sciences	1972	4 Years	60
Bachelor of Architecture	1993	5 Years	40
Bachelor of Hotel Management & Catering Technology	2002	4 Years	60
Master of Engineering			
Electrical & Electronics Specialization 1. Control system 2. Power system	1964	2Years	24
Mechanical Specialization 1. Heat Power Engineering 2. Design of Mech. Equipment	1964	2Years	12

Civil Specialization 1. Soil Mechanics 2. Structure & Foundation Engineering	1964	2Years	24
Electronics & Communication Specialization 1. Instrumentation 2. Microwave	1965	2Years	24
Space Engineering & Rocketry Specialization 1. Rocket Propulsion 2. Aerodynamics	1965	2Years	24
Computer Aided Design & Drafting Specialization 1. Comp. Aided Analysis & Design 2. Tribology	1999	2Years	18
Automated Manufacturing System	1996	2Years	25
Software Engineering	2000	2Years	15
Quality Engineering & Management	2002	2Years	25
Polymer	2003	2Years	18
Master of Technology Programme			
Remote Sensing	1997	2 Years	18
Fuels & Combustion	2002	2Years	25
Computer Science	1994	2Years	16
Scientific Computing	2002	2Years	16
New Materials & Processing Technology	2002	2Years	18
Environmental Science & Engineering	2002	2Years	18
Master of Pharmaceutical Sciences Specialization 1. Pharm. Chemistry 2. Pharmaceutics 3. Pharmacology 4. Pharmacognosy	1983 1983 2004 2002	2 years	36 + 8(QIP)
Master of Urban Planning	2006	2Year	12
Master of Science Programme			
Biomedical Instrumentation	1992	2 Year	20
Information Science	1993	2Years	30

Bio Informatics	2006	2Years	30
Geo Informatics	2006	2Years	10
Applied Physics	2008	2 Years	30
Applied Chemistry	2008	2 Years	30
Applied Mathematics	2008	2 Years	30
Master of Business Management Specialization 1. Marketing 2. Finance 3. System 4. Industrials Management	1980	2 Years	120
Master of Computer Application	1984	3 Years	60
Bachelor of Food Processing Technology	2009	3 Years	30

Continuing Education (Part Time) Post – Graduate Programme:

To enable working Engineers to update their technologies, the part – time Post – graduate Programme offers 3 levels

1. A certificate of Merit after Completing 6 units.
2. A diploma after completing 12 units.
3. Degree after completing 20 units.

Extension Centres

Course	Allahabad	Jaipur	Lalpur	Kolkata	NOIDA	Patna
B. E		80				120
BCA	100	80	200	90	80	
BBA	40	80	200	90	80	
B. Sc. (A&M)		60			80	
B.Tech.	20					
MCA	45	45	105	45	60	
MBA		45	60		60	
MBA (PT)*			30			
MCA (PT)*			30			
M. Tech. (CS), PT*			30			
M. E. (P.T)*						
M. Sc. (I.T)			30			
M. Sc. Bioinformatics		30		30		

* Courses are offered subject to availability of minimum number of candidates for the programme and approval of the Department.

Doctor of Philosophy Programme (Ph.D.):

The Institute offers Research Programmes leading to Ph. D. Degrees in all above disciplines.

Admission during 2008 – 2009**Students Enrolment:**

During the academic year 2008 – 2009, total of 10326 students were registered in various courses. The branch – wise enrolment is given below.

Sl.No.	Course	No. of Students
1.	Bachelor of Engineering	3603
2.	Bachelor of Architecture	166
3.	Bachelor of Pharmacy	184
4.	Bachelor of Hotel Management & Cat. Tech.	133
5.	Bachelor of Computer Application	1674
6.	Bachelor of Business Administration	2215
7.	Bachelor of Technology	61
8.	B. Sc. (A & M)	142
9.	B. Sc. (I. T.)	126
10.	B.Com	112
11.	Integrated Engineering	42
12.	B.B.M.	22
13.	Master of Business Administration	696
14.	Executive (Master of Business Administration)	125
15.	Master of Computer Applications	1001
16.	Master of Pharmacy	88
17.	Master of Engineering	104
18.	Master of Technology	97
19.	M. Sc. (Information Science)	6
20.	M. Sc. (Bio Medical Instrumentation)	51
21.	M. Sc. (IT)	48
22.	M. Sc. (Bio-informatics)	67
23.	M. Sc. (Geo-Informatics)	6
24.	M.Sc. (Applied Physics)	1
25.	M.Sc. (Applied Chemistry)	2
26.	B.B.A. (PT)	288
27.	Inst. of Engg.	26
28.	MUP	13
29.	PGPMI	23

30.	B.C.A. (PT)	19
31.	Diploma in Engg.	310
32.	B.Sc. (MLT)	131
33.	B.E. (Marine)	633
34.	B.Sc. (N.Sc.)	97
35.	Foundation Course (FBA, FCA, FBAPT, FEN)	216
36.	BAM	222
37.	B.Tec.	58
	Total	12,808

Enrolment in Ph. D. Programme

122 new scholars have been registered for the Ph. D. Programme in the area of Engineering Science, Pharmacy and Management during the session 2008 – 2009. The details are given below

Sl. No.	Name	Department/ Centre	Title of the Thesis
1.	Mr. Manoj Kumar Saini	Applied Chemistry	"Construction of a Generalized formula of Mineral matter"
2.	Mr. A.K.P. Singh	Applied Chemistry	"Utilization of Basic Oxygen Furnace (BOF) Sludge"
3.	Mr. Sandipta Ghosh	Applied Chemistry	"Synthesis of non-ionic anionic and cationic tamarind kernel polysaccharide (TKP) :their characterization and application"
4.	Dr. (Mrs.) Jyotika Srivastava	Applied Mathematics	"Mathematical Models and Simulation for the spread and Treatment of tuberculosis in Jharkhand"
5.	Mr. Aditya Kumar Singh	Applied Mathematics	"A Study of some Mathematical Models and simulation on Cyber Attack and Defense"
6.	Mr. R.T. Goswami	Applied Mathematics	"Epidemic Models on the attack and defense of Malicious objects in Computer network"
7.	Mrs. Rekha Tiwary	Applied Mathematics	"Mathematical Modeling of Microseismic Waves in Layered Media"
8.	Ms. Latha R	Applied Mathematics	"Effect of Aerosols on evapotranspiration - observations and model evaluation"
9.	Ms. Arpita Srivastava	Applied Physics	"Modeling and Analysis of Nonlinear Waveguide Devices for All-Optical Logic Gates"
10.	Ms. Noushin Asif	Applied Physics	"Spatial Optical Solitons in Photorefractive Media and Possible Applications in Optical Communications"
11.	Mr. Bimal Chandra Roy	Architecture	"Industrial Development Strategy for Resource based State with reference to Jharkhand"

12.	Ms. Sangita	Architecture	"Enhancing Urban Competitiveness study with reference to select Indian Cities"
13.	Mr. U.P. Singh	Biotechnology	"Biomethanation of Non-Extractable Coal : An Engineering Economic Model of Sustainable Energy and Environment Security"
14.	Mr. Deepak Rastogi	Biotechnology	"Evaluation of Technology of Molasses based Ethyl Alcohol Production in Industries"
15.	Mr. Ashutosh Kumar	Biotechnology	"Molecular Approach towards the identification Genes to enhance the submergence tolerance in Rice (Oriza sativa L.)"
16.	Ms. Nivedita Chaudhary	Biomedical Instrumentation	"Simulation of Biochemical Classification of Neuro-degenerative Disease"
17.	Mr. Narayan Kumar Mishra	Civil Engg.	"Prioritization of Saphi Watershed in Ranchi District of Jharkhand through Geoinformatics"
18.	Mrs. Amritanjali	Computer Science	"Designing Efficient Algorithms for Analyzing Genome Rearrangements in Molecular Evolution"
19.	Mr. Raman J. Jha	Electronics & Comm. Engg.	"Optimization of Antenna Design on EBG Substrate"
20.	Mr. Sanjay Shankar Tripathy	Electronics & Comm. Engg.	"Development of Information Based Image Retrieval"
21.	Mr. Vishal H. Shah	Electronics & Comm. Engg.	"Signal Processing Techniques for Remote Patient Monitoring"
22.	Mr. Sukanta Kumar Dash	Electronics & Comm. Engg.	"Design and Development of Advanced Wireless Circuits using Electromagnetic Band Gap Materials"
23.	Mr. Dileep Kumar Upadhyay	Electronics & Comm. Engg.	"Characterization and Experimental Verification of new Microwave Circuits Using Materials in Wireless Communications"
24.	Mr. Dambarudhar Seth	Electronics & Comm. Engg.	"Development of an efficient medium access control protocol for mobile adhoc network in Multihop environment"
25.	Mr. Pawan Kumar	Electronics & Comm. Engg.	"Speaker Recognition"
26.	Mr. Achyuta Nand Mishra	Electronics & Comm. Engg.	"Robust Features for Audio Visual Hindi speech Recognition"
27.	Mr. Kartik Mahto	Electronics & Comm. Engg.	"A Statistical Analysis of Indian Classical Music Performance"
28.	Mr. Vijay Kumar Gupta	Electronics & Comm. Engg.	"Acoustic Echo Cancellation and Noise Minimization from Audio Signals Using Appropriate DSP Processor"
29.	Mrs. Itu Snigdh	Electronics & Comm. Engg.	"Soft Computing Techniques in Wireless Sensor Networks"
30.	Mr. Shyam Lal	Electronics & Comm. Engg.	Enhancement of Compressed Images in Wavelet Based Domain"

31.	Mr. S. Devendra K. Verma	Electronics & Comm. Engg.	Design & Development of 'Programmable Transceiver Controller A Nanotechnology Device' for WiMAX/WiFi Wireless Communication"
32.	Ms. Shatabdi Chakraborty	Electronics & Comm. Engg.	"Some Investigations on Gain Enhancement of Integrated Microstrip Antennas"
33.	Mr. A.K. P. Singh	Env. Sc. & Engg. Group	"Utilization of Basic Oxygen Furnace (BOF) Sludge"
34.	Mr. Manibhushan	Information Technology	"Soft computing approach for classification of land user/cover from satellite Images"
35.	Mr. Chingtham Tejbanta Singh	Information Technology	"Modeling Artificial Immunity as an Unsupervised Learning Paradigm for an Intelligent Man –Machine Interaction System"
36.	Mr. Kuntal Mukherjee	Information Technology	"Performance Analysis of Cloud Computing and its use in e-Governance : A case study of Jharkhand State"
37.	Ms. Swati Priyadarshani	Management	"Balancing Family & Work life: A study of Working Women of Organized Sector in Jharkhand State"
38.	Mr. Rajiv Ranjan, IFS	Management	"Corporate Social Responsibility and Sustainable Development: Developing an Approach for Inclusive Growth in Jharkhand"
39.	Ms. Syeda Asma Fatima	Management	"Comparative Assessment of Accreditation on Information Systems"
40.	Dr. Syed Jaleeluddin Hyder	Management	"Comparative Assessment of Accreditation on Human Resource Management"
41.	Ms. Tanushree Bhatnagar	Management	"Study of the Role & Effectiveness of ICT in e-Governance in India: A Case Study of Jharkhand State"
42.	Mrs. Aarti Sarpal	Management	"Consumer Decision Making Style : A study in Indian Retail Market"
43.	Mr. Anthony Thiagarajan	Management	"A study on the impact of competencies on performance Drivers"
44.	Mr. B. Ramesh	Management	"An analytical study of total cost of ownership for bulk transportation Equipment"
45.	Mr. Debabrata Bhattacharjee	Management	"Strategic Collaboration between Oil Sector and Auto Service Sector"
46.	Mr. Sandeep Kumar Singh	Management	"A comparative Study on Effectiveness of Human Resource Performance Management System in Indian Companies"
47.	Mr. Sawan Kumar R. Naik	Management	"Relevance of CoQ Model in Current Business Scenario towards survival of Industries"
48.	Mrs. Manisha Karandikar	Management	"Impact of collectivism on impulse Buying in India"
49.	Mr. Ramasubramanian	Management	"Technology Application in Learning Communities - An Krishnan Analytical study"

50.	Mr. Pallav Gupta	Management	"Maximizing Rural Teledensity & Linking to GDP"
51.	Mr. Ranjan Kumar Mohapatra	Management	"Re-Engineering the Logistics Value Chain of a Petroleum Products Marketing Company"
52.	Mr. P. Vijayaraghavan	Management	"Enhancing Optimal Containerization for Multimodal logistics in India"
53.	Mr. Uttiya Bhattacharyya	Management	"Design and development of a decision support System for supply Chain management in Petroleum Industry"
54.	Mr. Brijesh Ainapur	Management	"Theory of Constraints Approach for Supply Chain Performance Enhancement in Indian Iron & Steel Foundries"
55.	Mr. M. Srinivasan	Management	"A Study of the Influence of Service variables on the Buyer- Seller relationship in the Auto Component Manufacturing Industry"
56.	Mr. V.S. Venkataraman	Management	"A study on assessment of value innovation potential for automobile component Industry"
57.	Mr. Surajit Roy	Management	"Re-Engineering the LPG Cylinder Supply Chain System in Petroleum Industry"
58.	Mr. R. Ramkumar	Management	"Impact of Micro Finance in improving Quality of Life - Some Studies in India"
59.	Mr. Himanshu P. Kulkarni	Management	"An Analytic study of Socio-Economic impact assessment of SEZ (Indian Scenario)"
60.	Mr. Dilip Hari	Management	"Study of Emotional Intelligence and its Impact on Corporate leadership in Oil Industry in India"
61.	Mr. Prakash Abraham	Management	"A Study on Employer Attractiveness in Public Sector Oil Marketing Companies"
62.	Mr. G. Rajender Reddy	Management	"Demand Side Management of Indian Power Sector"
63.	Mr. S. Krishnamurthy	Management	"Mentoring Systems and Processes in Indian Organizations"
64.	Miss. Tanya Gulati	Management	"Under pricing of Initial Public Offerings – A Study In Indian Stock Market"
65.	Mr. Mihir Ajaonkar	Management	"Psychological Correlates of Organizational Citizenship Behavior"
66.	Prof. Balram S. Iyengar	Management	"Evaluative Study of Real Estate Investments in India And UAE – A prescriptive model for sustainable development by adopting best practices"
67.	Mrs. T. Malini	Management	"A Critical Study of Purchase Portfolio Approach to Evolve Sourcing Strategy for Auto-motive Industry in Indian Environment"
68.	Mrs. J. Umarani	Management	"New Product Development in Indian Food Industry - A Managerial Perspective"

69.	Mr. V. Ramaiah	Management	"State Owned and Private Electricity Distribution Companies in India : A comparative Study of Performance"
70.	Mr. V.N. Sundharam	Management	"A Study on Liquor Manufacturing Industry for Sustainable Growth using Business Process Reengineering"
71.	Mr. T.R. John Prasad	Management	"Synergic Goals of Competitive Collaboration in Airline Industry with Reference to Jet Airways and Kingfisher Airlines"
72.	Mr. Balasubramani	Management	"Corporate Reporting Practices on Sustainable Development – A Comparative Study of Indian and Global Enterprises"
73.	Mr. Surya Pr. Gupta	Management	"Development & Validation of an Operations Maturity Model and Study its Impact on Performance Drivers- Aerospace Engineering Service Industry"
74.	Mr. Krishnan Jagadeeswaran	Management	"Bench Marking Best Practices of Auto components SME Clusters"
75.	Mr. Jagadish Ch. Saboo	Management	"Entrepreneurial Responses in Developing Sustainable Small & Medium Enterprises : An Indian Study"
76.	Mr. Abhay Kr. Shukla	Management	"A Socio-Techno-Economic Study of Liberalization in Indian Telecom Sector"
77.	Mr. Alok Agrawal	Management	"An Evaluation of Impact of Advertising on the Demand of Commodity Products A-Study on Indian Glass Industry"
78.	Ms. Ela Goyal	Management	"Analysis of Information and Communication Technology Usage in Management Education and Training: A Multi-Stakeholder Perspective"
79.	Mr. Jyortimoy Dasgupta	Management	"Risk Management Framework for Software Service Industry"
80.	Mr. Mani R.V.S.	Management	"Linking Information Technology (IT) enabled Relationship Management Portfolio of Applications, IT Capabilities and Firm's Performance"
81.	Mr. O.P. Pandey	Mechanical Engg.	"Investigation on Heat and Mass Transfer during Dehydration of some Agro-products"
82.	Mrs. Kavita Gahlot	Pharmaceutical Sciences	"Pharmacognostic and Pharmacological Evaluation of Flemingia species of Uttarakhand"
83.	Mrs. Priyashree Sunita	Pharmaceutical Sciences	"Pharmacognostical, Phytochemical and Pharmacological Investigation on an Ayurvedic Plant, Cressa cretica Linn"
84.	Mr. Sandeep Kumar Bansal	Pharmaceutical Sciences	"Design, Synthesis and Pharmacological Screening of GABA Analogues as Novel Anticonvulsants"
85.	Ms. Vaishali M. Patil	Pharmaceutical Sciences	"Design, Synthesis and Biological Evaluation of Anti-Hepatitis C Agents"

86.	Mr. Ramesh Ashok Herole	Pharmaceutical Sciences	"Design, Synthesis and Studies of Some Linear and Cyclic Antiobesity Peptides and Nonpeptides"
87.	Ms. Lata Khani	Pharmaceutical Sciences	"Design, Synthesis, Antiepileptic studies of Linear and Cyclic Peptides and Non Peptide Compounds"
88.	Mr. Abhimanyu Dev	Pharmaceutical Sciences	"Development of Different Microencapsulated Colon Targeted System of Vibriol as Vaccine"
89.	Mr. Prem Prakash Singh	Pharmaceutical Sciences	"Pharmacognostical, Phytochemical and Pharmacological Studies on Calamintha officinalis Moench"
90.	Mr. Biswatrish Sarkar	Pharmaceutical Sciences	"Antioxidative and DNA protective properties of Anthocyanins"
91.	Mr. Subhasis Banerjee	Pharmaceutical Sciences	"Synthesis and Study of Some Triazole Analogs"
92.	Mrs. Nibha Mishra	Pharmaceutical Sciences	"Pharmacological studies of Enzyme inhibitors identified through Computational pharmacological approaches against Alzheimer's disease"
93.	Mr. Arijit Basu	Pharmaceutical Sciences	"Design, Synthesis and Biological Evaluation of some Amidoxime Analogues"
94.	Ms. Archana Kumari	Polymer Engg.	"Development and Characterization of Cellulose Acetate and Silane based Hybrid Membrane for Water Purification"
95.	Mr. Kapil Deo Prasad	Production Engg.	"Improving quality, productivity and business performance of brassware manufacturing Industries"
96.	Mr. Binay Kumar	Production Engg.	"Platform and Modularity based Product development for improvement of competitive capabilities"
97.	Mr. Purnanand Pathak	Production Engg.	"Tribological approach for improvement in productivity and quality of flat rolled steel"
98.	Ms. Richa Pandey	Production Engg.	"Application of reverse engineering in cottage industries to achieve manufacturing excellence"
99.	Ms. Megha Lal	Production Engg.	"Improving the agility of a manufacturing organization by core process re-engineering"
100.	Mr. Partha Pratim Ghosh	Remote Sensing	"Natural Resource Inventory and Characterization of Rainfed Agricultural Ecosystem of Eastern Plateau Area Using Geo-Informatics"
101.	Mr. R. Nagarjuna Kumar	Remote Sensing	"Decision Support Systems for Impact of Climate change Future Water Requirement of Fruit Crops in Arid and Semi Arid Region of India"
102.	Ms. Shruti Kanga	Remote Sensing	"Forest Fire Susceptibility Risk Modeling and Management : A Geospatial Approach "
103.	Mr. Praveen Kumar Rai	Remote Sensing	"GIS based assessment of population dynamics and Health Management plan in Varanasi District UP"

104.	Mr. Nitish Kr. Sinha	Remote Sensing	"Modeling for Identification of critical erosion prone areas in the Damodar River Basin using Geoinformatics"
105.	Ms. Piali Haldar	BIT Extn. Centre, Lalpur	"Rural Retailing and its Impact on Economic Development"
106.	Ms. Smriti Mishra	BIT Extn. Centre, Lalpur	"Multi-Product Revenue Management under salvage consideration : Optimization with different Swarm Intelligence Techniques"
107.	Mr. Siddhartha S. Maiti	BIT Extension Centre, NOIDA	" Study of Lac Marketing in India"
108.	Ms. Lakshmi Kalyani	BIT Extension Centre, NOIDA	" m-CRM: An effective tool for enhanced CRM"
109.	Ms. PRIYA	BIT Extension Centre, NOIDA	"A study of effectiveness of CRM system for cross selling in changing banking environment"
110.	Lt. Col. Singudasu Babu Rao	BIT Extension Centre, NOIDA	"An Empirical Study on Post Merger Integration Issues"
111.	Mr. Indrajit Bhattacharya	BIT Extension Centre, NOIDA	"Study of Attrition of Knowledge Workforce in Healthcare and Retention Strategy"
112.	Mr. Amit Kumar Goel	BIT Extension Centre, NOIDA	"MAS Multi Agent System in Supply Chain Management for Auto Sector (for Hero Honda Ltd.)"
113.	Ms. Ankur Jain	BIT Extension Centre, NOIDA	"Significance of Quality Practices and its effect on Job Perceptions in Software Industry in India"
114.	Ms. Neha Bajpai	BIT Extension Centre, NOIDA	"The Work Life Balance Factors and their impact on retaining hi-tech employees"
115.	Miss Nirmala Soren	BIT Extension Centre, Patna	" Some Studies on Application of Artificial Intelligence Techniques in Deregulated power system"
116.	Mrs. Paramjit Kour	BIT Extension Centre, Patna	" Study of some Lanthanide- Alkaline earth element modified lead Zirconate titanate Ceramics"
117.	Mr. Suresh Kumar	BIT Extension Centre, Patna	"Studies of some Aliovalently doped Lithium Titanate Ceramics"
118.	Mr. Jamal Ekelen Said	BITIC, RAS AI Khaimah (UAE)	"Prospects and consequences Real Estate Development in UAE : A model for strategic management and sustainability"
119.	Mr. Dileep Tanksali	BITIC, RAS AI Khaimah (UAE)	"Compatibility of higher education vis-à-vis industrial requirements with specific reference to Engineering, Commerce and Management streams"
120.	Mr. Avnish Vijay	BITIC, RAS AI Khaimah (UAE)	"Customer Satisfaction in higher education"

121.	Ms. Haseena Beegum M.	BITIC, RAS AI Khaimah (UAE)	"Employees Morale and Motivation : A Case Study of Dubai Duty Free"
122.	Mr. Ashok Christofer Abraham	BITIC, RAS AI Khaimah (UAE)	"Positive Organizational Behaviour – An empirical Study of the various constructs of POB and its relevance to the Middle East Market"

Ph. D. Thesis Submitted

Sl. No.	Name	Department/Centre	Title of the Thesis
1.	Rachna Khare	Architecture	Designing Inclusive Educational Spaces for Autism.
2.	Gautam Sen	Applied Chemistry	Synthesis and characterization of hydrolyzed and unhydrolyzed polyacrylamide grafted carboxymethylstarch (CMS-g-PAM) and their applications
3.	Ashish chandra singh	Applied Chemistry	Studies of Metal Ion uptake behavior of chemically modified silica gel.
4.	Shayam Sunder Majhi	Applied Chemistry	Non-linear pattern through frontal polymerization.
5.	Sumit Mishra	Applied Chemistry	Environmental Assessment of coal combustion residues with particular reference to leaching of trace elements from some thermal power station of India.
6.	P Kaur	Applied Mathematics	Fuzzy approach multicriteria decision making problem
7.	M. Sathiamoorthy	Applied Mathematics	Finite elements analysis in convective heat transfer problem
8.	Manoj Mishra	Applied Physics	Investigation on Propagation Characteristics of Dispersion Managed Breathers in Long-Haul Optical Communication System
9.	P. P. Paltani	Applied Physics	Investigation of Light Beam Propagation in nonlinear for Media for All-optical devices.
10.	Parul Makhija	Biotechnology	Study of protease from halophilic bacteria.
11.	N. Sivaramaiah	Biotechnology	Proteomic analysis of lignolytic and non-lignolytic cultures of White Rot Fungi.
12.	Inamul Haque	Biotechnology	Development of molecular markers and biodiversity study of Guggul (<i>Commiphora wightii</i>).
13.	Y. Aggarwal	Biomedical Instrumentation	Simulation and Modeling of Human Thermoregulatory Mechanism under Heat Stress
14.	K.S.Patnaik	Computer Science & Engineering	Modeling and Designing Intelligent Systems for Pattern Classification.
15.	K. K. Patnaik	Computer Science & Engineering	Grid Resource Management and Application Scheduling
16.	Dilip Kumar	Electronics & Communication Engineering	Studies of higher order mode coupling in birefringent optical fiber and its application in fiber optic sensing system

17.	Dayanand Deen	Electronics & Communication Engineering	Development of Sensors and Microcontroller Based Monitoring of Machines Condition and Powered Support for Longwall Mine
18.	A. Srinivasulu	Electronics & Communication Engineering	Some New Current – Base Topologies for Triangular/ Square Waveform Generators
19.	P. Chatterjee	Electrical & Electronics Engineering	Application of Neural Networks and Fuzzy Logic in Drives
20.	P.K. Upadhyay	Electrical & Electronics Engineering	Application of Soft computing in Time series analysis and prediction
21.	S.G. Kadwane	Electrical & Electronics Engineering	Design and Implementation of Conventional and Neuro Fuzzy Controllers for Switch Mode DC to DC Converter Under Different Load Conditions
22.	D. Sinharoy	Electrical & Electronics Engineering	Software Reliability Analysis of Computer Relaying using Wavelet neuro-fuzzy approach
23.	Manuj Darbari	Information Science	Application of Unified Theory and Activity Theory for Software Modelling
24.	Vijay Agarwal	Management	Indian manufacturing industries- causes of it's declining trend and it's impact on Indian economy
25.	S. N. Singh	Management	A study of influencing factors in management of technology in India with special reference to rolling mill technology in integrated steel plants
26.	Rajeev Lochan Dhar	Management	Changing trends of processes carried out by recruitment agencies: A study of Pune metropolitan region
27.	Rina Agarwal	Management	Knowledge management based techniques in resolving complex problems of high risk turn-key projects
28.	Anant Kumar Srivastava	Management	A study of investment pattern and application pattern of IT in Indian business system: A framework for analysis of the impact and status of IT diffusion in business process
29.	Mahendra Kumar	Management	Deviation in productivity and restoration of energy in human resources and it's management with preference to physical activities of sports
30.	Roma Mitra Debnath	Management	Modeling quality issues in curriculum development in technical education
31.	Tarak Nath Shaw	Management	Study of influencing factors on the effectiveness of entrepreneurs
32.	Santanu Das	Management	Management of non-performing assets in India public sector banks with special emphasis on Jharkhand
33.	S.G. Rakesh	Mechanical Engineering	Studies on the Crowded Movement in Pedestrian Paths and in Panic Situation using Non-linear Shock Wave Dynamics

34.	Rakesh Dwivedi	Mechanical Engineering	Optimum Design of Dust Collector Aero-cyclone using Genetic Algorithm
35.	V.S.Chauhan	Mechanical Engineering	Some Studies on Electromagnetic Radiation during Plastic Deformation and Fracture in Titanium
36.	Ashutosh Misra	Pharmacy	Formulation Development and Evaluation of Transdermal Drug Delivery System of Some Drugs
37.	Anima Pandey	Pharmacy	Studies on wound healing properties of Artocarpus lakoocha Roxb.(Moraceae)- A plant of Chotanagpur (Jharkhand).
38.	R.N. Thakur	Pharmacy	Clinical Study of some Ayurvedic Drugs in case of Rheumatoid and Degenerative Arthritis
39.	Abhishek Kumar	Pharmacy	Phytopharmacological Studies on some Herbal Drugs of Ayurvedic Importance
40.	S.R. Swain	Pharmacy	Phytochemical and Pharmacological Studies on Rungia species- an important folklore of Orissa

Convocation, Results, Degrees / Diploma Awarded

Upon recommendation of the Board, the following scholars who have cleared the programme during 2008-09 were awarded Degree / Diploma in the convocation 2008-09 held on 30th March 2009.

Degrees / Diplomas Awarded

1. Doctor of Philosophy : 23

Sl. No.	Name	Discipline	Title of the Thesis
1.	Aruna Jain	Engineering	Traffic and Performance Analysis of a Web Proxy Server.
2.	Jaya Bharata Reddy	Engineering	Detection, Classification and Localization of Power System Transmission Line Faults using wavelet Neurofuzzy Combined Approach.
3.	Rejeev Kumar	Engineering	Investigations on the Mechano-emission Characteristics of Metallic Alloys.
4.	P.R. Thakura	Engineering	A Study on Dither Technique Based Direct Torque Control of Induction Motor Drive.
5.	Vijay Pande	Engineering	Development of Feature Recognition System: A Link between Design and Manufacture.
6.	Sharad Chandra Srivastava	Engineering	Intelligent Controllers for Flexible Manufacturing Environment.
7.	R.K. Mishra	Engineering	Analysis of Mechanical Behaviour of Composites Using Multi – quadric Radial Basis Function.
8.	Nazir Hussain	Engineering	Effect of Low Temperature on Mechanical Behaviour Of Glass Fibre Composites.
9.	Shree Prakash Lal	Engineering	Sustainable Manufacturing for Improving Productivity.
10.	Nehi Sinha	Technology	Restoration by Postacycline of Impaired insulin Induced interferon-Production in Human Neutrophils in Human Breast Cancer.

11.	Rajkumar Gothwal	Technology	Rhizosphere Microbial Community Analysis of Soils from Hot Arid Regions of Rajasthan.
12.	Mrinal Mishra	Technology	'Application of Monte Carlo Integration Technique in Method of Moments Solution of some Electromagnetic Radiation and Scattering Problems.
13.	Soumendu Jana	Science	Light Matter interactions in Media Processing Higher Order Nonlinearity
14.	Vijayalakshmi Dayal	Science	Transport and Magnetic Properties of BSCCO-2223 Superconductors and LCMO Manganites.
15.	Rashmi Mishra	Science	Microbiological Investigation on Recovery of Zinc from Low Grade Ores and other Waste Materials.
16.	Lakshmikanta	Science	Synthesis of some Dye Based Polymers
17.	Kingshuk Bose	Science	Testing & Measurement of Physical Parameters Using Holographic Interferometry.
18.	Rashmi Kulshrestha	Pharmacy	Chromatographic Methods for Detection and Control Of Aflatoxin in Selected Medicinal Herbs.
19.	S. Vadivalan	Pharmacy	Pharmacophore Modeling and Docking Studies of GSK-3 β CDK-2 inhibitors.
20.	Arun Kumar Mishra	Pharmacy	Interactions of Cow's Ghee with some Drugs and its Significance.
21.	S.M. Verma	Pharmacy	Studies on Some Azabicyclononane Analogs.
22.	Manju Mishra	Pharmacy	Thermodynamic Approach to Drug Excipient Interactions.
23.	Ritanjali Majhi	Management	Application of Soft and Evolutionary Computing Techniques for Market Forecasting.

Other Degrees / Diplomas Awarded

		Branch				Total
2.	Post – Graduate Degrees		ID	I	II	Total
	Executive Master of Business Administration		11	10	7	28
	Master of Business Administration		118	194	22	334
	Master of Computer Applications		0	249	118	367
	Master of Engineering	Automated Manufacturing System	0	1	0	1
		Computer Aided Analysis & Design	3	0	0	3
		Civil	6	2	0	8
		Electrical	8	5	0	13
		Electronics & Communication	19	10	0	29
		Mechanical	9	4	0	13
		Polymer	5	0	0	5

		Quality Engineering Management	4	0	0	4
		Software	6	3	1	10
		Space Engineering & Rocketry	5	1	1	7
	Master of Urban Planning		5	4	0	9
	Master of Pharmacy		18	19	0	37
	Master of Science	Biomedical Instrumentation	6	16	4	26
		Bioinformatics	21	39	2	62
		Geoinformatics	19	10	1	30
		Information Science	6	9	2	17
		Information Technology	28	9	1	38
	Master of Technology	Computer Science	14	12	0	26
		Environmental Science & Engineering	7	1	0	8
		Fuels & Combustion	1	2	0	3
		New Material & Processing Technology	8	0	0	8
		Remote Sensing	7	6	1	14
		Scientific Computing	2	0	0	2
	Post – Graduate Diploma	Biomedical Instrumentation	0	0	1	1
		Business Administration	0	0	1	1
			Total			1127
3.	Under-Graduate Degrees		ID	I	II	Total
	Bachelor of Architecture		10	9	0	19
	Bachelor of Business Administration		273	220	0	493
	Bachelor of Computer Applications		238	206	0	444
	Bachelor of Engineering	Biotechnology	23	22	0	45
		Civil	15	19	0	34
		Computer Science	49	77	0	126
		Electrical & Electronics	15	37	0	52
		Electronics & Communication	95	72	0	167
		Information Technology	10	39	0	49
		Marine	58	42	0	100
		Mechanical	34	48	0	82
		Polymer	5	16	0	21
		Production	6	12	0	18
	Bachelor of Hotel Management & Catering Technology		12	10	0	22

	Bachelor of Pharmacy		21	22	0	43
	Bachelor of Science	Animation & Multimedia	81	46	0	127
		Nautical Science	64	1	0	64
		Information Technology	49	5	0	54
		Medical Lab Technology	10	10	0	20
	Bachelor of Technology	Civil	6	6	0	12
		Electrical & Electronics	4	5	0	9
		Mechanical	6	5	0	11
	Bachelor of Commerce		10	4	0	14
	Bachelor of Business Management		2	0	0	2
			Total			2029
4.	Diploma in Technology	Automobile Engineering	10	15	0	25
		Computer Science	10	9	0	19
		Electrical Engineering	8	5	0	13
		Electronics Engineering	9	16	0	25
		Manufacturing Engineering	8	8	0	16
		Mechanical Engineering	10	2	0	12
		Metallurgical Engineering	23	1	0	24
			Total			134
			Grand Total			3290

Faculty Strength (including International centers)

Summary of the faculty Strength

Sl. No.	Category	At Present
1.	Professor	62
2.	Associate Professor	29
3.	Reader	63
4.	Lecturer (Selection Grade)	12
5.	Senior Lecturer	111
6.	Lecturer	258
7.	Associate Lecturer	97
8.	Scientific Officer	11
9.	Res. Assoc. Cum Tutor	16
10.	Others	24
	Total	683

Department / Centre wise details of faculty position**Department of Architecture**

Sl. No.	Name of the faculty	Designation
1.	Dr. Ajay Khare	Professor (Incharge)
2.	Dr. (Mrs.) Manjari Chakraborty	Sr. Architect
3.	Mr. Nikhil Ranjan Mandal	Reader
4.	Dr. Debajyoti Biswas *	Reader
5.	Mrs. Rachna Khare	Lecturer (Selection Grade)
6.	Dr. Satyaki Sarkar	Senior Lecturer
7.	Mr. Gaurav Singh *	Senior Lecturer
8.	Mrs. Smriti Mishra *	Senior Lecturer
9.	Mrs. Harshit S. Lakra	Senior Lecturer
10.	Mrs. Ritu Agrawal *	Senior Lecturer
11.	Mr. Sanmarga Mitra *	Senior Lecturer
12.	Mr. Shashi Kant Pandey	Lecturer
13.	Mr. Bimal Chandra Roy	Lecturer
14.	Mr. Anuj Kumar Toppo	Lecturer
15.	Mr. Anidita Banerjee	Lecturer
16.	Mr. Shankha Pratim Bhattacharya	Lecturer
17.	Mr. Nayana Rastogi Singh	Lecturer
18.	Mrs. Parama Mitra *	Lecturer
19.	Mrs. Nayana Rastogi Singh *	Lecturer
20.	Mr. Rajan Chandra Sinha	Associate Lecturer
21.	Mrs. Sangita	Associate Lecturer

Department of Applied Chemistry

Sl. No.	Name of the faculty	Designation
1.	Dr. (Mrs) Usha Jha	Professor & Head
2.	Dr. J.P. Pandey	Reader
3.	Dr. R.K. Dey	Reader
4.	Dr. Bimal Verma	Reader
5.	Dr. Ashoke Sharon	Senior Lecturer
6.	Dr. Sagar Pal	Lecturer
7.	Dr. (Mrs.) Chandralata Bal	Lecturer
8.	Dr. (Mrs.) Deep Shikha	Lecturer

9.	Dr. Subhendu Naskar	Lecturer
10.	Mr. Gyan Kumar Agrawal	Associate Lecturer
11.	Mr. Ashish Chandra Singh	Associate Lecturer
12.	Mr. Gautam Singh	Associate Lecturer
13.	Dr. (Mrs.) Tanushree Patnaik	SRA
14.	Sri G.S. Tiwari	SRA
15.	Mr. Satish Kumar	Research Associate

Department of Applied Mathematics

Sl. No.	Name of the faculty	Designation
1.	Dr. N.C. Mahanti	Professor & Head
2.	Dr. Swapan Kumar Chakraborty	Reader
3.	Dr. Bimal Kumar Mishra	Reader
4.	Dr. Seshadev Padhi	Reader
5.	Dr. Soubhik Chakraborty	Reader
6.	Dr. S.S. Roy	Reader
7.	Dr. Anurag Jayswal	Senior Lecturer
8.	Dr. Manish Trivedi	Senior Lecturer
9.	Dr. Trishna Paul	Senior Lecturer
10.	Dr. (Mrs) Anjana Pradhan Ghorai	Senior Lecturer
11.	Dr. Prabal Dutta *	Lecturer
12.	Dr. Shanta Kumari Sunanda	Lecturer
13.	Mrs. Swati Pandey	Associate Lecturer
14.	Ms. Prabjot Kaur	Associate Lecturer
15.	Sri Kedar Nath Das *	Associate Lecturer

Department of Applied Mechanics

Sl. No.	Name of the faculty	Designation
1.	Prof. Ashok Kumar Ray	Professor & Head
2.	Dr. Ram Pal Singh	Professor
3.	Mr. U.S. Prasad	Lecturer (Selection Grade)
4.	Mr. Sankha Bhaduri	Lecturer
5.	Ms. Kona Mrunalini	Lecturer
6.	Sri Anukuran Saha	Lecturer

Department of Applied Physics

Sl. No.	Name of the faculty	Designation
1.	Dr. P. K. Barhai	Vice Chancellor and Professor & Head
2.	Dr. D. Jairath	Professor
3.	Dr. Swapan Konar	Professor
4.	Dr. Sarang Medhekar	Associate Professor
5.	Dr. Sanjay Kumar Sinha	Reader
6.	Dr. (Mrs) Sunita Keshri (Shaw)	Reader
7.	Dr. Ullas Gurudas	Reader
8.	Dr. R.K. Paul	Lecturer (SG)
9.	Dr. Rajeev Kumar	Senior Lecturer
10.	Dr. (Mrs) Indrani Banerjee	Senior Lecturer
11.	Dr. Sanjeeb Kumar Rout	Senior Lecturer
12.	Dr. Santosh Kumar Mahapatra	Senior Lecturer
13.	Dr. Samrat Mukherjee	Lecturer
14.	Dr. Kingshuk Bose	Lecturer
15.	Dr. Gajendra Prasad Singh	Lecturer

Department of Biotechnology

Sl. No.	Name of the faculty	Designation
1.	Dr. A.S. Vidyarthi	Professor (Incharge)
2.	Dr. (Mrs.) Padmini Padmanabhan *	Professor
3.	Dr. Kunal Mukhopadhyay	Professor
4.	Dr. Ramesh Chandra	Reader
5.	Dr. Pratyosh Shukla	Reader
6.	Dr. Dev Mani Pandey	Reader
7.	Dr. Rajib Bandopadhyay	Senior Lecturer
8.	Dr. Manish Kumar	Senior Lecturer
9.	Dr. Kanchan Phadwal *	Lecturer
10.	Mr. Raju Poddar *	Lecturer
11.	Dr. Avneesh Pareek	Lecturer
12.	Mr. Santosh Kumar Jha	Lecturer
13.	Dr. Ashish Sachan	Lecturer
14.	Dr. (Mrs.) Shashwati Ghosh	Lecturer
15.	Dr. (Mrs.) Sheela Chandra	Lecturer

16.	Dr. Manoj Kumar Singh	Lecturer
17.	Dr. Madan Mohan Sharma	Lecturer
18.	Sri Aniket Paliwal	Lecturer
19.	Dr. Hareram Singh	Associate Lecturer
20.	Mrs. Sneha Singh	Associate Lecturer
21.	Mr. Harmeet Singh *	Associate Lecturer
22.	Mrs. Supreet Kaur *	Associate Lecturer

Bio-Medical Instrumentation Group

Sl. No.	Name of the faculty	Designation
1.	Dr. B. N. Das	Incharge
2.	Dr. Rakesh Kumar Sinha *	Reader
3.	Mr. Surendra Kumar	Senior Lecturer
4.	Mr. Yogender Aggarwal	Associate Lecturer
5.	Ms. Anjana Dwivedi	Associate Lecturer
6.	Mr. Supriyo Kumar Das	Associate Lecturer

Department of Civil Engineering

Sl. No.	Name of the faculty	Designation
1.	Dr. K. V. Krishnamurthy	Professor & Head
2.	Prof. S. Sengupta	Professor / Advisor
3.	Dr. Balram Singh	Professor
4.	Dr. Anand Kumar Sinha	Professor
5.	Prof. K.R. Roychaudhary	Professor
6.	Dr. Indrajit Roy	Reader
7.	Dr. Rajeev R Sahay	Reader
8.	Dr. Sudeshna Chakravarty	Reader
9.	Dr. Arun Kumar	Reader
10.	Mrs. Bindhu Lal	Lecturer (Selection Grade)
11.	Mr. Birendra Kumar Singh	Senior Lecturer
12.	Dr. Siddhartha Sengupta	Senior Lecturer
13.	Mr. Umesh Chandra Sahoo	Senior Lecturer
14.	Mr. Avijit Burman	Lecturer
15.	Mr. Kaushik Paul	Lecturer
16.	Mr. Jitu Kujur *	Lecturer

Department of Computer Science & Engineering

Sl. No.	Name of the faculty	Designation
1.	Dr. Sukesh Kumar	Professor & Head
2.	Dr. Krishna G. Pande	Professor
3.	Mr. Kishore Kumar Senapati	Senior Lecturer
4.	Mrs. Itu Snigdh	Senior Lecturer
5.	Mr. Dheeresh Kumar Mallick	Senior Lecturer
6.	Mr. Abhijit Mustafi	Senior Lecturer
7.	Mr. Sujit Kumar Chatterjee	Senior Lecturer
8.	Mr. Indrajit Mukherjee	Senior Lecturer
9.	Mr. Partha Paul	Senior Lecturer
10.	Ms. Shruti Garg	Senior Lecturer
11.	Mr. Satish Chandra Panigrahi	Senior Lecturer
12.	Ms. Sanchita Paul	Lecturer
13.	Mr. Sudip Kumar Sahana	Lecturer
14.	Mr. Shashank Pushkar	Lecturer
15.	Mrs. Amritanjali	Lecturer
16.	Ms. Rashmi Sahay	Lecturer
17.	Mr. K.Sridhar Patnaik	Lecturer
18.	Mr. Abul Aula Jasser	Associate Lecturer
19.	Ms. Sweta Shree	Teaching Assistant

Department of Electronics & Communication Engineering

Sl. No.	Name of the faculty	Designation
1.	Dr. (Mrs.) Nisha Gupta	Professor & Head
2.	Dr. Swapan Kumar Ghorai	Professor
3.	Dr. Srikanata Pal	Associate Professor
4.	Prof. Madhukar Puri	Associate Professor
5.	Prof. K.K.Masand	Associate Professor
6.	Dr. Mahesh Chandra	Reader
7.	Mr. B.B. Pal	Reader
8.	Mr. Narsingh Poddar	Reader
9.	Dr. (Mrs.) Vibha Rani Gupta	Reader
10.	Mr. Avireni Srinivasulu	Lecturer (Selection Grade)
11.	Mr. Sandeep Singh Solanki	Lecturer (Selection Grade)

12.	Dr. Sanjay Kumar	Lecturer (Selection Grade)
13.	Dr. (Mrs.) Shweta Srivastava	Senior Lecturer
14.	Dr. (Mrs.) Neela Chatoraj	Senior Lecturer
15.	Dr. Rajesh Kumar Lal	Senior Lecturer
16.	Mr. Sukanta Kumar Dash	Senior Lecturer
17.	Mr. Vishal H. Shah	Senior Lecturer
18.	Mr. Kartik Mahto	Senior Lecturer
19.	Mr. Janardan Sahay	Senior Lecturer
20.	Mr. Sanjeet Kumar	Senior Lecturer
21.	Mr. Manoj Kumar Mukul *	Lecturer
22.	Mr. Bharat Gupta *	Lecturer
23.	Mr. Vinay Kumar Singh *	Lecturer
24.	Mr. Prabhat Kumar Upadhyay *	Lecturer
25.	Mr. Sanjaya Shankar Tripathy	Lecturer
26.	Mr. Dileep Kumar Upadhyay	Lecturer
27.	Mr. Vijay Nath	Lecturer
28.	Dr. Mrinal Mishra	Lecturer
29.	Mrs. Swati Prasad	Lecturer
30.	Mrs. Annapurna S.M.	Lecturer
31.	Mr. Aminul Islam	Lecturer
32.	Mr. Somnath Sengupta	Lecturer
33.	Mr. Priyank Saxena	Lecturer
34.	Mr. Gajendra Kr. Mishra	Lecturer
35.	Mr. Anjini Kumar Tiwary	Associate Lecturer
36.	Mr. Rupesh Kumar Sinha	Associate Lecturer
37.	Mr. Santashraya Prasad	Associate Lecturer
38.	Mrs. Soumya Sidhishwari	Associate Lecturer
39.	Ms. Saba Firdous	Associate Lecturer
40.	Maj (Ms) Debasmita Sahu (Retd.)	Associate Lecturer

Department of Electrical & Electronics Engineering

Sl. No.	Name of the faculty	Designation
1.	Dr. B.M. Karan	Professor & Head
2.	Dr. R. C. Prasad	Professor
3.	Prof. R.K.Narayan	Professor

4.	Prof. Dinesh Bhagat	Professor
5.	Dr. B.N.Das	Professor
6.	Dr. Tirthadip Ghose	Associate Professor
7.	Dr. Rakesh Chandra Jha	Associate Professor
8.	Dr. Dusmanta Kumar Mohanta	Associate Professor
9.	Dr. (Mrs.) N.L. Nath *	Associate Professor
10.	Dr. Parashuram Thakur	Reader
11.	Mr. Kadwane S. Gopal Rao	Lecturer (Selection Grade)
12.	Mr. Prem Prakash	Senior Lecturer
13.	Mrs. Vijaya Laxmi	Senior Lecturer
14.	Mrs. Sarbani Ray (Chakraborty)	Senior Lecturer
15.	Mr. Subhojit Ghosh	Senior Lecturer
16.	Mr. Kartick Chandra Jana	Senior Lecturer
17.	Mr. Abinash Prasad	Lecturer
18.	Mr. Ritesh Kumar Keshri	Lecturer
19.	Mr. Gauri Shankar Gupta	Lecturer
20.	Mrs. Alivarani Mohapatra	Lecturer
21.	Mrs. Debomita Ghosh	Lecturer
22.	Mr. Brij Mohan Prasad	Associate Lecturer
23.	Ms. Sushma Suryaprakash Kamlu	Associate Lecturer

Department of Hotel Management & Catering Technology

Sl. No.	Name of the faculty	Designation
1.	Prof. Sitesh P. Srivastav	Professor & Head
2.	Mrs. Sonia Atul Gupta	Senior Lecturer
3.	Mr. Sanjay Kumar	Senior Lecturer
4.	Mr. Ashish Dahiya *	Lecturer
5.	Mr. Praveen Srivastava	Lecturer
6.	Mr. Abhinav Kumar Sandilya	Lecturer
7.	Mr. Abhisek Jana	Lecturer
8.	Mr. Sanjiv Kumar Srivastava	Lecturer
9.	Mr. Nishikant Kumar	Lecturer
10.	Mr. Rajeshwari Chatterjee	Lecturer
11.	Mrs. Snigdha Priya	Lecturer
12.	Mrs. Pratima Ekka	Associate Lecturer

13.	Mr. Amit Saran	Associate Lecturer
14.	Mr. Gautam Sandilya	Associate Lecturer

Department of Information Science

Sl. No.	Name of the faculty	Designation
1.	Dr. Bhaskar Karn	Reader
2.	Mr. Arindam Dutta*	Assoc. Lecturer

Department of IT & MCA

Sl. No.	Name of the faculty	Designation
1.	Dr. Gadadhar Sahoo	Professor & Head
2.	Mr. Sandip Dutta	Reader
3.	Mr. Saumya Banerjee	Reader
4.	Dr. Aruna Jain	Reader
5.	Mr. V.S. Shankar Sriram	Senior Lecturer
6.	Mr. Indra Deo Ram *	Senior Lecturer
7.	Mr. Bikash Kanti Sarkar	Senior Lecturer
8.	Mr. Ritesh Jha	Lecturer
9.	Mr. Anup Kumar Keshri	Senior Lecturer
10.	Mr. B. K. Chanda	Lecturer
11.	Mr. Abhishek Srivastava	Lecturer
12.	Mr. Saunak Paul	Lecturer
13.	Mr. V.K. Jha	Lecturer

Department of Management

Sl. No.	Name of the faculty	Designation
1.	Dr. Swapan Kumar Bose	Professor & Head
2.	Dr. Utpal Baul	Professor
3.	Dr. (Mrs.) Manju Bhagat	Associate Professor
4.	Dr. (Mrs.) Shradha Shivani	Associate Professor
5.	Prof. S.C. Mishra	Associate Professor
6.	Dr. Ravindra Nath Bhagat	Associate Professor
7.	Prof. K.P.Srivastava	Senior Faculty
8.	Dr. K. Durga Prasad	Senior Lecturer
9.	Mr. Vijay Agrawal	Senior Lecturer
10.	Dr. (Mrs.) Tanushree Dutta	Lecturer

11.	Dr. Rohit Kumar Pandey	Lecturer
12.	Mrs. Shelly Srivastava	Lecturer
13.	Mrs. Rohini Jha	Lecturer
14.	Mr. Anand Kumar	Lecturer
15.	Dr. Praveen Chandra Jha	Lecturer
16.	Mr. Amitabh Verma	Lecturer
17.	Mrs. Manisha Kumari	Associate Lecturer
18.	Mrs. Sujata Priyambada Dash	Associate Lecturer
19.	Mr. Anand Prasad Sinha	Associate Lecturer

Department of Mechanical Engineering

Sl. No.	Name of the faculty	Designation
1.	Dr. Ashok Mishra	Professor & Head
2.	Dr. Kaushal Kishore Srivastav	Professor
3.	Dr. Krishna G. Pande	Professor
4.	Dr. Arvind Kumar	Professor
5.	Dr. Arbind Kumar	Reader
6.	Dr. Rabindra Prasad Sharma	Reader
7.	Dr. Rajeev Kumar	Reader
8.	Mr. P.K. Chaudhary	Reader
9.	Mr. Shambhu Kumar Sinha	Reader
10.	Mr. Lata Devdas Bhikhulal	Lecturer (Selection Grade)
11.	Mr. Jeeoot Singh	Senior Lecturer
12.	Sri Sandip Kumar	Senior Lecturer
13.	Mr. Vishal Singh Chauhan	Senior Lecturer
14.	Mr. Sushil Kumar Dhiman	Senior Lecturer
15.	Mrs. Richa Pandey	Senior Lecturer
16.	Mr. Girish Pathak	Senior Lecturer
17.	Mr. Praveen Mishra	Senior Lecturer
18.	Mr. Sujeet Kumar Mishra	Lecturer
19.	Mr. Arun Dayal Udai	Lecturer
20.	Mr. Sabin Mishra *	Lecturer
21.	Mr. B.S. Choudhary	Lecturer
22.	Mr. Om Prakash Pandey	Lecturer

23.	Mr. B.K. Prabhakar	Lecturer
24.	Mr. Ranjeet Ranjan	Lecturer

Department of Pharmaceutical Sciences

Sl. No.	Name of the faculty	Designation
1.	Dr. Dinakar Sasmal	Professor & Head
2.	Prof. S.P. Bhatnagar	Professor / Advisor
3.	Dr. P. R. P. Verma	Professor
4.	Dr. B.N.Sinha	Professor
5.	Dr. Chandra Mohan Prasad	Professor
6.	Dr. S. Jha	Associate Professor
7.	Prof. Shaila G. Panpalia	Associate Professor
8.	Dr. Subir Samanta	Associate Professor
9.	Dr. R.N.Gupta	Reader
10.	Dr. K. Jayaram Kumar	Reader
11.	Dr. (Mrs.) Papiya Mitra Mazumdar	Reader
12.	Dr. Swastika Ganguly	Reader
13.	Dr. (Mrs.) Saurabh Manaswita Verma	Reader
14.	Mr. Venkatesan J.	Senior Lecturer
15.	Sri Dinesh Motilal Biyani	Senior Lecturer
16.	Mr. Ashok Kumar Pattnaik	Senior Lecturer
17.	Mr. Manik	Lecturer
18.	Mr. Arijit Basu	Lecturer
19.	Mr. Abhimanyu Dev	Lecturer
20.	Mr. Shakti Prasad Pattanayak	Lecturer
21.	Mr. Biswatrish Sarkar	Lecturer
22.	Ms. Trishna Bal	Lecturer
23.	Ms. Nibha Mishra	Lecturer
24.	Mrs. Anima Pandey	Lecturer

Department of Polymer Engineering

Sl. No.	Name of the faculty	Designation
1.	Dr. (Mrs.) Mandira Mukherjee	Professor & Head
2.	Dr. (Mrs.) Sudipta Goswami	Reader
3.	Dr. Gautam Sarkhel	Reader
4.	Dr. Akhil Kumar Sen	Reader

5.	Dr. Salil Kumar Ghosh	Reader
6.	Dr. Chandan Datta	Senior Lecturer
7.	Dr. Amar Nath Mishra	Lecturer
8.	Dr. Arup Choudhary	Lecturer
9.	Mr. Sumit Kumar Jana	Lecturer
10.	Sri Susanta Sinha Mahapatra	Lecturer
11.	Sri Sudeepan J.	Lecturer

Department of Production Engineering

Sl. No.	Name of the faculty	Designation
1.	Dr. Surender Kumar	Professor & Head
2.	Dr. Bijay Kumar Singh	Associate Professor
3.	Dr. Vinay Sharma	Associate Professor
4.	Prof. Atul Anand	Associate Professor
5.	Prof. Ashok Kumar Thakur	Associate Professor
6.	Dr. Alok Verma	Reader
7.	Dr. Sanjay Kumar Jha	Reader
8.	Dr. Ritesh Kumar Singh	Reader
9.	Dr. Laxmi Narayan Pattanaik	Reader
10.	Dr. Vijay Pandey	Reader
11.	Dr. Sharad Chandra Srivastava	Reader
12.	Mr. Rajeev Agrawal	Senior Lecturer
13.	Mr. Joyjeet Ghose	Senior Lecturer
14.	Mr. Binay Kumar	Lecturer

Department of Remote Sensing

Sl. No.	Name of the faculty	Designation
1.	Dr. M.S. Nathawat	Professor & Head
2.	Dr. Nilanchal Patel	Professor
3.	Dr. Akhouri Pramod Krishna	Associate Professor
4.	Dr. R. Sivakumar	Reader
5.	Dr. Arvind Chandra Pandey	Reader
6.	Mr. Roheet Bhatnagar *	Lecturer
7.	Mrs. Richa N.K. Sharma	Lecturer

8.	Mr. Subash Chelliah	Lecturer
9.	Dr. Virendra Singh Rathore	Lecturer

Department of Space Engineering and Rocketry

Sl. No.	Name of the faculty	Designation
1.	Dr. A.K.Chatterjee	Professor & Head
2.	Dr. Mohan Varma	Professor
3.	Dr. P.C.Joshi	Professor
4.	Dr. J.K. Prasad	Professor
5.	Mr. Sudip Das	Senior Lecturer
6.	Mr. Priyank Kumar	Lecturer
7.	Dr. Pramod Kumar Dash *	Lecturer

Department of Physical Education & Sports

Sl. No.	Name of the faculty	Designation
1.	Dr. Rama Shankar Singh	Sr. Sports Officer
2.	Mr. Mahendra Kumar	Sr. Lecturer

Environment Science and Engineering Group

Sl. No.	Name of the faculty	Designation
1.	Dr. Gopal Pathak	Professor & Incharge
2.	Mr. Kirti Avishek	Lecturer
3.	Mr. Amit Kumar Gorai	Lecturer
4.	Mr. Jawed Iqbal	Associate Lecturer
5.	Ms. Neeta Kumari	Associate Lecturer

Central CAD Laboratory

Sl. No.	Name of the faculty	Designation
1.	Mr. N. K. Nag	Principal System Analyst
2.	Mr. Pramod Kumar	Jr. System Administrator

B.I.T.Extension Centre: Allahabad

Sl. No.	Name of the faculty	Designation
1.	Prof. B.N. Jha	Director
2.	Mr. S. Kanungo	Sr. Lecturer
3.	Mr. R.S. Pandey	Sr. Lecturer
4.	Dr. B.K. Singh	Sr. Lecturer

5.	Mrr. Anita Kushwaha	Sr. Lecturer
6.	Mr. Ajit Kumar Keshri	Lecturer
7.	Mr. Santanu Das	Lecturer
8.	Dr. Adhip Kr. Mahanty	Lecturer
9.	Mr. Shambhu Sharan Kumar	Lecturer
10.	Mr. Dhaneshwar Mahto	Lecturer
11.	Mr. Sunil Kumar Pandey	Lecturer
12.	Mrs. Sweta	Assoc. Lecturer
13.	Mr. Pradeep Munda	Assoc. Lecturer
14.	Mr. P. C. Srivastava	Assoc. Lecturer
15.	Mr. B.N. Singh	Assoc. Lecturer
16.	Mr. Kumar Nikhil	Assoc. Lecturer
17.	Mr. Ratnesh Mishra	Assoc. Lecturer
18.	Mrs. Nidhi Tiwari	Assoc. Lecturer

B.I.T. Extension Centre: Deoghar

Sl. No.	Name of the faculty	Designation
1.	Dr. P.K. Srivastava	Professor & In-Charge
2.	Mr. Praveen James Sanga	Lecturer
3.	Mr. Ranjan Chattaraj	Assoc. Lecturer
4.	Mr. Amit Kumar	Assoc. Lecturer
5.	Mr. Prafulla Kumar Manoharan	Assoc. Lecturer
6.	Mr. Swapan Kumar Borat	Assoc. Lecturer
7.	Mr. Varun Kumar Singh	Jr. Scientific Officer
8.	Mr. Rana Jitendra Kumar Singh	Research Associate
9.	Mr. Mahendra Kumar Pandey	Tutor

B.I.T. Extension Centre: Jaipur

Sl. No.	Name of the faculty	Designation
1.	Dr. Abhinav Dinesh	Director
2.	Dr. S.K. Sharma	Professor
3.	Dr. M.P. Punia	Sr. Scientific Officer
4.	Mr. S.P. Sarkar	Sr. Scientific Officer
5.	Dr. K.R. Khicher	Sr. Scientific Officer
6.	Mr. P.N. Gupta	Reader
7.	Dr. (Mrs.) Roopali Sharma	Reader

8.	Dr. (Mrs.) Archana Srivastava	Reader
9.	Dr. (Mrs.) Madhvi Sinha	Reader
10.	Mr. G.P. Mishra	Lecturer Selection Grade
11.	Mr. S. Banerjee	Sr. Lecturer
12.	Mr. O.P. Rishi	Sr. Lecturer
13.	Mr. Jankiballabh Sharma	Sr. Lecturer
14.	Dr. Ram Prakash	Sr. Lecturer
15.	Mr. B. Pathak	Sr. Lecturer
16.	Mr. V. Pathak	Sr. Lecturer
17.	Mr. Shripal Vijayvargiya	Sr. Lecturer
18.	Dr. Anirudh Sahni	Sr. Scientific Officer
19.	Mr. B.K. Singh	Scientific Officer
20.	Mr. Vivek Gaur	System Analyst
21.	Mrs. Archana Bhatnagar	Lecturer
22.	Mr. Rajeev Ranjan	Lecturer
23.	Dr. Anuj Jhankal	Lecturer
24.	Mr. Subhash Gupta	Lecturer
25.	Mr. Gurminder Singh Malhotra	Lecturer
26.	Dr. Anuj Agarwal	Lecturer
27.	Mr. Indra Kumar Dadheech	Lecturer
28.	Dr. Vibhuti Pandya	Lecturer
29.	Ms. Aditi Sharma	Lecturer
30.	Mr. P.S. Rathore	Lecturer
31.	Mrs. Pankaj Sharma	Lecturer
32.	Mr. Niket Mehta	Lecturer
33.	Mrs. Kiran Patni	Lecturer
34.	Mrs. Seema Gaur	Lecturer
35.	Mrs. Anju Sharma	Lecturer
36.	Dr. Taruna	Lecturer
37.	Mr. Vivek Sharma	Lecturer
38.	Mr. A.D.M. Kushwaha	Lecturer
39.	Ms. Preeti Sharma	Lecturer
40.	Mrs. Ritu Arora	Lecturer
41.	Mrs. Shipra Bhutani	Lecturer
42.	Mr. Anil Kumar Sharma	Lecturer

43.	Dr. Avneesh Pareek	Lecturer
44.	Mrs. Neha Singh	Lecturer
45.	Mr. Gautam Kumar Goswami	Lecturer
46.	Mr. Joganand Goswami	Lecturer
47.	Mrs. Neerja Sharma	Scientific Officer
48.	Dr. Rajesh Kumar	Scientific Officer
49.	Mr. Alok Pandey	System Manager
50.	Mrs. Aparajita Pandey	System Analyst
51.	Ms. Shweta Mahalawat	Assoc. Lecturer
52.	Mr. Mecwan Steven Micheal	Assoc. Lecturer
53.	Mr. Santosh Kumar Agarwal	Assoc. Lecturer
54.	Ms. Nidhi Agarwal	Assoc. Lecturer
55.	Ms. Deepa Rohin	Assoc. Lecturer
56.	Mrs. Anindita Banerjee	Assoc. Lecturer
57.	Mrs. Sneha Shastri	Assoc. Lecturer
58.	Mrs. Rajni Agarwal	Jr. Scientific Officer
59.	Mr. Manish Soni	Jr. Scientific Officer
60.	Mr. Rakesh Vyas	Project Scientist

B.I.T. Extension Centre: Kolkata

Sl. No.	Name of the faculty	Designation
1.	Mr. Radha Tamal Goswami	Faculty In-Charge
2.	Mr. Subho Chaudhuri	Reader
3.	Dr. (Mrs.) Sraboni Mukhopadhyaya	Reader
4.	Mr. Tanmoy Kumar Banerjee	Lecturer
5.	Mr. Kuntal Mukherjee	Lecturer
6.	Mrs. Sanchita Ghosh	Lecturer
7.	Mr. Ambar Dutta	Lecturer
8.	Mrs. Sraboni Dutta	Lecturer
9.	Dr. Sandip Kumar Sengupta	Lecturer
10.	Mr. Somak Ray	Lecturer
11.	Mrs. Ajanta De Sarkar	Lecturer
12.	Ms. Siba Mitra	Lecturer
13.	Mr. Rohit Kamal Chatterjee	Assoc. Lecturer
14.	Mr. Soumendra Bhattacharyaa	Assoc. Lecturer

B.I.T. Extension Centre: Lalpur

Sl. No.	Name of the faculty	Designation
1.	Dr. A. N. Jha,	Assoc. Professor and In-Charge
2.	Dr. Mrs. Vandana Bhattacharjee	Assoc. Professor
3.	Mrs. Amrita Priyam	Sr. Lecturer
4.	Mrs. Onima Tigga	Sr. Lecturer
5.	Ms. Kumar Rajnish	Lecturer
6.	Mr. Amar Kumar	Lecturer
7.	Mr. Sanjay Kumar	Lecturer
8.	Mr. N.P.Tiwari	Lecturer
9.	Ms. Anupama Sahai	Lecturer
10.	Mr. A. K.Singh	Lecturer
11.	Mr. Somnath Mukherjee	Lecturer
12.	Ms. Jaya Pal	Lecturer
13.	Mr. S. N. Sahdeo	Lecturer
14.	Mr. Ashutosh Mishra	Lecturer
15.	Mr. S.A.Haider	Lecturer
16.	Mr. Amitabh Chandan	Lecturer
17.	Ms. Mili Dutta	Lecturer
18.	Ms. P.S.Bishnu	Lecturer
19.	Mr. Binod Kr. Sharma	Lecturer
20.	Mr. J. Bhagat	Assoc. Lecturer
21.	Mr. Soumitro Chakravarty	Assoc. Lecturer
22.	Mr. Satrajeet Choudhary	Assoc. Lecturer
23.	Mr. Avinash Sinha	Assoc. Lecturer
24.	Ms. Swati Priyadarshani	Assoc. Lecturer
25.	Mrs. Neerja Mishra	Assoc. Lecturer
26.	Mr. D.K.Mishra	Teaching Assistant
27.	Ms. Sayantoni Choudhury,	Teaching Assistant

B.I.T. Extension Centre: NOIDA

Sl. No.	Name of the faculty	Designation
1.	Prof. S.C. Goel	Director
2.	Prof. B.P.Joshi	Advisor (Planning & Development)
3.	Dr. C.P. Srivastava	Advisor (Education)
4.	Mr. V.P. Singh	Advisor (Corporate Relation)

5.	Dr. P.K. Pande	Director (Research & Development)
6.	Dr. B. K. Jha	Professor
7.	Dr. S.L. Gupta	Professor
8.	Dr (Mrs.) Asha Prasad	Reader
9.	Dr. Kanhaiya Singh	Reader
10.	Mrs. S. Mallika	Sr. Lecturer
11.	Mr. Pankaj Gupta	Sr. Lecturer
12.	Mr. Anil Kr.Singh	Sr. Lecturer
13.	Dr. Tarun Pandeya	Sr. Lecturer
14.	Ms. Vandana Sharma	Sr. Lecturer
15.	Mr. C. S. Suryanarayana	Lecturer
16.	Mrs. Mrinalini Mehta	Lecturer
17.	Mrs. Vibha Kaw	Lecturer
18.	Mrs. Soma Sircar	Lecturer
19.	Mr. S.P. Singh	Lecturer
20.	Dr. (Mrs.) Ila Sahay	Lecturer
21.	Mrs. Shruti Kohli	Lecturer
22.	Mr. Aruna Malik	Lecturer
23.	Mr. Rayees Ahamed	Lecturer
24.	Mrs. Sheetal Dhir	Lecturer
25.	Mrs. Pramila Joshi	Lecturer
26.	Mrs. Muntaha Ahamad	Lecturer
27.	Mr. Anurag Joshi	Lecturer
28.	Mrs. Smitha Jha	Lecturer
29.	Dr(Mrs.) Suparna Dutta	Lecturer
30.	Mrs. Meenakshi Sharma	Lecturer
31.	Mrs. Rachana Pratik	Lecturer
32.	Ms. Harpreet Charanjit	Lecturer
33.	Mrs. Ritu Jain	Lecturer
34.	Mrs. Preety Bajaj	Lecturer
35.	Mr. Arun Mittal	Lecturer
36.	Mr. K.B. Singh	Lecturer
37.	Mr. Rakesh Singh	Assoc. Lecturer
38.	Mrs. Lipika Jha	Assoc. Lecturer
39.	Mrs. S.Vijaylakshmi	Jr. Scientific Officer

B.I.T. Extension Centre: Patna

Sl. No.	Name of the faculty	Designation
1.	Prof. B.N.Giri	Director
2.	Prof. K.P. Singh	Visiting Professor
3.	Prof. D.P.Singh	Visiting Professor
4.	Prof. R.U. Sinha	Visiting Professor
5.	Mr. Niloy Bhattacharya	Principal System Analyst
6.	Mr. Surendra Mohan Sahay	Project Executive
7.	Mr. Satish Chandra Mishra	Manager (Technical Training)
8.	Dr. Pradeep Choudhary	Reader
9.	Dr. Chinmoy Kr. Panigrahi	Sr. Lecturer
10.	Mr. Kanhaya Lal	Sr. Lecturer
11.	Dr. S.K. Sinha	Sr. Lecturer
12.	Mr. Baboo Rai	Sr. Lecturer
13.	Mrs. Anubha Singh	Lecturer
14.	Mr. Sudipta Kishore Pradhan	Lecturer
15.	Dr. Kaushlendra Sharma	Lecturer
16.	Mr. Soumen Mandal	Lecturer
17.	Mr. Prashant Kumar	Lecturer
18.	Dr. Kamala Pati Tiwary	Lecturer
19.	Mr. Dileep Kr. Upadhyay	Lecturer
20.	Mr. Vijay Kr. Mandal	Assoc. Lecturer
21.	Mr. Madhup Kumar	Assoc. Lecturer
22.	Mr. Umesh Prasad	Assoc. Lecturer
23.	Mrs. Neelam Kumari	Assoc. Lecturer
24.	Mr. Rajnish Kumar	Assoc. Lecturer
25.	Mr. S.S. Yadav	Sports Instructor

B.I.T. International Centre: Bahrain

Sl. No.	Name of the faculty	Designation
1.	Prof. T.R. Ranganath	Provost
2.	Prof. Surya Lal Mishra	Professor
3.	Dr. S.K. Sharma	Visiting Professor
4.	Dr. N.K. Jain	Professor
5.	Mr. Prateek Sharma	Associate Professor
6.	Dr. R.K. Sharma	Associate Professor
7.	Dr. N. Saravanan	Associate Professor

8.	Dr. Asha Prasad	Associate Professor
9.	Dr. Sujeet K Sharma	Associate Professor
10.	Dr. K.R. Pillai	Senior Lecturer
11.	Dr. Rumpa Roy	Senior Lecturer
12.	Dr. Sabah Khan	Associate Professor
13.	Mr. Ruchin Jain	Senior Lecturer
14.	Mr. Vishal K Raghav	Senior Lecturer
15.	Mr. Sultan Khan	Lecturer
16.	Mrs. D. Shanthi	Associate Lecturer
17.	Mr. S.D. Sharma	Senior Mechanic
18.	Mr. Sushil Kumar	Associate Lecturer
19.	Mr. Aparajit Nandi	Senior Lecturer
20.	Mrs. Nuzhat K. Qurashi*	Associate Lecturer
21.	Mrs. Geeta Sapru	Associate Lecturer
22.	Mr. A. Rajendran	Associate Lecturer
23.	Mr. Adbul Redha Folath	Arabic Teacher
24.	Mr. A.M. Susai	Lecturer
25.	Mr. Arun Shankar M.S.	Lab Instructor
26.	Ms. Zahra Mahdi Mohammed Al Tublani	Computer Technician

B.I.T. International Centre: Muscat

Sl. No.	Name of the faculty	Designation
1.	Dr. A. M. Agrawal	Dean
2.	Dr. Padmini P	HoD – Biotech Dept
3.	Mr. Vikash Sharma	Lecturer (Sg)
4.	Mr. A. Prakash	Senior Lecturer
5.	Mr. Iftexhar Ahmad	Senior Lecturer
6.	Mr. Jyoti K Chandel	Senior Lecturer
7.	Mr. Mithun Srivastava	Senior Lecturer
8.	Mr. Sayeed Aulia	Senior Lecturer
9.	Mr. Pranav Naithani	Senior Lecturer
10.	Ms. P. Vijaya	Senior Lecturer
11.	Mr. Satish Chander	Senior Lecturer
12.	Mr. Sanjay Kumar	Senior Lecturer
13.	Mr. Shahid Ali	Senior Lecturer
14.	Mr. Santosh Kumar Ray	Senior Lecturer
15.	Mr. A.K. Choudhary	Senior Lecturer
16.	Mr. Kumar Rajnish	Senior Lecturer
17.	Mr. Akhilesh Roy	Senior Lecturer

18.	Mr. Mohd. Mohatram	Senior Lecturer
19.	Dr. Prabal Datta	Senior Lecturer
20.	Mr. Niraj Mishra	Lecturer
21.	Mr. Sushil Kumar	Lecturer
22.	Mrs. Soofi Asra Mobeen	Lecturer
23.	Dr. Sadaf Zahra	Lecturer
24.	Mrs. Atiya Tabassum	Lecturer
25.	Mr. Anil Kumar Sharma	Lecturer
26.	Ms. Shashi Dua	Lecturer
27.	Ms. Seema Varshney	Lecturer
28.	Ms. Srilekha Goveas	Lecturer
29.	Ms. Nupur Sen	Lecturer
30.	Ms. Blossom Christina	Lecturer
31.	Ms. Neelufer Aslam	Lecturer
32.	Ms. Sheeba Khan	Lecturer
33.	Ms. Sameena Begum	Lecturer
34.	Ms. Sinyamol	Lecturer
35.	Ms. Cimi Thomas	Lecturer
36.	Ms. Anu Manchanda	Lecturer
37.	Ms. Alycia Sebastian	Lecturer
38.	Ms. R.M. Vallikannu	Lecturer
39.	Ms. Smita Felix	Lecturer
40.	Ms. Sharmila Queenthly	Lecturer
41.	Ms. Indrani Basu	Lecturer
42.	Ms. Smita Prasad	Lecturer
43.	Mr. David Manohar	Lecturer
44.	Mr. El Amin El Nur	Lecturer
45.	Mr. Kenneth McGowan	Lecturer
46.	Ms. Anasuya Patil	Associate Lecturer
47.	Ms. Nejma Mohd	Associate Lecturer
48.	Ms. Nabila Al Ghenami	Assistant Lecturer
49.	Ms. Sara Al Haddabi	Assistant Lecturer

B.I.T. International Centre: Ras Al Khaimah (UAE)

Sl. No.	Name of the faculty	Designation
1.	Dr. Praveen Dhyani	Director
2.	Prof. Balram	Professor
3.	Mrs. Sreelatha	Associate Prof
4.	Dr. Debajyoti Biswas	Reader/Academic Coordinator
5.	Dr. Piyush Tewari	Senior Lecturer/In-Charge Examinations

6.	Mr.Avnish Vijay	Senior Lecturer
7.	Mr.Dileep Tanksali	Senior Lecturer
8.	Mr.Bharathan	Senior Lecturer
9.	Mr. Rejy Thariyan	Senior Lecturer
10.	Mr.Sanmarga Mitra	Senior Lecturer
11.	Mr.S.P.Bhattacharya	Senior Lecturer
12.	Mr.Gaurav Singh	Senior Lecturer
13.	Mr.Ranjeeth Ranjan	Senior Lecturer
14.	Mrs.Umalakshmi	Senior Lecturer
15.	Mrs.Indu Nair	Senior Lecturer
16.	Mr.Viswambar Pathak	Senior Lecturer
17.	Mr.Murugavel	Senior Lecturer
18.	Mrs.Padmashree	Senior Lecturer
19.	Dr. Nalini Raja	Senior Lecturer
20.	Ms.Neha Rohatgi	Lecturer
21.	Mr.Ravi Tandon	Lecturer
22.	Mr.Rajesh Veluthan	Lecturer
23.	Mr.Sunilkumar. C	Lecturer
24.	Mrs.Divya Sunny	Lecturer
25.	Ms.Shalini Bedi	Lecturer
26.	Mr.Prasanna Ganesh	Lecturer
27.	Mrs.Parama Mitra	Lecturer
28.	Mrs.Nayana Singh	Lecturer
29.	Mrs.Shimna Shafeek	Lecturer
30.	Mr.Prabhat Kumar Upadhyay	Lecturer
31.	Mr.Sunil Thomas	Lecturer
32.	Mrs.Thaseen Fatima	Lecturer
33.	Mrs.Sajeena Nizam	Lecturer
34.	Mrs.Vidya Ragesh	Lecturer
35.	Mrs.Shewta Virdhe	Lecturer
36.	Mrs.Gisha George	Lecturer
37.	Mrs.Sowmiya Seenath	Lecturer
38.	Mrs.Smita Devidas	Lecturer
39.	Mrs.Navdeep Kaur	Lecturer
40.	Mrs.Haleema	Lecturer
41.	Mrs.Mincy Oommen	Lecturer
42.	Mr.Ravikumar	Lecturer

B.I.T. International Centre : Mauritius

Sl. No.	Name of the faculty	Designation
1.	Dr. Munish	Professor/ Director
2.	Dr. Arbind Kumar	Reader
3.	Mr. Umair Ujala	Lecturer
4.	Mr. Vivek Gaur	Lecturer
5.	Mr. Nitesh Bhatia	A. Lecturer

University Polytechnic

Sl. No.	Name of the faculty	Designation
1.	Mr. Devendra Kumar Jain	Director
2.	Dr. G. G. Sarkar	Principal Sci. Officer
3.	Shri Ramkesh	Sr. Lecturer
4.	Dr. N. K. Singh	Lecturer
5.	Mrs. Meena Singh	Lecturer
6.	Mr. Pradeep Toppo	Lecturer
7.	Mr. Manish Oraon	Lecturer
8.	Dr. B. N. Sanyal	Lecturer
9.	Mr. Ramnish Sinha	Lecturer
10.	Mr. Satish Kumar	Lecturer
11.	Mr. Sunil Kumar Sahay	Lecturer
12.	Mr. Gholam Mursalin Ansari	Jr. System Analyst
13.	Mr. Nand Kishore Mukherjee	Associate Lecturer
14.	Mr. Rakesh	Associate Lecturer
15.	Mrs. Sumana Kumari	Associate Lecturer
16.	Mr. Abhay Kumar	Associate Lecturer
17.	Mrs. Neeru Singh	Associate Lecturer
18.	Mr. Trilok Kumar Parashar	Associate Lecturer
19.	Ms. Sandhya Kumari	Associate Lecturer
20.	Mr. Niraj Kumar	Associate Lecturer
21.	Mrs. Rekha Kumari	Associate Lecturer
22.	Mr. Rajendra Mahto	Jr. System Analyst
23.	Ms. Nirupam	Associate Lecturer
24.	Md. Maqbool Hosain	Associate Lecturer

* On lien, Study leave, deputation.

Department of Architecture



Architecture is primarily the art and science of designing spaces for serving the multifarious activities of human beings and for meeting their specific needs to create a meaningful Built Environment. Architecture calls for originality, creativity, conceptualization, perception, aesthetic values and a holistic judgment of people, places, objects and events.

The Department of Architecture was established in the year 1993. Till today 11(eleven) batches of students have been graduated and they are placed in reputed organisation in academics, planning, design and construction sector. Many of our students have opted for higher studies in India and abroad in the disciplines of Urban Design, City Planning, Landscape architecture, Conservation and Construction Management and other diversified fields such as Visual Design, Product Design, Fashion Design, Management and Software Development related to architecture.

The Department has attained a rare feat of being the first ever Department of Architecture in the country to be awarded research grants under the Department Research Support (DRS) level of the Special Assistance Programme (SAP) of University Grants Commission (UGC). It has also stood first in the country as an Architecture Department to publish an internationally refereed bi-annual research journal named ABACUS since August 2006. Six issues of the journal have been published focussing on various topics e.g. 'Architecture, Conservation and Urban Studies', 'Planning and Sustainability', 'Architecture for All', 'Architectural Education', 'Infrastructure Development Planning' and 'Conservation'.

Monsoon 2009 issue will be devoted on 'Architecture and Urban Design' and is being edited by Mr. Shashi Kant Pandey and Ar. Bimal Chandra Roy.

Considering the needs of urban development in the new state, the Department has started offering the Master in Urban Planning degree course from January 2007 with a maximum intake capacity of 12. The MUP batch is comprised of students from various backgrounds like architecture, civil engineering, geography, sociology and economics.

Programmes offered:

- 5-Year B. Arch degree course in Architecture
- 2-year M.U.P. degree course in Urban Planning
- Doctorate degree in Architecture

Ongoing Projects:

A. Departmental Consultancy Projects:

Sl. No.	Project	Client	Status
1.	Upgradation of Birsa Munda Airport, Ranchi	Airport Authority of India	On going
2.	Indoor Badminton Stadium at Ramgarh	Jharkhand Govt.	On going
3.	Interior Design of Conference Halls at Project Building, Ranchi	Jharkhand Govt.	On going

B. Research Projects

Sl. No.	Research Project Topic	P.I. / Co- P.I.	Funding Agency	Amount Sanctioned	Status
1.	Software based Acoustical Design and Evaluation for Auditorium Architecture	Dr. M.Chakraborty (Project Coordinator), Ar. B.C.Roy	Institute		On going
2.	Formulating a Planning Approach for some of the Newly Made District Head Quarters Encircling Ranchi, the Capital of Jharkhand state	Ar. N.R. Mandal, (Deputy Coordinator), Mr.S.K.Pandey, Ar. R.C.Sinha	DRS scheme of the Special Assistance Programme (SAP), UGC	Rs. 52.0 Lacs for 3 projects	On going
3.	Documentation of Heritage Sites in Jharkhand	Ar. N.R. Mandal, (Deputy Coordinator), Ar. Anuj Kumar Toppo			
4.	Prototype Designs for Rural Infrastructure Buildings.	Ar. N.R.Mandal, (Deputy Coordinator), Mr.S.K.Pandey, Ms. Sangeeta			
5.	Vibration Based Analysis for Health Monitoring of Multi-storey Structures due to Base Excitation.	Dr. S.Sarkar, Mr. S.P.Bhattacharya [Project Coordinator: Dr. S.K. Chakraborty]	Institute		On going
6.	Performance Measurement of NGO's and ULB's Initiatives in Urban Environmental Management: Case Study of Slums of Ranchi	Ar. Ritu Agrawal (Project Coordinator), Ar. Smriti Mishra	Institute		On going
7.	Collaborative Research Project on "Study of Energy Consumption Patterns in Different Building Typologies in India" [as part of an overall research on 'Energy Efficient Buildings'] supported by UTRC, USA	Ar. N.R. Mandal, (Co-Coordinator), Dr. D. J. Biswas, Dr. S. Sarkar, Ar. Ritu Agrawal Ar. Smriti Mishra, Ar. Gaurav Singh Mr. S. K. Pandey	WBCSD and United Technologies Research Center (UTRC), East Hartford, USA	US\$ 32,000	Completed in April 2008

Projects Completed during 2008-09:

1. Project entitled 'Study of Energy consumption trends, Demand and Supply trends in all building types in India', completed in April 2008, funded by UTRC, USA.

Seminar/Conferences/Short Term Courses conducted by the Department during 2008-09:

1. 'JHARCHEX-08' [Architects' Conclave and Exposition];
Co- conducted with Architects' Association, Jharkhand, Ranchi; 11th -13th April 2008.

Seminar/Conferences/Short Term Courses attended by the faculty during 2008-09:

Institute Workshop/Short Term Course

1. 'Effective Teaching Workshop' organized under Technical Education-Quality Improvement Program (TEQIP) program in BIT, Mesra, Ranchi in August-September 2008 attended by Ar. Rachna Khare, Ar. Bimal Chandra Roy, Ar. Anuj Kumar Toppo and Mr. S.K.Pandey .
2. 'EDUSAT- GIS Training Programme' at BIT Mesra, by: IIRS Dehradun for three months during Monsoon 08' Session attended by Ms. Sangeeta.

International Seminar/Conference

1. 'Designing Educational Spaces for Autism', on 16th January'2009, in Atlanta Autism Consortium, USA, attended by Ar. Rachna Khare.
2. 'Educational Spaces for Children with Autism; Design Development Process', published in CIB W 084 'Building comfortable and liveable environment for all' Meeting proceedings held at Georgia Tech on May 15th-16th, 2008, pp. 66-75 attended by Ar. Rachna Khare.
3. 'Building comfortable and liveable environment for all', International Council for Building Research and Innovation, Working Commission 084, organized by Centre for Assistive Technology and Environmental Access, USA and National Research Council Construction Technologies Institute, Italy held at Georgia Tech on May 15th-16th 2008 Atlanta, USA attended by Ar. Rachna Khare.
4. 'Fulbright Enrichment Seminar', sponsored by U.S. Department of State and Institute of International Education on April 10th - 13th, 2008 at Philadelphia, Pennsylvania, USA attended by Ar. Rachna Khare.
5. 'Public Policy and Sustainable Development', organized by Department of Economics, IGNOU New Delhi, from 26th - 28th March 2008 attended by Dr. Satyaki Sarkar.
6. 'International CPP Conference', organized by Indian Institute of Management, Bangalore, from 3rd – 7th August 2008 attended by Dr. Satyaki Sarkar.
7. 'XXXVI IAHS World Congress on Housing National Housing Programmes - New Visions', organized by Indian Institute of Technology, Kharagpur, India, held 3-5th November 2008 attended by Dr. Satyaki Sarkar.
8. 'Bridging Infrastructural Deficit through Public Private Partnership – Study of Jharkhand With Respect To Roads', co-author Tarang Sukhatme, International CPP Conference organized by Indian Institute of Management, Bangalore, from 3rd – 7th August 2008 by attended by Dr. Satyaki Sarkar, Tarang Sukhatme.
9. 'Effects of Globalization on Performance of Urban Sector – A Critical Appraisal of Everyday Urbanism in India', at XXXVI IAHS World Congress on Housing National Housing Programmes - New Visions – International Conference organized by Indian Institute of Technology, Kharagpur, India, held 3-5th November 2008 attended by Dr. Satyaki Sarkar.
10. 'Analysing Inter-Relationship of Housing Sector and Energy Consumption - Study of Indian Scenario', proceedings of XXXVI world Congress on Housing Science: National Housing Programmes - New Visions, 3 - 7 November, 2008, Kolkata; pp 42 [ISBN 81 - 902768 - 7 - 5] (also on CD format) attended by Dr. Satyaki Sarkar and Ar. N.R.Mandal.

National Seminar/Conference:

1. 'Current Trends in Architecture', presented in Indian Institute of Architects' Convention at Kolkata, 19–20th April 2008 by Dr. Manjari Chakraborty.

2. 'XXXVI world Congress on Housing Science: National Housing Programmes – New Visions', 3 - 7 November, 2008, Kolkata attended by Ar. N.R.Mandal.
3. 'Improving Basic Services in the Peri Urban Expanses of Ranchi', National Seminar of Indian Institute of Town Planners, India, at Kolkata, 20th – 22nd December 2008 attended by Dr. Satyaki Sarkar.

Publications:

International Journals:

1. Dr. Manjari Chakraborty 'On Searching a Convergent Theory of Architectural Education in India', ABACUS: An Internationally Refereed Bi-annual Journal on Architecture, Conservation and Urban Studies Vol. 3, issue 1, pp 44-50
2. Ar.N.R.Mandal, Dr. M.S.Nathawat, Dr. A. Khare : 'Community Participation in the Construction of New School Buildings under the District Primary Education Programme in India', ABACUS: An Internationally Refereed Bi-annual Journal on Architecture, Conservation and Urban Studies; Vol. 3 No.2; Monsoon 2008; pp. 63 – 68 [ISSN: 0973-8339]
3. Ar. R. Khare, Abir Mullick : 'Incorporating Dimension of Behaviour in Inclusive Learning Environment Design for autism', International Journal for Architectural Research (IJAR)
4. Ar. R. Khare, Abir Mullick: A Research Study: 'Designing Educational Spaces for Children with Autism', Design for All, March 2008, Vol.3, No.3, pp. 95-100.
5. Dr. S.Sarkar : 'Interdependence between Urbanisation and Basic Infrastructural Services: case study of Jharkhand and some selected developed states of India', Spatio-Economic Development Record, Volume 15, No. 5 September – October 2008, pages 15 – 24.
6. Dr. S.Sarkar, Ar.T.Sukhatme : 'Financial Tool for Public Private Partnership – Applicability for Road Infrastructure of Jharkhand', ABACUS [ISSN – 0973-8339 ABACUS], Vol. 3, No. 2, Monsoon 2008 Issue, pages 48-54.
7. Dr. S.Sarkar, Ms. Sangita: 'Technique for Identifying Land Suitability for Urban Development in Stretches around the Proposed Ring Road in Ranchi', Spatio-Economic Development Record, Volume 16, No. 2, March – April 2009, Pages 16 – 22.

National Journals:

1. Dr. M.Chakraborty 'Womanly Architecture: An Enriching Enigma', in Jharchex '08, the First Grand Conclave of Jharkhand Architects, 11th- 13th April 2008, pp 37-42.
2. Ar. R. Khare: 'Educational Space Design; from Segregation to Inclusion', Journal of Indian Institute of Architects (JIIA), India.
3. Dr. S.Sarkar: 'Low Energy High-rise Building Design – the Changing Concept', Journal of Indian Buildings Congress, Volume Fifteen, Number One, 2008, Pages 32-35.

Award / Honours Bestowed:

Members of Faculty :

1. Ar. Rachna Khare received IMFAR-2009, Professionals from Developing Country Award, Chicago, USA.
2. Ar. Harshit Lakra received the Ford Foundation Award [2007 – 09]

Students:

1. Ms. Neelakshi Joshi a student of 7th Semester won the jury commendation award in the annual Green Design Competition 2008-09 organised by Indian Green Building Council (IGBC) and Ethos. Design theme was 'Habitat out of waste material'
2. A team comprising Mr. Shashwat, Mr. Anupam Deb (all 5th semester students) and Mr. C. Thyagrajan (9th semester student) won the 4th position in the annual students' design competition 2008-09 organised by INSDAG(Institute for Steel Development & Growth). The design topic was World Class Hospital at Delhi.
3. Ms. Neelakshi Joshi won first prize for the year 2009 BERKELEY PRIZE for Essay Competition, organized by University of California, Berkeley (June 01, 2009).

Students' Activities:

1. Students' of Architecture, B.I.T Mesra, Ranchi, attended an Educational Tour from 15th -28 th December 2008.
2. Students of Architecture, B.I.T Mesra, Ranchi, attended NASA convention in the month of February 2009.
3. Students of Architecture, B.I.T Mesra, Ranchi, attended ZONASA convention in the month of October 2008 at Jadavpur University, Kolkata.

Other Information:

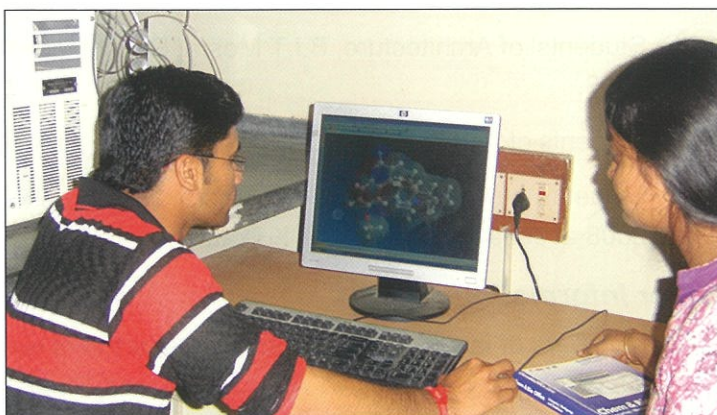
1. Members of faculty the Architecture Department were invited as resource persons to deliver lectures on various aspects related to Architecture and Planning like housing, tourism, disaster management etc. organised by SKIPA (SriKrishna Institute of Public Administration, Ranchi) and Tata Steel.
2. Ar. Rachna Khare delivered talk on 'Autism and School Design', on 19th April'2008 at Department of Education, University of West Georgia, USA.
3. Dr. Satyaki Sarkar selected as Referee for International Journal of Urban Studies and State Co-convener, Jharkhand State Chapter, INTACH.
4. Dr. Satyaki Sarkar elected Secretary, Jharkhand Regional Chapter of ITPI for 2009-10 and Honorary Joint Secretary, Architects Association of Jharkhand for 2009 –10.
5. Ar. Harshit Lakra did her Graduation and Masters in City & Regional Planning with specialisation in Economics and Community Development from Cornell University.
6. Ar. Bimal Chandra Roy and Ar. Anuj Kumar Toppo elected as Executive Member of Architects association of Jharkhand for 2009-10.
7. Mrs. Anindita Banerjee is pursuing M.Phil. in Sustainable Development on the topic "Exploring the issues & possible measures on Sustainable Development of Coastal Zone of Indian Ocean."

Department of Applied Chemistry



The Department has been involved in imparting pure and applied chemistry courses for undergraduate as well as postgraduate students. A new postgraduate programme (M. Sc. in Applied Chemistry) has started from spring 2009 semester. The Department is also involved in running multidisciplinary postgraduate programme in Environmental Science and Engineering. The Department houses well established fuel technology and water quality monitoring and testing laboratories. The faculties of the Department are

engaged in some of the areas of current research such as synthesis and characterization of polymeric biomaterials, ground and surface water quality assessment, wastewater treatment, dye-based polymers, oscillation reactions, bio-diesel, non-conventional energy sources, microbial fuel cells, computational chemistry, medicinal chemistry, supramolecular chemistry, nano-chemistry, drug delivery, environmental exposure and health. The Department has been promoting interdisciplinary environmental research, teaching and service activities within the organization. The Department has been actively involved in promoting environmental awareness amongst the tribal and rural population in and around Ranchi..



Programme Offered:

M. Sc. Applied Chemistry (Postgraduate Course)

New Programme Proposed:

- M.Sc. Medicinal Chemistry
- M.Sc. Biochemistry

Projects:

Ongoing Project

Sl. No.	Research Project Topic	P.I./Co-P.I	Funding Agency	Amount Sanctioned
1	Water Quality monitoring & surveillance	Prof. Usha Jha	UNICEF	11.0 Lakh
2	Introduction of semi-micro analytical technique	Prof. Usha Jha	World Bank	20 Lakh
3	Development & application of hydrolyzed and unhydrolyzed polyacrylamide grafted tamarind kernel powder (TKP) as flocculant for wastewater treatment	Prof. Usha Jha Dr. Sagar Pal	DST	8 Lakh
4	Synthesis and Evaluation of polymeric adsorbents for the removal of Fluoride.	R. K. Dey	UGC	5.8 Lakh

Project(s) completed during the year 2008-09:

Sl. No.	Research Project Topic	P.I./Co-P.I	Funding Agency	Amount Sanctioned
1.	Evolution of sequential oscillation in a single organic substrate in a chemical system	Dr. P.K. Srivastava (P.I.)	University Grants Commission, New Delhi	2.57 lakh
2.	Testing the validity of Faraday's law, Ohm's Law and Optimization of machining parameter and newly emerging materials	Dr. P.K. Srivastava (Co-P.I.)	University Grants Commission, New Delhi	5.06 lakh

Project(s) submitted during the year 2008-09:

Sl. No.	Research Project Topic	P.I./Co-P.I	Funding Agency	Amount Sanctioned
1.	Infrastructure Development	Prof. U. Jha	DST FIST	Submitted
2.	The target based discovery of carbocyclic nucleosides as an anti-HCV agent through computer assisted drug design and synthesis.	Dr. Ashoke Sharon (PI)	DST, FAST Track, New Delhi	Considered for sanction
3.	Computer Assisted Design and Synthesis of carbocyclic nucleosides as an anti-hepatitis agent.	Dr. Ashoke Sharon (PI)	UGC, New Delhi	Submitted
4.	Structure-based investigation to understand the molecular basis of an anti-viral drug resistance by molecular modeling.	Dr. Ashoke Sharon (PI)	DBT, New Delhi	Submitted
5.	Design, Synthesis and Evaluation of some Imidazole analogs as novel HIV-1- Reverse Transcriptase Inhibitors	Dr. Ashoke Sharon (Co-PI)	DST, New Delhi	Submitted
6.	Discovery of HepDirect Nucleotide Prodrug as Anti-Hepatitis B agent	Dr. C. Bal (PI)	DST, FAST Track, New Delhi	Submitted

Publications:**Journals (2008-09):**

1. K. Avishek, U. Jha, et. al, Water quality assessment of Majhiaon block of Garwa district in Jharkhand with special focus on fluoride analysis. Environ. Monit. Assess. 2009, 1077-4.
2. U.Jha & Deep Shikha et.al, "Microstructural and Biocompatibility investigation of alumina after 30 kev and 60 kev nitrogen ion implantation." Accepted in the "journal of surface coating & technology".2009. 203, 17-18, 2541-2545.
3. U. Jha & Deep Shikha et.al, "Improvement in corrosion resistance of biomaterial alumina after 60 kev nitrogen ion implantation", International Journal of Advanced Ceramics & Technology, 2008, 5, 44-48.
4. Patnaik, T., Dey, R. K., Antimicrobial activity of Friedelan-3 β -ol and trans-N-caffeoyltyramine isolated from the root of Vitis trifolia. Asian J. Chemistry, 20, 2008, 417 – 421.

5. Dey, R. K., Airoidi, C. Designed pendant chain covalently bonded to silica gel for cation removal, *J. Hazardous Materials*, 156, 2008, 95-101.
6. Pal S., Sen G, Dey, R. K., Jha U. Carboxymethyl tamarind synthesis, characterization and its application as novel drug delivery agent, *J. Applied Polymer Sci.*, 110, 392-400.
7. Dey, R. K., Oliveria F. J. E. V. Airoidi, Claudio 2008: Mesoporous silica functionalized with diethylenetriamine moiety for metal removal and thermodynamics of cation-basic centre interactions, *Colloid and Surfaces A: Physicochemical & Engineering Aspects*, 324, 41-46.
8. Dey, R. K., Jha U., Patnaik Tanushree, Singh A. C., Singh V. K. Removal of toxic/heavy metal ions using ion-imprinted aminofunctionalized silica gel, *Separation Sci. Technology*. 2009 (In Press)
9. Swain, S. K., Islam, M., Patel, R. K., Jha, U, Dey, R. K. Removal of fluoride from aqueous solution using aluminum-impregnated chitosan biopolymer, *Separation Sci Technology* 2009 (In Press)
10. N. Mishra, Ashoke Sharon, et. al., Structure Based Virtual Screening of GSK - 3 : Importance of protein flexibility and induced fit. *Bioorg. Med. Chem. Lett.* 2009, Accepted.
11. Kim, Ashoke Sharon, et.al. Synthesis, Anti-Hepatitis B Virus and Anti-Hepatitis C Virus Activities of 7-Deazaneplanocin A Analogues In Vitro. *J. Med. Chem.* 2009, 52, 206-213.
12. Y. Liang, Ashoke Sharon, et. al. 5'-O-Aliphatic and amino acid ester prodrugs of (-)- -D-(2R,4R)-dioxolane-thymine (DOT): Synthesis, anti-HIV activity, cytotoxicity and stability studies. *Bioorg. Med. Chem.* 2009, 17, 1404-1409.
13. Ashoke Sharon, C. K. Chu. Molecular Basis of Drug Resistance of Anti-Hepatitis B Virus Agents by Molecular Modeling. *Antiviral Research* 2008, 80, 339-353.
14. P. Liu, Ashoke Sharon, et. al. Fluorinated Nucleosides: Synthesis and Biological Implication. *Journal of Fluorine Chemistry* 2008, 129, 743-766.
15. Y. Kim, Ashoke Sharon, et. al. Structure-Activity Relationships of 7-Deaza-6-benzylthioinosine Analogues as Ligands of *Toxoplasma gondii* Adenosine Kinase. *J. Med. Chem.* 2008. 51, 3934-45.
16. Ashoke Sharon, C. K. Chu Clevudine (L-FMAU): A Unique Antiviral Agent for the Treatment of Chronic Hepatitis B Virus Infection. In XIVth Symposium on Chemistry of Nucleic Acid Component, Cesky Krumlov, Czech Republic, In proceedings; 2008.
17. Gautam Sen, Ranvijay Kumar, S. Ghosh, Sagar Pal. "A novel polymeric flocculant based on polyacrylamide grafted carboxymethylstarch" *Carbohydrate Polymers*, Vol.77, pp.822 (2009).
18. Gautam Sen, Sagar Pal; Microwave initiated synthesis of polyacrylamide grafted carboxymethylstarch (CMS-g-PAM): Application as a novel matrix for sustained drug release, *International Journal of Biological Macromolecules*, Vol.45, pp.48 (2009).
19. Gautam Sen, Sagar Pal "A novel polymeric biomaterial based on carboxymethyl starch and its application in controlled drug release". *Journal of Applied Polymer Science* (In press, DOI: 10.1002/app.30762) (2009).
20. Gautam Sen, R. P. Singh, Sagar Pal. "Microwave mediated synthesis of polyacrylamide grafted sodium alginate: Synthesis and characterization". *Journal of Applied Polymer Science* (In press, DOI:10.1002/app.30596) (2009).

21. Gautam Sen, Sagar Pal. "Polyacrylamide grafted carboxymethyl tamarind (CMT-g-PAM): Development and application of a novel polymeric flocculant". *Macromolecular Symposia*. Vol.277, pp.100- 111(2009).
22. Witold Brostow, Haley E. Hagg Lobland, Sagar Pal, Ram P. Singh. "Flocculation: Purification of wastewater and industrial effluents". Accepted, *Journal of Materials Education*.
23. Witold Brostow, R. P. Singh, Sagar Pal. "Wastewater treatment improved by better flocculant". *MRS Bulletin*.
24. Sagar Pal. "Carboxymethyl guar (CMG): synthesis and its macromolecular characterization". *Journal of Applied Polymer Science*, Volume 111, Issue 5, pp. 2630-2636 (2009).
25. Ram P. Singh, Sagar Pal, S. Krishnamoorthy, S. K. Ali, P. Adhikary. "High technology materials based on modified polysaccharides". *Pure and Applied Chemistry*, Vol. 81, No. 3, pp. 525-547 (2009).
26. Witold Brostow, Haley E. Hagg Lobland, Sagar Pal, R.P. Singh. "Flocculation of Iron and Manganese Ore-containing suspensions". *Polymer Engineering & Science*. **Vol. 48, Issue 10, pp. 1892 - 1896** (2008).
27. Sagar Pal, G. Sen, N. C. Karmakar, D. Mal and R. P. Singh. "Synthesis, characterization and application of cationic polysaccharides as flocculants in relation to coal fine suspension". *Carbohydrate Polymers*, Vol. 74, Issue 3, pp. 590-596 (2008).
28. Sagar Pal, G. Sen, S. Mishra, R. K. Dey, U. Jha. "Carboxymethyl tamarind: synthesis, characterization and its application as novel drug delivery agent". *Journal of Applied Polymer Science*, Vol. 110, Issue 1, pp. 392-400 (2008).
29. Sagar Pal, D. Mal, R. P. Singh. "Characterization of cationic starch: an efficient flocculating agent". *Journal of Applied Polymer Science*. Vol. 108, Issue 4, pp. 2674-2681 (2008).
30. G. K. Agarwal, G. D. Nigam. "The Fascinating World of Symmetry". *The Indian Association of Physics Teachers*, 25(7), 233-239, (2008).

Proceedings:

1. Ashoke Sharon, C. K. Chu Clevudine (L-FMAU): A Unique Antiviral Agent for the Treatment of Chronic Hepatitis B Virus Infection. In XIVth Symposium on Chemistry of Nucleic Acid Component, Cesky Krumlov, Czech Republic, In proceedings; 2008.
2. Sandipta Ghosh, Usha Jha, Sagar Pal. "Microwave assisted synthesis of polyacrylamide grafted TAK: A high performance flocculating agent" Participated and presented a paper in ICRM (international conference on Recycling and reuse of Materials) held at IMSE, kottayam, kerala on 17th – 19th July, 2009.
3. G. K. Agarwal, U. Jha & R. K. Jha. "Impacts of Smokeless Tobacco on Health of the Rural Population in Mesra village of Ranchi" 14th World Conference on Tobacco and Health, Mumbai, India (8-12 March 2009).
4. Deep Shikha, U. Jha, et. al. Effect of nitrogen ion implantation in alumina for orthopedic implant, Oral presented in the National symposium on Advanced Ceramics and composites, organized by Indian Ceramic Society, Jamshedpur Chapter in conjunction with National Metallurgical Laboratory and NIT Rourkela, Ceramic Engg. Dept. and Tata Steel to be held on May 7-8, 2009, venue Centre for Excellence Auditorium Jubilee Park Road, Jamshedpur. proceedings p-105-123

Books:

1. Ashoke Sharon, A. Jha, C. K. Chu. "Clevudine (L-FMAU): A Unique Antiviral Agent for the Treatment of Chronic Hepatitis B Virus (HBV) Infection" Accepted, Analogues Based Drug Discovery, Publisher: IUPAC (International Union of Pure and Applied Chemistry).
2. K.C. Satpathy, U. Jha, "Environmental Science & Engineering" Vrinda Publications, 2009.

Patents:

1. R. P. Singh and Sagar Pal. "Process for manufacture of cationic amylopectin and method of flocculation". Indian Patent No. - 224777.

Seminar(s)/ Symposium(s)/Invited Lectures/Short-term Course(s) Attended/ Participated by faculty members:

1. Dr. Ashoke Sharon, Invited Lecture, Title: "A Structure-Based Approach towards Antiviral Drug Discovery" at CDRI (Central Drug Research Institute, Lucknow), June 2, 2009.
2. Dr. Ashoke Sharon, Academic Coordinator, Computer Aided Molecular Modeling and Design Lab (CAMMD Lab), AICTE Sponsored Quality Improvement Program (QIP), Drug Discovery Approaches, Department of Pharmaceutical Sciences, BIT Mesra, May 4-May 16, 2009.
3. Dr. Ashoke Sharon, Invited Lecture, Title: "Structure-Based Drug Design: A rational approach for Drug Discovery" AICTE Sponsored Quality Improvement Program (QIP), Drug Discovery Approaches, Department of Pharmaceutical Sciences, BIT Mesra, May 6, 2009.
4. Dr. Ashoke Sharon, Invited Lecture, Title: "HepDirect and Prodrug Approaches for Site Selective Drug Delivery" AICTE Sponsored Quality Improvement Program (QIP), Drug Discovery Approaches, Department of Pharmaceutical Sciences, BIT Mesra, May 6, 2009.
5. Dr. R. K. Dey, Removal of fluoride using Aluminium impregnated chitosan. National Conference on Recent Advances in Chemical Sciences, PG Dept. of Chemistry, Govt. Dungar College, Bikaner, Rajasthan. Oct 03-05, 2008.
6. Deep Shikha, Usha Jha, et.al., "Microstructure and Biocompatibility investigation of biomaterial alumina after 30 keV, 60 keV and 90 keV nitrogen ion implantation", presented contributory talk & paper submitted for proceedings in the All India Seminar on Recent Advances in Nanotechnology – State of the Art, at BIT Mesra, Ranchi held on 14-15 June 2008.
7. Deep Shikha, Presented contributory talk & paper submitted for proceedings in the All India Seminar on Recent Advances in Nanotechnology – State of the Art, at BIT Mesra, Ranchi held on 14-15 June 2008.

Awards/Honours Bestowed:

SL	Name of Faculty	Awards/Citations/Members
1.	Dr. Usha Jha,	Nomination as Senate member of Birsa Agricultural University, Ranchi
2.	Dr. Sagar Pal	Fellow, Indian Chemical Society
3.	Gyan Kumar Agarwal	Associate Member, Royal Society of Chemistry, Life Member, Indian Society for Technical Education, Affiliate Member, Society for Research on Nicotine and Tobacco,
4.	Gautam Sen	Fellow, Indian Chemical Society

Member in Editorial Board:

SL	Name of Faculty	Name of Journal
1	Dr. Usha Jha,	Environmental Journal of Chemistry
2	Dr. R.K. Dey	International Journal of Chemistry
3	Dr. Sagar Pal	International Journal of Chemistry

Other Information:**National and International Collaborative Research Initiated:**

The Department of Applied Chemistry has initiated Research collaboration with the following Universities and Institutions:

1. Drug Discovery Group, University of Georgia, Athens, GA, USA
2. Center for Chronic Viral Diseases, Graduate School of Medical and Dental Sciences, Kagoshima University Kagoshima 890-8544, Japan.
3. Medicinal and Process Chemistry Division, Central Drug Research Institute (CDRI), Lucknow.
4. Molecular and Cellular Biochemistry Group, Division of Infectious Diseases and Immunology, Indian Institute of Chemical Biology, IICB Kolkata-700032.
5. Division of Pulmonary, Critical Care & Sleep Medicine, State University of New York at Buffalo, USA

Department of Applied Mathematics



Department of Applied Mathematics is one of the oldest Departments in the Institute. It handles all the mathematics courses offered in different branches if engineering, management, pharmaceutical sciences, architecture and the university polytechnic. The Department launched its own AICTE approved postgraduate course: M. Tech. in Scientific Computing in 2002 with a total intake of 25 seats including SC/ST & sponsored students. To meet the requirement of this course, the Department has setup a computer center with latest

scientific softwares such as SPSS-15v, c++, CR-BASIC, VB, QuickHeal, MACfee, AVG8.0, Kaspersky, GEO-MEDIA (GIS package), Logger-Net (for meteorological data retrieval software), Climate Model Software such as: NOAH-LSM (model), etc. The Department consists of 13 faculties including one Scientific Officer and eight Research Scholars. The faculty members are aggressively engaged in research and development activities. The areas where research is in progress include:

- Fluid Mechanics
- Solid Mechanics
- Mathematical modeling
- Cyber defence
- Blood flow
- Seismology
- Fuzzy optimization
- Differential equation
- Difference equation
- Forest-fire forecasting
- Sampling theory
- Land surface processess
- Agricultural Meteorology
- Atmospheric Sciences
- Energy and Mass Balance in vegetative system
- Probability and Statistics
- Operation Research
- Application of Statistics in Music
- Functional Analysis

Infrastructure added:

Two Work Stations, One Telescope

Programmes offered:

M.Tech in Scientific Computing, M.Sc. in Applied Mathematics

Projects:**Ongoing:**

Sl. No	Title of the Project	Funding Agency & Funds Received	Date of Sanction	Status
1.	Green's function, existence & asymptotic behaviour of periodic solutions of functional differential equations (P.I.-Dr. S. Padhi)	National Board of Higher Mathematics, DAE (Rs. 12.0 Lakhs)	26-2-2007	On-going
2.	Energy & Mass Exchange in Vegetative System (Dr. Manoj Kumar) Under Collaborative mode	SAC, ISRO, Ahmedabad (Rs. 4.4 Lakh)	24-3-2008	On-going
3.	Lightening Project (CI)-Implementing Dept.- EEE	DST, GOJ released Rs. 75.0 Lakhs	1-4-2008	On-going
4.	Observational study of land surface atmosphere interaction in the monsoon trough along its active eastern end (Prof. N.C. Mahanti & Dr. Manoj Kumar)	DST, GOI, New Delhi (Rs. 62.0 Lakhs)	7-12-2006	On-going
5.	Development of forest fire forecasting system of Jharkhand state using statistical techniques and GIS (Dr. Manish Trivedi & Dr. Manoj Kumar)	NRDMS, DST, New Delhi (Rs. 24.6 Lakhs)	19-5-2007	On-going
6.	Short term oscillation study of surface boundary layer during total solar eclipse on 22nd July, 2009 & 15th Jan 2010 (Dr. Manoj Kumar & Prof. N.C. Mahanti)	ISRO (HQ), Rs. 2.0 Lakhs		On-going
7.	Long-term study on aerosol monitoring (Prof. N.C. Mahanti Dr. Manoj Kumar) Under collaborative mode with IITM, Pune	Collaboration with IITM Pune		On-going

Projects completed:

Sl. No	Title of the Project	Funding Agency & Funds Received	Date of Sanction	Status
1.	Training Course on "Basic concepts on Micrometeorology, land surface processes: Its observational techniques and analysis" (Dr. Manoj Kumar)	DST, Govt. of India, (Rs. 7.35 lakhs)	05-12-2008	Completed (Feb 10-12, 2009)
2.	Instructional workshop on Global attractively of periodic solutions of functional differential equations with applications to population dynamics (Dr. S. Padhi)	NBHM, DAE (3.5 Lakhs)		Completed 9-23 June, 2008

Seminar/conferences/short term courses conducted by the Department:

Sl. No	Title of the Project	Funding Agency & Funds Received	Date of Sanction	Status
1.	Training Course on "Basic concepts on Micrometeorology, land surface processes: Its observational techniques and analysis" (Dr. Manoj Kumar)	DST, Govt. of India, New Delhi (Rs. 7.35 lakhs)		Completed (Feb 10-12, 2009)

2.	Instructional workshop on Global attractivity of periodic solutions of functional differential equations with applications to population dynamics (Dr. S. Padhi)	NBHM, DAE (3.5 Lakhs)		Completed 9-23 June, 2008
3.	One day seminar on recent trend in statistics (Dr. M.Trivedi)	SPSS south Asia Pvt. Ltd. Bangalore Rs. 10,000/-		Completed June 29, 2009.

Seminars/conferences/short term courses attended by the faculty:

Sl. No.	Faculty Name	Topic/Area	Organization/ Institute	Funding Agency
1.	Dr. S.Padhi	Differential Equations	Texas State University, San Marcos, Texas, USA.	NBHM, Texas State University
		Recent Developments on Dynamic Equations on Time Scales, 2009.	University of Wyoming, Laramie, Wyoming, USA.	NBHM, University of Wyoming.
2.	Dr. N.C.Mahanti	GMW on ICRP & MONTCLIM,2008.	KAU, Kumarakom	DST, GOI
		CAWSES-India discussion on Total solar eclipse,2008	ISRO, Bangalore	ISRO, Bangalore HQ
		CTCZ-SSC meeting, 2008	IITM Pune	BIT, Mesra
3.	Dr. Manoj Kumar	Workshop on STORM Project.2008	IIT Kharagpur.	DST, GOI.
		ISRO-RESPOND Meeting,2008.	SAC, Ahmedabad	ISRO
		GMW on ICRP & MONTCLIM,2008.	KAU, Kumarakom	DST, GOI
		SAC-ISRO-BIT Collaborative Work, 2008.	SAC, Ahmedabad	BIT/ISRO.
		ISRO-MOP Meeting on RCM,2008.	SAC, Ahmedabad	BIT/ISRO
		CAWSES-India,2008. Discussion on Total solar eclipse.	ISRO, Bangalore	ISRO, Bangalore HQ
		MoES sponsored meeting on STORM working Group, March'09	IMD, Kolkata	MoES, GOI, New Delhi

Publications:

1. Seshadev Padhi, Shilpee Srivastava and Julio G.Dix, Three periodic solutions of a system of functional differential equations and its application to hematopoiesis. Pan Amer. Math. J., 19(1)(2009), 27-36.
2. Seshadev Padhi, Smita Pati and Shilpee Srivastava, Multiple positive periodic solutions for nonlinear first order functional difference equations, Int.J.Dynamical Systems and Differential Equations, 2(1&2)(2009),98-114.

3. Seshadev Padhi and Chuanxi Qian, Oscillation of natural delay difference equations of second order with positive and negative coefficients, *Math Slovaca*.59(4)(2009).455-470.
4. B.K.Mishra, Navnit Jha and R.K. Mohanty Alternating group explicit iterative method for nonlinear singular Fredholm Integro-differential boundary value problems, *International Journal of Computer Mathematics*, Vol. 86, No. 9, (2009), 1645–1656.
5. Bimal Kumar Mishra, T. C. Panda, Priyabrata Pradhan, Effect of Resistance parameter on uniform and non uniform portion of artery for non Newtonian fluid model of blood flow through an arterial stenosis —, *Journal of Modern Mathematics and Statistics*, 2(6), (2009),203-206.
6. M. Trivedi; Pooled Estimation Technique Under Post-Stratified Cluster Sampling Scheme, *InterStat*, February 2009, # 1, p.p.1-16.
7. M. Trivedi, Manoj Kumar and Repunjai Shukla; Statistical Modelling On Weather Parameters to Develop Forest Fire Forecasting System, *Korean Journal of Applied Statistics*, Volume 22(1), February 2009, pp. 221-235.
8. M. Trivedi, Manoj Kumar and Repunjai Shukla (2009); Comparison of Exponential Family Distributions in the context of Seasonal Cumulative Rainfall, Accepted in Proceeding of One day Seminar on “Recent Trends in Statistics” Organised by Jharkhand Statistical Society held at BAU, Ranchi on June 28, 2009.
9. Swati Pandey, Manoj Kumar, S. Chakravorthy, and N.C. Mahanti, A Statistical Approach to Examine the Impact of Various Meteorological Parameters on Pan Evaporation. *Korean J. of Applied Statistics (KJAS)*, *Korean Statistical Society* 22(3)(2009),515-530.
10. Manoj Kumar, Vyas Pandey, and A.M. Shekh, Diffusion resistance, leaf conductance, stomatal conductance and sensible heat flux in wheat crop as influenced by water stress at different plant growth stages. *World J. of Applied Sciences*, 6(6)(2009), 793-801.
11. S. Chakraborty, On a memorable experience I had paying the raga Kirwani, *EUNOMIOS*, May 17, 2009, <http://www.eunomios.org/> (an open online journal for theory, analysis and semiotics of music).
12. D. Sahani and S. Chakraborty, How many interchanges does the selection sort make for iid geometric(p) input?, *Annals. Computer Science Series*, Vol. VII, Fasc. 2, 2009, 67-76.
13. R. Shukla and S. Chakraborty, On an ethical use of neural networks: a case study on a north Indian raga, *Annals. Computer Science Series*, Vol. VII, Fasc. 2, (2009), 41-56.
14. Seshdev padhi and Shilpee Srivastava, Multiple periodic solutions for first order functional differential equations with applications to population dynamics, *Appl. Math. Comp.*, 203(2008)1-6.
15. Seshadev Padhi, R.N.Rath and B.L.S.Barik, Oscillatory and Asymptotic Behaviour of a homogeneous neutral Delay Difference equations of second order, *Bull. Inst.Math.Acad.Sinica*,3(3)(2008)453-467.
16. Manoj Kumar and Vyas Pandey, Validation of different Evapotranspiration models over semi arid region of India. *Int. J. IJMSA, Korea*, 1 (2),(2008), 175-186.
17. Manish Trivedi, Efficient Estimator in Successive Sampling Using Post-stratification, *Interstate*, February 2008, # 1, p.p.1-7.
18. Manish Trivedi, Manoj Kumar and R.K. Shukla, Efficient Statistical Modeling Of Area, Production And Productivity Of Groundnut *Arachis Hypogaea L.)* In Semi Arid Region Of India, *International Journal of Mathematical Modelling, Simulation and Applications*, Vol. 1, No. 3, 2008, pp- 321-327.

19. Manish Trivedi, A Modified Group of Estimators for Mean Estimation In Post-stratified Cluster Design, Book Review "Statistical Technique in Life-Testing, Reliability, Sampling Theory and Quality Control", Narosa Publishing House, New Delhi, 2008, pp. 88-103.
20. Swati Pandey, Manoj Kumar and N C Mahanti, Evaluating interrelationship of meteorological parameters using regression model: A case study from Ranchi, Jharkhand state, INDIA. Ind. J. Soil Conservation, 36(3), (2008) 136-143.
21. Chinmay Mallik, Manoj Kumar, Anil Kumar, N.C. Mahanti and S. Chaudhari. 2008. Rainfall pattern during South-West Monsoon period over the Indian region - A Statistical Approach. Int. J. IJMSA, Korea, 1(4),(2008).
22. S.Chakraborty, S.Sloanki, S.Roy, S.S.Tripathy and G.Mazzola, A statistical comparison of performance of two ragas(dhuns) that use the same notes, Proceedings of FRSM-2008, SCVRCPM, Jadavpur University, Kolkata.
23. S. Chakraborty, On a randomized comparison of randomized string matching and naïve string matching. Journal of modern Math. Stats., 2(2),(2008),70-72.
24. S.K.Sunanda, C.Nahak, S.Nanda, A new Generalization of the Hilbert-Pachpatte-type, International Journal of Modern Math, 3(1)(2008)37-46
25. P. Kaur and N.C. Mahanti. A Fuzzy ANP-Based Approach for Selecting ERP Vendors, International Journal of soft computing, 3(1)(2008)24-32.
26. Anurag Jayswal. 2008. Non-differentiable minimax fractional programming with generalized α -univexity, Journal of comp. Appl. Math. 214(2008)121-135
27. Ripunjai Shukla, J. S. Patel, S. K. Dixit, M. Trivedi and Manoj Kumar - efficient statistical modeling of area, production and productivity of groundnut (*Arachis hypogaea* L.) In semi arid region of India, IJMSA, Korea Vol.1(3), 222-227.
28. Pradhan, A., Samal, S. K. and Mahanti, N. C. Surface waves in a liquid filled porous solid layer bounded by electric half-space and liquid layer. Bulletin of Calcutta Mathematical Society, Vol. 100, No. 4, 2008.
29. Padhi, S. and Julio, G. D. Oscillation of Functional Differential Equations Of n-th Order With Distributed Deviating Arguments, Journal Contemporary Math. 1(1), (2008), 11-24.
30. Kumar, Anil, V. Pandey, Manoj Kumar and A.M. Shekh. 2008. Correlation Study in Soybean (*Glycine max.* [L] Merrill) with Response to Prevailing Weather Parameter, Agro-meteorological Indices to Seed and Stover Yield at Anand. Article in Press for Publication in American Eurasian J. of Agronomy, 1(2):31-33, 2008.
31. Kumar, Anil, V. Pandey, A.M. Shekh, S.K. Dixit and Manoj Kumar. 2008. Evaluation of CROPGRO-Soybean (*Glycine max.* [L] (Merrill) Model under Varying Environment Condition. American Eurasian J. of Agronomy, 1 (2): 34-40, 2008.
32. Kumar, Anil, V. Pandey, and Manoj Kumar. 2008. Radiation Use Efficiency and Weather Parameter Influence During Life Cycle of Soybean (*Glycine max.* [L] Merrill) Production as Well Accumulation of Dry Matter. American-Eurasian Journal of Agronomy 1 (2): 41-44, 2008.
33. Kumar, Anil, V. Pandey, A.M. Shekh and Manoj Kumar. 2008. Growth and Yield Response of Soybean (*Glycine max* L.) In Relation to Temperature, Photoperiod and Sunshine Duration at Anand, Gujarat, India. American Eurasian J. of Agronomy, 1(2): 45-50, 2008.

34. Trivedi Manish, Manoj Kumar, and R.K. Shukla. 2008. Time series models for smoothing and forecasting weather parameters influencing forest fires, *Statistics in Transition*, Vol.9, No.3, December 2008, pp 389-408.
35. Kumar, Manoj, Chinmay Mallik, Anil Kumar, and N.C. Mahanti. 2009. Thermodynamic Behavior of the Planetary Boundary Layer in a Semi Arid Region of India. Published online in *Int. J. of Dynamics of Atmospheres and Oceans*, DOI information: 10.1016/j.dynatmoce.2009.01.002.
36. Trivedi, Manish, Manoj Kumar, and R.K. Shukla. 2009. Statistical Modeling On Weather Parameters to Develop Forest Fire Forecasting System, *Korean J. of Applied Statistics*, 22(1), February 2009, pp. 221-235.
37. Pandey, Swati, Manoj Kumar, S. Chakravorthy, and N.C. Mahanti. 2009. A Statistical Approach to Examine the Impact of Various Meteorological Parameters on Pan Evaporation. Article in Press in *Korean J. of Applied Statistics (KJAS)*, Korean Statistical Society, 22(3):515-530, June, 2009.
38. Kumar, Manoj, Vyas Pandey, and A.M. Shekh. 2009. Diffusion resistance, leaf conductance, stomatal conductance and sensible heat flux in wheat crop as influenced by water stress at different plant growth stages. *World J. of Applied Sciences*, 6(6): 793-801.
39. Kumar, Manoj, Anil Kumar, N.C. Mahanti, Chinmay Mallik and Ripunjay K Shukla. 2009. Surface flux modelling using ARIMA technique in humid subtropical monsoon area. Published online in *J. Atmos. & Solar Terrestrial Physics*, doi:10.1016/j.jastp.2009.05.001.

MOU:

1. An MOU has been signed with IITM, Pune to study on aerosol dispersion in Eastern Region. Under this collaborative work, regional modeling of aerosol, water vapour content, aerosol optical depth and ozone optical depth will be done for the eastern region of India.

Other information:

1. The Department is planning to start an Integrated Ph.D. Programme with NBHM, Department of Atomic Energy Support. The Department is also planning to start an Interdisciplinary Centre for Atmospheric Science and Technology.
2. Department has been assigned by ISRO HQ (Bangalore) to study short term oscillation of Total Solar Eclipse which was held on 22 July, 2009 and another will be occurred on January 2010 under its CAWSES-India Programme. Valuable information were obtained on surface layer oscillations and process study during the eclipse on 22 July'09 from different tracking path.

Department of Applied Mechanics

The **Department of Applied Mechanics** was initiated in 1995. The objective for the creation of this Department was to function as a service Department to all engineering students for teaching common subjects like Engineering Mechanics, Engineering Graphics etc. From July 1999, the Department started a full time ME programme in Computer - Aided Analysis & Design. The Department has well equipped Computer- Aided Design & Drafting laboratory with latest state-of-the-art software tools and a state-of-the-art Dynamics & Vibration laboratory to serve its ME and Ph.D. students.

Programme offered:

PG Programme

Master of Engineering in Computer Aided Analysis & Design

The Department offers two courses for all the undergraduate students

1. Engineering Mechanics
2. Engineering Mechanics Lab

Seminar/Conferences/Short Term Courses conducted by the Department:

The Department conducted a national Conference on “Recent Advances in Nanotechnology-State of the Art” in association with The Institution of Engineers, Jharkhand and The Department of Biotechnology, B.I.T., Mesra during 14th -15th June, 2008.

Seminar/Conferences/Short Term Courses attended by the faculty:

1. Prof. A.K.Ray and Mr. Sankha Bhaduri attended a short term training programme on ANSYS during 16th-20th July 2008 at B.I.T., Mesra.
2. Mr. Sankha Bhaduri attended workshop on “Effective Teaching” during 25th-29th August 2008.
3. Mrs. K.Mrunalini attended workshop on “Effective Teaching” during 16th-20th August 2008.

Publications:

1. Shruti Kumari, P.P.Borah, A.K.Ray, “Molecular Dynamics Simulation of Water Diffusion and Permeation through Single Walled Carbon Nanotubes”, National Conference on “Recent Advances in Nanotechnology-State of the Art” B.I.T., Mesra 14th -15th June, 2008.
2. K.Mrunalini, K.Ray, “Parametric Instability and Control of Functionally Graded Beams”, Advances in Vibration Engineering, Vol-9, No.1.in press.
3. N.R.Singh, R.P.Singh, S.C.Srivastava, “An Artificial Neural Network to predict stiffness of a given system”, National seminar on Micro-Nano anufacturing, C.I.T., Ranchi, Jharkhand, 6th-7th December, 2008.

The Department has already completed the process of reviewing the course structure and syllabus of the ME(CAAD) programme. The programme has been updated and the approval from the Technical council has been granted. The syllabus of some of the subjects updated to meet the present day requirements and some new subjects introduced to make the programme research oriented.

Department has prepared the e-content of class notes for Engineering Mechanics in Power-Point format. The content has been kept in the institute’s intranet for downloading the content and use it for in-depth learning of the subject. Some the lecture halls are equipped with LCD projectors and computers. Now the Department is going to use these notes for classroom display.

Department of Applied Physics



The Department of Applied Physics came into its being as an integral part of the institute with its inception in the year 1955. Since then the Department has been engaged in activities that have brought pride for the institute. It has a gamut of well qualified and highly motivated faculty actively involved in teaching and research. Owing to its significant and sizable contribution in research and development it is nationally and internationally acknowledged and acclaimed. The Department offers Physics and Material Science courses at the B.Tech. level and M.Sc. Applied Physics. In addition, it has been offering a highly specialized

M. Tech. course in New Material Processing and Technology (MNPT) that caters to the needs of Material Processing Industries and various R&D organizations. Over the years it has produced many Ph.Ds in both experimental and theoretical physics and a number of dedicated research scholars are presentably working towards their Ph.D.

At present the Department has 21 faculty members including scientific officers and 13 research scholars. Besides normal teaching activities, faculty members of the Department are actively engaged in research activities in several emerging areas of state of the art technologies like nanotechnology, plasma assisted surface engineering, laser & plasma processing of materials, composite materials, high T_c superconductors, long haul optical communication systems, optical coherence tomography, real time holography. At present faculty members are executing 14 research projects funded by DST, AICTE, DRDO, BRNS, ARDB, UGC. An Indo-German project



is also in progress under Indo-German Bilateral Cooperation in Science and Technology (DST-BMBF). Faculty members have been experts on UGC and NAAC teams, referees of journals of international repute, and visiting fellows at various international laboratories. The Department has been also regularly organizing seminars and symposia.

Programmes offered:

1. M. Tech in New Materials and processing Technology
2. M.Sc (Applied Physics) since January 2009.

Sponsored Projects:**Projects Ongoing:**

Sl. No	Principal Investigator	Year (Date of Sanction)	Funding agency	Project Title	Amount (Rs. in lacs)	Status completed/ ongoing
1.						
2.	Dr. S. Konar	17.07.05	DRDO	Simulation and analytical investigation of nonlinear optical pulse propagation in photo refractive crystal.	14.84	Ongoing
3.	Dr. S.K. Sinha Dr. P. K. Barhai Dr. D. C. Kothari	Oct 05	ARDB	Oxidation resistance studies of titanium alloys in the temperature range 500-700°C. The effect of coatings and trace element addition.	7.429	Ongoing 4 years
4.	Dr. (Mrs.) Sunita Keshri	2006	UGC	ESR study of magnetic homogeneity in thin film of colossal magnetoresistive manganites.	4.89	Ongoing
5.	Dr. S. Konar	2006	DRDO	FDTD Modeling of Photonic Crystal Fibers: Fundamental Properties and Device Applications	15.97	Ongoing
6.	Dr. A. K. Shrivastava	10.10.07	AR&DB	Low temperature on (-50°C) effect on behavior of carbon/ epoxy composites manufactured by VERITY Process	13.60	Ongoing 2 years
7.	Dr. S. K. Rout (PI) Dr. P. K. Barhai (CI)	07.11.07	DST	Development of nano crystalline high permittivity lead free materials for microwave application.	23.35	Ongoing (3 years)
8.	Dr. P. K. Barhai	07.02.08	DST, New Delhi Indo-German	Field Emission study of diamond like carbon and nano-crystalline diamond films	5.808 & € 88841.59	Ongoing 2 years
9.	Dr. P. K. Barhai	2008	DST, New Delhi	Synthesis of Ultrananocrystalline diamond films for field emission application using microwave plasma enhanced chemical vapour deposition.	34.78	Ongoing 3 years
10.	Dr. P. K. Barhai	05.03.08	AICTE	Development of Nanostructured Carbon-nitride Coatings for Nano-Tribological Applications	5.75	Ongoing 2 years

11.	Dr. (Mrs) S. Keshri	2008	DST	Studies on ferromagnetic-ferroelectric composites and their electronic applications.	17.67	Ongoing
12.	Dr. P. K. Barhai (PI) M. K. Sinha (CI)	27.08.09	ISRO	Development and characterization of multiplayer thermal barrier coating of Hafnium Carbide (HfC) and silicon carbide (SiC) for aerospace applications.	11.18	Ongoing 2 years
13.	Dr. P. K. Barhai (PI) Dr. I. Banerjee (CI)	2009	BRNS	Study of photocatalytic activity of nano structured TiO ₂ thin films produced by plasma assisted process and correlation with plasma parameters	18.53	Ongoing 3 years
14.	Dr. S. Medekar	01.02.09	UGC	Investigation of Optical Beam Propagation in Nonlinear Media: Spatial Soliton Formation and Their Interaction for All-Optical Devices	8.28	Ongoing 3 years
15.	Dr. S. Medhekar	10.02.09	DST	Modeling and analysis of nonlinear waveguide devices for all optical switching and logic gates	23.26	Ongoing 3 years

Projects Completed:

Sl. No.	Name of Project	Name of the PI	Funding Agency	Amount (Rs. in lacs)	Sanctioned Letter No/Date
1.	Investigation of the effects of higher order nonlinearities on optical pulse propagation in semiconductor doped glass fibers and wave guides.	Dr. S. Medhekar (PI) Dr. P. K. Barhai (CI)	BRNS	8.87	2003/34/19/ BRNS/1951, 09.02.2004
2.	Support for Research and Development Facilities of the Department of Applied Physics, DST(FIST), 3 years (2003)	Dr. P. K. Barhai	DST 2003	25.00	
3.	Theoretical Investigation of Induced Nonlinear Optical wave guides and Devices.	Dr. S. Medhekar & Dr. P. K. Barhai	UGC	03.10	F.10- 25/2003(SR), 30.03.2003
4.	Effect of low temperature on fracture toughness of fiber composites.	Dr. S. Medekar	AICTE	4.00	

Seminar/ Conferences / Short term courses attended:

International:

1. Dr P. K. Barhai attended The 36th International Conference on Metallurgical Coatings and Thin Films (ICMCTF), San Diego, California, USA, April 27-May 01, 2009 and presented a paper "Study of the

effect of plasma current density on nitrides and oxynitrides titanium thin films prepared by Reactive DC Magnetron Sputtering “ in the oral presentation session.

2. Prof. S. Konar attended The Third Workshop on Advanced Display and Optoelectronics Technology (ADOT), Catholic University of Daegu, South Korea, 8-9 December, 2008.
3. Dr. S. K. Rout attended the 6th Asian Meeting on Ferroelectrics, National Taipei University of Technology, Taipei, Taiwan, 2-6 August 2008.

National:

1. Dr. S. K. Sinha attended a Workshop on “Effective Teaching”, from 25-29th August, 2008 organized by BIT Mesra, Ranchi.
2. Dr. S. Konar attended a Workshop on “Effective Teaching”, from 25-29th August, 2008 organized by BIT Mesra, Ranchi.
3. Dr. Rajeev Kumar attended a Workshop on “Effective Teaching”, from 25-29th August, 2008 organized by BIT Mesra, Ranchi.
4. Mr. M. K. Sinha attended a Workshop on “Effective Teaching”, from 25-29th August, 2008 organized by BIT Mesra, Ranchi.
5. Dr. S. K. Sinha attended TWENTY SECOND NATIONAL CONVENTION OF AEROSPACE ENGINEERS & NATIONAL SEMINAR held at BIT Mesra, Ranchi during November 27 – 29, 2008 and delivered a talk on Present Status and Technological Challenges of Indian Aerospace Programme.
6. Dr. S. K. Mahapatra has attended International Workshop on Nanotechnology and Advanced Functional Materials 2009 at NCL, Pune.
7. Dr I Banerjee has attended National workshop on plasma- surface interactions and processing (NWSP-09) at NIT, Hamirpur, Himachal Pradesh, 2009.
8. Dr. S. K. Sinha attended National symposium on Advanced Ceramics and composites, organized by Indian Ceramic Society, Jamshedpur Chapter in conjunction with National Metallurgical Laboratory and NIT Rourkela, Ceramic Engg. Dept. and Tata Steel held on May 7-8, 2009, Jamshedpur, and presented a talk on “Effect of nitrogen ion implantation in alumina for orthopedic implant”.

Publications:

International:

1. A. K. Lal, S. K. Sinha, P. K. Barhai, K. G. M. Nair, S. Kalavathy, D. C. Kothari; Effect of 60 keV nitrogen ion implantation on oxidation resistance of IMI 834 titanium alloy; Surf. Coat. & Tech, 2605-2607 (2009).
2. Deep Shikha, Usha Jha, S. K. Sinha, P. K. Barhai, K. G. M. Nair, S. Dash, A. K. Tyagi, S. Kalavathy, D. C. Kothari. Microstructure and Bio-compatibility investigation of biomaterial alumina after 30 keV and 60 keV nitrogen ion implantation. Surf. Coat. & Tech; 203, 2541–2545 (2009).
3. Gajendra Prasad Singh, Alphonsa Joseph, P. M. Raole, P. K. Barhai and Subroto Mukherjee; Phase formation in selected surface-roughened plasma-nitrided 304 austenite stainless steel. Sci. Technol. Adv. Mater; 9 01-05 (2008)
4. S. K. Rout, T. Badapanda, E. Sinha, P. K. Barhai, S. Panigrahi, T. P. Sinha ; Dielectric and phase transition of BaTi_{0.6}Zr_{0.4}O₃ ceramics prepared by a soft chemical route. Applied Physics A Materials Science & Processing; 91, 101-106 (2008)

5. V. Tyagi, M. Ranjan, R. Rane, N. Vaghela, P. K. Barhai, V. Acharya, S. Mukherjee. Deposition and characterization of copper thin films on a polymer surface by using a dc cylindrical magnetron sputtering technique. *Phys. Stat. Sol;* Vol: ?? No. 4, 960–963 (2008).
6. S.K. Rout, P. K. Barhai, E. Sinha; Diffuse phase transition of BaTi_{0.6}Zr_{0.4}O₃ relaxor ferroelectric ceramics. *Phasetransition* (In press).
7. Deep Shikha, Usha Jha, S. K. Sinha, P. K. Barhai, S. Kalavathy, K. G. M. Nair, S. Dash, A. K. Tyagi, D. C. Kothari; Improvement in corrosion resistance of biomaterial alumina after 60 keV nitrogen ion implantation. *International Journal of Applied Ceramics and Technology* (Blackwell), 5, 44-48, (2008).
8. Rishi Sharma, P. K. Barhai, Neelam Kumari. Corrosion resistant behaviour of DLC films. *Thin Solid Films*; 516, 5397-5403 (2008)
9. S. Konar, S .K. Ghorai and Rakhi Bhattacharya; Highly Birefringent Microstructured Fiber with Zero Dispersion Wavelength at 0.64 μm . *Fiber and Integrated Optics* (In press, 2008)
10. Swati Srivastava and S. Konar; Two Component Coupled Photovoltaic Soliton Pair in Two-Photon Photorefractive Materials Under Open Circuit Conditions, *Optics and Laser Technology* (in press)
11. Woo Pyo Hong, S. Shwetanshumala and S.Konar; Modulational Instability of Optical Beams in Photovoltaic and Photorefractive Media due to Two-Photon Photorefractive Effect under Open Circuit Condition; *Optics Communications* 281, 5864–5869 (2008)
12. Soumendu Jana and Swapan Konar; Far-Field Spectral Behavior and Spectral Switching of Super-Gaussian Pulses; *Optics Communications*; 281, 4829–4834 (2008)
13. Rakhi Bhattacharya and S. Konar; Design of Microstructure Fibers with Flat Negative Dispersion over Large Wavelength Bands, *J. Optoelectronics and Advanced Materials*; 10, 3 159 (2008)
14. Rakhi Bhattacharya and S. Konar; Design of a Photonic Crystal Fiber With Zero Dispersion Wavelength Near 0.65 μm ; *Fiber and Integrated Optics*; 27, 89-98 (2008).
15. M. Mishra and S. Konar; High Bit Rate Dense Dispersion Managed Optical Communication Systems With Distributed Amplification, *Progress In Electromagnetics Research, PIER* 78, 301-320 (2008).
16. Anjan Biswas, Essaid Zerrad and Swapan Konar; Soliton perturbation theory for the generalized fifth-order KdV equation . *Communications in Nonlinear Science and Numerical Simulation*. 13, 1281-1286 (2008).
17. Ram Krishna Sarkar and S. Medhekar “Mutual-focusing of two co-propagating beams and formation of trapped spatial breather pair in saturable nonlinear media”, *OPTIK* (in press).
18. S. Medhekar and Punya Prasanna Paltani “Novel All-Optical Switch using Nonlinear Mach-Zehnder Interferometer”, *Fiber and Integrated Optics*; 28, 229-236 (2009).
19. S. Medhekar and Punya prasanna Paltani, “All-Optical transistor using counter propagating beams in a Nonlinear Mach-Zehnder Interferometer” *Fiber and Integrated Optics*; 28, 268-274 (2009)
20. S. Keshri, V. Dayal, L. Joshi, “Influence of Fe doping on electrical properties of LCMO, Phase Transitions, 81, 17–28, (2008).
21. Deep Shikha, Usha Jha, S. K. Sinha, P. K. Barhai, K. G. M. Nair, D. C. Kothari, “A comparative study of corrosion resistance in Ringer solution of nitrogen implanted alumina at different energies for orthopedic implants”, *International J. of Applied Ceramics and Tech* (In press)..

22. Sunita Keshri (Shaw), Leena Joshi, Sanjeeb Kumar Rout "Influence of BTO phase on structural, magnetic and electrical properties of LCMO", J Alloys Compd. (in Press).
23. Gilho Kim, Jungsik Bang, Yunseok Kim, S.K.Rout, Seong IhlWoo, "Structural, electrical and optical properties of boron doped ZnO thin films using LSMCD method at room temperature", Applied Physics A: Mat. Sc. Proces.(In Press).
24. Ali Hussain, C.W.Ahn, H.J. Lee, I.W. Kim, J.S. Lee, S.J. Jeong, S.K.Rout, "Anisotropic Electrical Properties of $\text{Bi}_{0.5}(\text{Na}_{0.75}\text{K}_{0.25})_{0.5}\text{TiO}_3$ Ceramic Fabricated by Reactive Templated Grain Growth (RTGG)", Current Applied Physics(In Press).
25. S.K.Rout, L.S. Cavalcante, J.C. Sczancoski, T. Badapanda, S. Panigrahi, M. Siu Li, E. Longo "Photoluminescence property of $\text{Ba}(\text{Zr}_{0.25}\text{Ti}_{0.75})\text{O}_3$ powders prepared by solid state reaction and polymeric precursor method", Physica B: Condensed Matter(In press).
26. S.K.Rout, A.Hussian, J.S.Lee, I.W.Kim and S.I.Woo, "Impedance spectroscopy and morphology of $\text{SrBi}_4\text{Ti}_4\text{O}_{15}$ ceramics prepared by a soft chemical method", J Alloy Compd; 477, 706-711 (2009).
27. L.Joshi, S. Keshri and S.K.Rout "Electronic transport in LCMO/BTO composites", Phasetransitions; 82, 123-130 (2009).
28. T.Badapanda, S.K.Rout, S.Panigrahi, T.P.Sinha and S.I.Woo "Effect of Dy substitutuon on dielectric properties of BTZ relaxor ceramics" Ferroelectrics; 385; 177-186 (2009).
29. E.Sinha and S.K.Rout "Influence of fibre-surface treatment on structural, thermal and mechanical properties of jute fibre and its composites, Bulletin of Materials Science; 32, 65-76 (2009).
30. S.K.Rout, E.Sinha, A. Hussian, J. S. Lee, C. W. Ahn, I.W.Kim and S.I.Woo "Phase transition in $\text{ABi}_4\text{Ti}_4\text{O}_{15}$ (A=Ca, Sr, Ba) Aurivillius oxides prepared through a soft chemical route", J. Appl. Phys; 105, 024105 (2009).
31. S.K.Rout, A.Hussian, E.Sinha, C.W. Ahn and I.W.Kim "Electrical anisotropy in the hot forged $\text{CaBi}_4\text{Ti}_4\text{O}_{15}$ ceramics", Solid State Science; 11, 1144-1149 (2009).
32. T. Badapanda, S.K.Rout, S.Panigrahi, T.P.Sinha "Phase formation and Dielectric study of Bi doped $\text{BaTi}_{0.75}\text{Zr}_{0.25}\text{O}_3$ ceramic", Current Applied Physics; 9, 727-731 (2009).
33. S.K.Rout, E.Sinha, A. Hussian, P.K.Barhai and I.W.Kim, Electrical anisotropy of $\text{Sr Bi}_4\text{Ti}_4\text{O}_{15}$ grains processed by hot forging method: A study by impedance spectroscopy", Int. J. Appl. Ceram. Soc (In Press)
34. S.K.Rout, S.Panigrahi, P.K. Barhai and I.W.Kim "Synthesis of $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Ti}_{1-x}\text{Zr}_x)\text{O}_3$ ceramics: Effect of Zr content on room temperature electrical properties", J. Elec. Ceramics(In press)
35. T.Badapanda, S.K.Rout, S.Panigrahi and T.P.Sinha, "Relaxor behaviour of $(\text{Ba}_{0.5}\text{Sr}_{0.5})(\text{Ti}_{0.6}\text{Zr}_{0.4})\text{O}_3$ ceramics", Bull. Mater. Sci.; 31, 1-5 (2008).
36. E. Sinha, S.K.Rout, and P.K.Barhai, "Study of the structural and thermal properties of plasma treated jute fibre", Applied Physics A: Mat. Sc. Proces; 92, 283-290 (2008).
37. E. Sinha, and S.K.Rout, "Effect of neutron irradiation on structural, thermal and mechanical properties of jute fibre". J. Appl. Poly. Sc; 110, 413-423 (2008).
38. T. Badapanda, S.K.Rout, S. Panigrahi, E. Sinha, and T.P. Sinha "Ferroelectric phase transition of $\text{Ba}_{1-x}\text{Sr}_x\text{Ti}_{0.6}\text{Zr}_{0.4}\text{O}_3$ ceramics", Phasetransitions; 81, 897-906 (2008).

39. E. Sinha and S.K. Rout, "Influence of fibre-surface treatment on structural, thermal and mechanical properties of jute". J. Mat. Sc.; 43, 2590-2601 (2008).
40. Naveen V. Kulkarni, Soumen Karmakar, Indrani Banerjee, S.N. Sahasrabudhe, A.K. Das, S.V. Bhoraskar, "Growth of nano-particles of Al_2O_3 , AlN and iron oxide with different crystalline phases in a thermal plasma reactor" Materials Research Bulletin(In press).
41. Harshada Nagar, Naveen V. Kulkarni, Soumen Karmakar, B. Sahoo, I. Banerjee, P.S. Chaudhari, R. Pasricha, A.K. Das, S.V. Bhoraskar, S.K. Date, W.Keune "Mössbauer spectroscopic investigations of nanophase iron oxides synthesized by thermal plasma route" Materials Characterization; 59, 1215-1220 (2008).
42. I. Banerjee, N V Kulkarni, S Karmakar, A B. Nawale, V L. Mathe, S V Bhoraskar, A K Das "Effect of ambient pressure on the crystalline phase of nano TiO_2 particles synthesized by dc thermal transferred arc plasma reactor", J. Nanoparticle Research(In press).
43. I. Banerjee, N.V.Kulkarni, S.Karmakar, S. V. Bhoraskar and A. K. Das "Spectroscopic study of oxidation of nano aluminium particles under traces of oxygen in the ambience" Plasma Sources Science and Technology(In press).
44. J. K. Anthony, H. C. Kim, H. W. Lee, S. K. Mahapatra, H. M. Lee, C. K. Kim, K. Kim, H. Lim and F. Rotermund, Particle size-dependent giant nonlinear absorption in nanostructured Ni-Ti alloys OPTICS EXPRESS; 16, 11193-11202 (2008)
45. Hae-Min Lee, Santosh K. Mahapatra, John Kiran Anthony, Fabian Rotermund and Chang-Koo Kim, Effect of the titanium ion concentration on electrodeposition of nanostructured TiNi films, Journal of Materials Science; 44, 3731-3735 (2009).
46. S. Modak, S. Karan, S. K. Roy, S. Mukherjee, D. Das and P.K. Chakraborty, Preparation and characterizations of SiO_2 -coated nanoparticles of $\text{Mn}_{0.4}\text{Zn}_{0.6}\text{Fe}_2\text{O}_4$. J. Magn Magn Mater.; 321 169-174 (2009).
47. S. V. Kumar, S. Mukherjee, J. B. M. Krishna, D. Das, A. Saha, Spectroscopic investigation of iron salts doped polyaniline, J. Appl. Polymer Sc(In press).
48. R. K. Choubey, R. Trivedi, M. Das, P. K. Sen, P. Sen, S. Kar, K. S. Bartwal and R. A. Ganeev "Experimental Study of Nonlinear refraction and Absorption in Mg:LiNbO_3 Crystals" Journal of Crystal Growth 311, 2597 (2009).

National:

1. L. Joshi, S. Keshri, and N. Rama, "Existence of Griffith Phase in $\text{La}_{0.67}\text{Ca}_{0.33}\text{Mn}_{0.93}\text{Fe}_{0.07}\text{O}_3$ ", Journal of Alloys and compounds; (In Press).
2. S. Keshri and V. Dayal "Structural and electrical transport properties of nanosized $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ sample synthesized by a simple low-cost novel route", Pramana; 70 697-704, (2008).
3. Hasina Khatun, Alok Mishra, Mahesh Kumar, Unit N. Pal, A. K. Sharma, P. K. Barhai. Study of filamentary behavior in a coaxial dielectric barrier discharge lamp. Indian Journal of Pure & Applied Physics, NISC & IR, 46, 2034, (2008)

International Conferences:

1. P. K. Barhai, Neelam Kumari, I. Banerjee, S.K. Mahapatra "Study of the effect of plasma current density on nitrides and oxynitrides titanium thin films prepared by reactive DC magnetron sputtering" The 36th International Conference on Metallurgical Coatings and Thin Films (ICMCTF), San Diego, California, USA, April 27-May 01, 2009.

2. P K Barhai, Neelam Jha, I Banerjee, S K Pabi, S K Mahapatra "Study of the effect of plasma current density on nitrides and oxynitrides titanium thin films prepared by reactive DC Magnetron Sputtering" The 36th International Conference on Metallurgical Coatings and Thin Films (ICMCTF), San Diego, California, USA, April 27-May 01, 2009.
3. K Mahapatra, Y Namkoug, Y W Kim and C K Kim, Investigation of the Magnetic Properties of Electrodeposited CoWP Films, 213th Electro Chemical Society meeting, Phoenix, Arizona, United States of America, 213, 1192 (2008).
4. H Kwon, S K Mahapatra, B Park, S H Woo, and C K Kim Control of the Electrical and Optical Properties of Plasma Polymerized Fluorocarbon Films, 213th Electro Chemical Society meeting, Phoenix, Arizona, U. S. A., 213, 750, (2008).
5. R. K. Jayasval, H. L. Yadav, P. K. Barhai. Detection of phase-object using dual aperture imaging configuration consisting of compact holographic lenses. International Symposium to Commemorate The 60th Anniversary of the Invention of Holography, University of Nebraska-Lincoln, USA (October 27-29, 2008)

National Conferences:

1. L. Joshi, S. Keshri; Effect of grain boundaries on transport properties of LCMO/BTO composites, has been published in the proceeding of "National Conference on Advanced Materials and Characterization (AMC 2008)" held at VIT University, Vellore-632014 Tamil Nadu, 23-25 July., 2008
2. S. Keshri and L. Joshi, Influence of nano sized paraelectric SrTiO₃ phase in transport properties of La_{0.67}Ca_{0.33}MnO₃ manganite, has been published in the proceeding of "International Conference on Transport and Optical Properties of Nanomaterials", Allahabad University, Allahabad, 05-08 Jan., 2009
3. A. K. Lal, S. K. Sinha, P. K .Barhai, K. G. M. Nair, A. Bhattacharya, and D. C. Kothari, "Improvement in oxidation resistance at elevated temperature after different energies nitrogen ion implantation in IMI 834 titanium alloy", orally presented in twenty second national convention of aerospace engineers & national seminar on Present Status and Technological Challenges of Indian Aerospace Programme, held at BIT Mesra, Ranchi during November 27 – 29, 2008, accepted for publication in Aerospace Engineering Division Journal of the Institution of Engineers (India) Vol 90, (May 2009) 17-20.
4. A. K. Lal, S. K. Sinha, P. K .Barhai, K. G. M. Nair, A. Bhattacharya, and D. C. Kothari, "Improvement in oxidation resistance at elevated temperature after different energies nitrogen ion implantation in IMI 834 titanium alloy", orally presented in twenty second national convention of aerospace engineers & national seminar on Present Status and Technological Challenges of Indian Aerospace Programme, held at BIT Mesra, Ranchi during November 27 – 29, 2008, accepted for publication in Aerospace Engineering Division Journal of the Institution of Engineers (India) Vol 90, (May 2009) 17-20.
5. Deep Shikha, Usha Jha, S. K. Sinha, P. K. Barhai, K. G. M. Nair, S. Das, A. K. Tyagi and D. C. Kothari Effect of nitrogen ion implantation in alumina for orthopedic implant, contributory talk, in the National symposium on Advanced Ceramics and composites, organized by Indian Ceramic Society, Jamshedpur Chapter in conjunction with National Metallurgical Laboratory and NIT Rourkela, Ceramic Engg. Dept. and Tata Steel held on May 7-8, 2009, venue Centre for Excellence Auditorium Jubilee Park Road, Jamshedpur, proceedings p-105-123.
6. S. K. Sinha, A. K. Lal, P. K .Barhai, K. G. M. Nair, R. Ramaseshan, S. Dash and A. K. Tyagi, D. C. Kothari, IMI 834 Ti-alloy for high temperature application: study of mechanical, structural and oxidation resistance after

nitrogen ion implantation at different energies, contributory talk, in the National symposium on Advanced Ceramics and composites, organized by Indian Ceramic Society, Jamshedpur Chapter in conjunction with National Metallurgical Laboratory and NIT Rourkela, Ceramic Engg. Dept. and Tata Steel held on May 7-8, 2009, venue Centre for Excellence Auditorium Jubilee Park Road, Jamshedpur, proceedings p-90-104.

7. I. Banerjee, Neelam Jha, Mukesh Kumar, S K Mahapatra, S K Pabi, P K Barhai "Influence of rf power on the electrical and mechanical properties of CN thin films deposited by reactive RF magnetron sputtering" paper presented in NML Jamshedpur, 2009

Award / Honours Bestowed:

1. Prof. P. K. Barhai has been elected as the President, Plasma Science Society of India (2009-2011).
2. Prof. P. K. Barhai has been appointed member of the Centre for TeleInFrastuktur (CTIF), Academic Advisory Council, Aalborg University, Denmark (2009).
3. Prof. P. K. Barhai acted as the Director in Science and Engineering Research Council (SERC) funded School on Science & Technology of Processing Plasmas, DST, New Delhi from Dec. 15 to 27, 2008
4. Dr. S. K. Rout has been awarded the BOYSCAST fellowship during (2008).
5. Dr. S. K. Mahapatra has been to NCL, PUNE as Visiting scientist.
6. Dr. S. K. Mahapatra was the Coordinator of DST-SERC SCHOOL ON "Science & Technology Of Processing Plasmas" during December 15-27, 2008.
7. Dr. (Mrs) I Banerjee was the Co-coordinator of DST-SERC SCHOOL ON "Science & Technology Of Processing Plasmas" during December 15-27, 2008.

Other information:

1. Dr. P.K.Barhai visited State University of San Diego, California, USA during April 29-30, 2009 for discussion on collaboration in the area of Medical Physics. He also Visited the facilities of Plasma Physics Laboratory, Princeton University Princeton, NJ 08544 and Department of Nanotechnology and had discussion for collaboration in the area of Nano-Biotechnology during May 02-04, 2009.
2. Dr. P.K.Barhai visited University of Duisburg under DST-BMBF Indo-German Bilateral Cooperation in Science & Technology to work on an Indo-German Project entitled "Field Emission Study of Diamond-like Carbon and Nano-Crystalline Diamond Film" during Nov. 3rd to 12th, 2008.
3. Dr. P.K.Barhai visited iplas innovative plasma systems gmbh, Langbaughstr. 10, 53842 TROISDORF, Germany for discussion on collaboration for development of Microwave CVD for producing ultrananocrystalline diamond films.
4. Dr. P.K.Barhai visited University of Wuppertal, Germany for discussion on collaboration for development of Microwave CVD for producing ultrananocrystalline diamond films.
5. Dr. P.K.Barhai visited Karel de Grote-Hogeschool, Department of Industrial Sciences & Technology, International Coordinator, Salesianenlaan 30, 2660 Hoboken, Belgium, for discussion on proposals under "Erasmus Mundus – External Cooperation Window" on November 07, 2008.
6. Dr. P.K.Barhai visited BIT Extension Center at Royal College of Engineering, Ras Al Khaimah, UAE to review Under Graduate Engineering and Post Graduate Programmes during December 18-20, 2008.

7. Dr. P.K.Barhai visited BIT Extension Center at Bahrain to review Under Graduate Engineering and Post Graduate Programmes during December 20-21, 2008.
8. Dr. P.K. Barhai visited BIT Extension Center at Muscat to deliver the convocation address at Waljat Collage of Applied Science, Muscat and to review the Under Graduate Engineering and Post Graduate Programmes during December 22-23, 2008.
9. Dr. S. Konar was a Visiting Fellow in the University of New South Wales @ ADFA, ACT, Canberra, Australia, during 26 May – 16 July, 2009.
10. Dr. S. Konar was invited in the The third Workshop on Advanced Display and Optoelectronics Technology (ADOT), Catholic University of Daegu, South Korea, 8-9 December, 2008. He delivered an invited talk on "Some Features Of Photonic Crystal Fibers With Emphasis To Device Applications"
11. Dr. S. Konar also reviewed research papers from 8 international journals.
12. Dr. S. Medhekar was invited by University of Hartford CT, USA, (Visited during 7th July 2008 to 12th Aug. 2008) to carryout experimentation on the fabricated AOPT and to discuss the fabrication of improved AOPTs based on nonlinear refraction and Mach-Zender Interferometer.
13. Dr. (Mrs) S. Keshri worked as Expert of NCERT, New Delhi for the years 2008 & 2009.
14. Dr. (Mrs) S. Keshri has become co-guide of one Ph.D. student of Universiti Teknologi MARA, Malaysia.
15. Dr. (Mrs) S. Keshri has a scientific collaboration with Dr. V. F. Kradenov, Institute of High Pressure Physics of the Russian Academy of Sciences, Moscow, Russia.

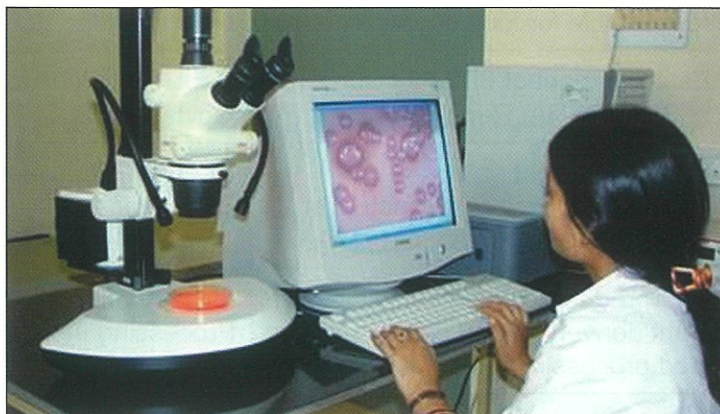
Department of Biotechnology



The Department has received magnificent financial supports from both Union and State Government for establishing state-of-the-art facility for academic and research activities since its inception in the year 2002. Well planned Department building situated in the bank of Suverna Rekha River has attracted almost every visitor of the Institute. The visitors composed of government officials, diplomats, technocrats, scientists and industrialists have recognized the Department as centre of excellence for research based academics

and expressed their desires to participate and propel the scientific and technological endeavor with BIT.

Department's unique culture, in which the staffs & students are treated as assets and stakeholder of the scientific achievement, provides a congenial environment to apply multidimensional approaches to solve the scientific problems. Students of this Department are well placed in company jobs and also admitted in MS and Ph. D. programmes of foreign Institutions.



Four students enrolled in the Ph.D. programme in various fields of biotechnology such as Genomics, Proteomics and Transcriptomics, Industrial biotechnology, product development and biotechnology management in the Department and three candidates have submitted their Ph.D. thesis in this year. The PhD degree was awarded to three scholars. About eighteen students completed their projects on Bioinformatics at BTISnet Centre (DBT, GOI, New Delhi) of the Department. Department has taken lead to provide academic and scientific support to various institutions like NITs and Universities for setting up academic and research facility.

Infrastructure added:

List of instruments procured:

1. UPLC
2. ICP-OES
3. UV / Visible Spectrometer with Peltier Control System
4. DNA Thermocycler
5. Trinocular Inverted Microscope
6. Refrigerated Table-Top Centrifuge
7. Biophotometer
8. Orbital Shaking incubator above ambient
9. Cooling shaker cum incubator
10. Cooling shaker cum incubator with illumination
11. Quick Freezers -200C with stabilizer
12. Soxlet Apparatus
13. Imaging System
14. Hydroshear
15. Microwave Digestion System
16. Autoclave

Programmes offered:

1. B. E. (Biotechnology)
2. M. Sc. (Bioinformatics)

Sponsored Projects:

Projects Ongoing

Project Title	Funding Agency	Date of sanction	Sanctioned Amount	Duration of project
Development of probes for early detection of microorganisms responsible for food spoilage	The Ministry of Food Processing Industries, Govt. of India	45/MFPI/ R&D/ 2000/254 Dt. 29.03.2005	80.00 lakhs	2 years
Establishment of BTISNet Sub DIC at BIT MESRA, Ranchi	Dept. of Biotechnology, Govt. of India.	February 2004 BT/BI/04/065/04	46.20 lakhs	5 years
Analysis of host pathogen interaction in leaf rust infection of wheat: A Transcriptomic Approach	Dept. of Biotechnology, Govt. of India.	Oct 2008 BT/PR6037/ AGR/02/308/05	16.05 lakhs	3 years
Overproduction of anthocyanin, the plant derived natural colourant, for food processing industries	Ministry of Food Processing Industries, Govt. of India	47/FMPI/ R&D/2006 Dt. 04.02.2008	45.00 lakhs	3 years

Projects Sanctioned:

Project Title	Funding Agency	Date of sanction	Sanctioned Amount	Duration of project
Study of antioxidative and DNA protective properties of Anthocyanins	UGC (Major Research Projects Scheme)	31-1 (JH) SR Dt. 10.01.2009	15.13 lakhs	3 years
Morphological, biochemical and molecular diversity analysis of industrially important Indian lac insects and their endosymbionts	NAIP, ICAR, GOI, New Delhi	NAIP/Comp-4/ C3007/ 2008-09 Dt. 10.01.2009	296.78 Lakhs (BIT Share 66.50 Lakhs)	3 years

Seminar / Conferences / Short Term Courses conducted by the Department:

1. Recent Advances in Nanotechnology- State of the Art, 14th- 15th June 2008
2. National workshop on Structural Bioinformatics, 8th -13th September 2008

Seminar / Conferences / Short Term Courses attended by the faculty:

1. All faculties of the Department attended the workshop on effective teaching, organized by TEQIP, BIT Mesra
2. Dr. A. S. Vidyarthi, Dr. K. Mukhopadhyay and Dr. A. Sachan attended the workshop on Research and Development, organized by TEQIP, BIT Mesra, Aug 18-19, 2008
3. Dr. D. M. Pandey attended the Internal Training on Nutrient Manager for Rice, at Burma Room, Training Center, International Rice Research Institute, Los Banos, Philippines, October 9, 2008

4. Dr. S. K. Jha attended an international workshop on "Working with Human genome", organized by HUGO and Sanger Institute, U.K at CCMB Hyderabad, Oct 01-03, 2008.
5. Dr. R. Bandopadhyay attended the International Plant and Animal Genome XVII Conference, organized by Town & Country Convention Center San Diego, California, Jan 10-14, 2009.
6. Dr. H. R. Singh attended an International conference on Novel Updates in Reproductive Biology and Comparative Endocrinology, organized by University of Hyderabad, Hyderabad, Jan 19-21, 2009
7. Dr. D. M. Pandey attended conference on Plant Abiotic Tolerance, International Congress, Vienna, Austria, 8-11 February, 2009.

Publications :

International Journals:

1. I. Haque, R. Bandopadhyay and K. Mukhopadhyay (2008) "An optimized protocol for fast genomic DNA isolation from high secondary metabolites and gum containing plants" Asian Journal of Plant Sciences, 7(3): 304-308. DOI: 10.3923/ajps.2008.304.308
2. S. Shrivastava, P. Shukla and K. Mukhopadhyay (2008) "Correlative characterization of changes in hyphal morphology during xylanase production in submerged culture by *Thermomyces lanuginosus* SS-8" Internet Journal of Microbiology, 4(2).
3. P. Shukla, D. Garai, Mohd. Zafar, K. Gupta and S. Shrivastava (2008) "Process Parameters Optimization for Lipase Production by *Rhizopus Oryzae* Kg-10 under Submerged Fermentation using Response Surface Methodology" Journal of Applied Sciences in Environmental Sanitation, 2(3): 93-103.
4. D. M. Pandey, U-D Yeo (2008) "Stress-induced degradation of D1 protein and its photoprotection by DCPIP in isolated thylakoid membranes of barley leaf" *Biologia Plantarum*, 52: 291-298.
5. Gee-Suck Eu, Byung Yeoup Chung, Rajib Bandopadhyay, Nam-Hee Yoo, Dong-Geun Choi, Song Joong Yun (2008). "Phylogenetic Relationships of *Rubus* Species Revealed by Randomly Amplified Polymorphic DNA Markers" *J. Crop Sci. Biotech.* 11 (1): 39 - 44.
6. D. Prasad and A. S. Vidyarthi (2009). "DNA based methods used for characterization and detection of food borne bacterial pathogens with special consideration to recent rapid methods" *African Journal of Biotechnology* 8(9): 1768-1775.
7. D. M. Pandey, I Choi, U-D Yeo (2009) "Photosystem 2-activity and thylakoid membrane polypeptides of in vitro cultured chrysanthemum as affected by NaCl" *Biologia Plantarum*, 53: 329-333.
8. V. K. Nigam, A. K. Khandelwal, R. K. Gothwal, M. K. Mohan, B. Choudhury, A. S. Vidyarthi, and P. Ghosh (2009) "Nitrilase-catalysed conversion of acrylonitrile by free and immobilized cells of *Streptomyces* sp" *Journal of Biosciences*, 34: 21-26.
9. S. Ganguly, A. Kumar and R. Chandra (2009) "Synthesis and antifungal evaluation of some 1- substituted azoles" *Pharmbit (An International Journal)- XVIII(2)*: 105-107.

National Journals:

1. P. Shukla, S. Dutta, and N. Kango (2008) "Isolation of Actinomycetes from Various Soil Samples of Ranchi District (Jharkhand) and Studies on their Antimicrobial Activities" *Hindustan Antibiotics Bulletin, Official Journal of HAL, Govt of India*, (49-50): 5-9.

International conferences:

1. Kumar, A. Barik, A. S. Vidyarthi, D. M. Pandey: "In Silico Prediction and Identification of Anoxia Responsive Single Exon Genes in Rice (*Oryza sativa* L.)" 6th International Symposium on Rice Functional Genomics at Jeju, South Korea, Nov 10-12, 2008.
2. A. Kumar, A. Barik, A. S. Vidyarthi, D. M. Pandey: "In Silico Prediction and Identification of Anoxia Responsive Single Exon Genes in Rice (*Oryza sativa* L.)" In: Plant Abiotic Stress Tolerance Congress at Campus Atles AKH, Vienna, Austria, Feb 8-11, 2009.

Publications: National conferences:

1. A. K. Khandelwal, V. K. Nigam, A. S. Vidyarthi and P. Ghosh: "Studies on the production of nitrilase from a new thermophilic isolate" Proceedings of International Conference on Molecular Biology & Biotechnology Organised by Banasthali University, Rajasthan, October 19-21, 2008.

Award / Honours Bestowed:

1. Dr. R. Bandopadhyay awarded with Boysscast Research Fellowship for the year 2007-08 from DST, Govt. of India for Research work at University of Georgia, USA
2. Dr. P. Shukla awarded with NRF-DUT Post doctoral fellowship to Visit Durban, South Africa
3. Dr Dev Mani Pandey awarded with Post Doctoral Fellow to visit International Rice Research Institute, Phillippines
4. Mr Raju Poddar awarded with Research Associate from Div. of Microelectronics School of EEE, Nayang Technological University, Singapore.

Students Activities:

BIOTS: A Biotechnology Society started in the Department by students, faculty and staff members, conducted "PRARAMBH '08" which was a major success

Mr Prakhar Goel and Mr Akhil Ranjan (B. E. 2007 Batch) participated in, Anveshan: Student Research Convention, organized by Association of Indian Universities and declared winners (2nd Position) in East Zone final.

Rohit Raghavan (B. E. 2006 Batch)

- Member of winning Cricket team in Chetan-Devraj Memorial Inter- college cricket tournament '09
- Member of Football team which came 3rd in Inter-university football tournament at ISM, Dhanbad
- Member of winning Cricket team in inter-hostel cricket tournament '09

Shashiraj Singh (B. E. 2006 Batch)

- Secured 1st position in Razzmatazz '08 solo dance competition
- Secured 7th position out of 45 bands at IIT Kharagpur 'WILDFIRE ROUNDS' in SPRING FEST '09
- Winner of FIFA 07 gaming competition at Unnayan '09

Rahul Raja (B. E. 2006 Batch)

- Winner of Badminton Championship '08 (doubles) in inter-hostel tournament
- Runner up in Table Tennis inter-hostel tournament '08

Annu Singh (B. E. 2006 Batch)

- Secured 1st position in 100 M race at the 23rd Annual Sports Meet '09, conducted in BIT, Mesra

Rakesh Sharma (B. E. 2006 Batch)

- Member of team that secured 2nd position in SARGAM (eastern group song competition) conducted at IIT Kharagpur SPRING FEST '09

Sharma Shimme (B. E. 2006 Batch)

- Secured 1st position in Carom competition '09 in doubles conducted by BIT, Mesra

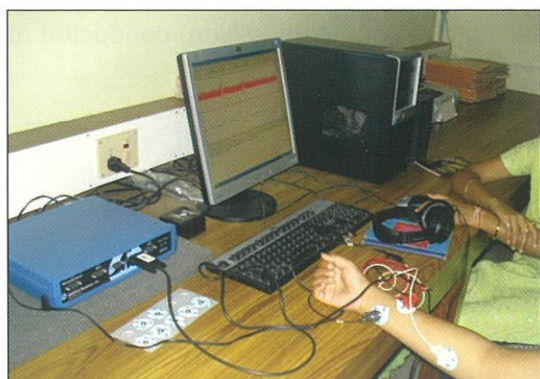
Tapan Kumar Shit (B. E. 2006 Batch)

- Secured 1st position in Carom in PINNACLE '08 conducted by BIT, Mesra

Other information:

1. Dr. A. S. Vidyarthi, Professor and Head, Department of Biotechnology of this institute is serving as member of Biotechnology Advisory Committee, Jharkhand constituted by Government of Jharkhand, Ranchi.
2. Dr. H. R. Singh, Assoc. Lecturer, Department of Biotechnology of this institute is serving as member of State Board of Biotechnology Committee, Jharkhand constituted by Government of Jharkhand, Ranchi.
3. Dr. M. Kumar, Sr. Lecturer, Department of Biotechnology of this institute has been nominated as member of Board of Studies, Department of Biotechnology, Jamshedpur Women's College (Autonomous College), Jamshedpur.
4. Dr. D. M. Pandey and his students developed RICE SINGLE EXON GENE DATABASE that can be accessed at <http://bitmesra.ac.in/seg/home.asp>.
5. Dr. A. S. Vidyarthi was invited as resource person in the following:
 - i. Recombinant Proteins: Present Status, Challenges & Opportunities. Advances in Targeted Drug Delivery System, BIT, Mesra, June 08, 2009
 - ii. Herbal Drug Development: Trends and Opportunities. AICTE sponsored QIP on Emerging Trends in Herbal Drug Technology, BIT, Mesra, May 22, 2009
 - iii. Bioinformatics Approach towards Designing a Novel Drug. AICTE sponsored QIP on Drug Discovery Approaches, BIT, Mesra, May 05, 2009.
 - iv. Recombinant Proteins: Present Status & Future Prospects. QIP for teachers, HBTI, Kanpur, March 15, 2009
 - v. Journey towards dry lab through wet lab: Structural Bioinformatics and Biopharmaceuticals Design. National Workshop on Structural Bioinformatics, BIT, Mesra, Sept 08-13, 2008

Department of Biomedical Instrumentation



Current day technology is quite extensive in electronic equipment with processor control in all life saving equipment. Thus, a definite need of the trained workforce was felt in this area by the clinicians and technologists. To fulfill the gap in this area, this institute has started a postgraduate programme in Biomedical Instrumentation that aims at imparting in-depth knowledge to students with live exposure to the use of sophisticated medical equipment. This programme is conducted in collaboration with the B.M. Birla Heart Research Centre, Kolkata, and with assistance from Advanced Diagnostic Centre, Ranchi and Rajendra Institute of Medical

sciences, Ranchi. The major objective of the programme is to impart knowledge of all possible applications of Biomedical Instrumentation, its technology, its use and intelligent operation to assist physicians and surgeons. Apart from the above mentioned medical institutions, the Department has continued interaction with different other hospitals such as Apollo Hospital at Ranchi as well as with Calcutta Medical and Research Institute at Kolkata to develop the technical skill and know how about the modern advanced medical equipment among the students.



The Department has completed govt. funded two research projects during the session 2003-2004 and other three projects are in progress. During the session, a number of research papers have been published as well as communicated in international and national journals. Faculty members of the Department have also started collaborative research works in different areas of Biomedical Engineering. Faculties of the Department of Biomedical Instrumentation are pursuing the ongoing research in the area of Biomedical Signal Processing, Biomedical Instrumentation, Biomedical Modeling, Clinical Decision Making and several other related areas. Emphasis is laid on the application of soft computing tools such as artificial neural network, fuzzy logic, genetic algorithm etc. for the processing, classification and development of expert computerized system for biosignals.

Infrastructure added:

Addition of equipment:

Stereotaxic apparatus	INCO, Ambala	(Rs. 1.5 lacs)
BOD incubator	INCO, Ambala	(Rs. 0.5 lacs)
Elevated plus maze	INCO, Ambala	(Rs. 0.5 lacs)
Microwave workbench (2450MHz)	SICO, Ghaziabad	(Rs. 3.0 lacs)

Programmes offered:

1. M.Sc. (Biomedical Instrumentation)
2. Ph.D.

Projects:**Ongoing projects:**

Sl. No.	Title	Funding agency	Year of Funding	Duration	Amount sanctioned
1.	Effects of low energy non-thermal microwave radiations on brain electrophysiology	AICTE (RPS)	2008	2 years	7.10 lakhs
2.	Voluntary Event Related Brain Signal Classification	UGC (MRP)	2009	3 years	11.478 lakhs
3.	Soft Computing and Phonocardiogram based Automated Detection System for Diagnosis of Heart Valve Diseases	AICTE (RPS)	2009	3 years	6.90 lakhs

Seminar / Conferences / Short Term Courses attended by the faculty:

Sl. No.	Name of the programme	Organizers	Place	Duration	Name of faculty
1.	Research & Development in Engineering Education	Birla Institute of Technology, Mesra	BIT, Mesra	2 days	Dr. B. N. Das Dr. R. K. Sinha Mr. Y. Aggarwal
2.	Effective Teaching	Birla Institute of Technology, Mesra	BIT, Mesra	4 days	Dr. B. N. Das Dr. R. K. Sinha Mr. S. Kumar Mr. Y. Aggarwal Ms. A. Dwivedi
3.	Use of MATLAB Tool Boxes for Real Time Application in Electrical Engineering	Birla Institute of Technology	BIT, Mesra	7 days	Dr. R. K. Sinha Mr. Y. Aggarwal Ms. A. Dwivedi

* One-day workshop arranged at Advanced Diagnostic Center in Imaging Technology exclusively for M.Sc. (BMI) students.

Publications:

- Aggarwal, Y., Karan, B. M., Das, B. N., and Sinha, R. K. (2008) Prediction of heat-illness symptoms with the prediction of human vascular response in hot environment under resting condition, Journal of Medical Systems, 32: 167-176.
- Dwivedi, A., Karan, B. M., Das, B. N. and Sinha, R. K. (2008) Digital-analog hybrid control model for eukaryotic heat shock response illustrating the dynamics of heat shock gene on exposure to thermal stress, Computer Methods and Programs in Biomedicine, 90: 17-24.
- Sinha, R. K., Aggarwal, Y., Upadhyay, P. K., Dwivedi, A., Keshri, A. K. and Das, B. N. (2008) Neural network based evaluation of chronic non-thermal effects of modulated 2450 MHz microwave radiation on electroencephalogram, Annals of Biomedical Engineering, 36: 839-851.
- Sinha, R. K. (2008) Chronic non-thermal exposure of modulated 2450 MHz microwave radiation alters thyroid hormones and behavior of male rats, International Journal of Radiation Biology, 84: 505-513.

5. Sinha, R. K. (2008) Serotonin synthesis inhibition by pre-treatment of p-CPA alters sleep electrophysiology in an animal model of acute and chronic heat stress, *Journal of Thermal Biology*, 33: 261-273.
6. Aggarwal, Y., Karan, B. M., Das, B. N., and Sinha, R. K. (2008) Computer simulation of heat transfer in different tissue layers of body extremities under Heat Stress in deep anesthetic condition, *Journal of Medical Systems*, 32: 283-290.
7. Sinha, R. K. (2008) Artificial neural network and wavelet based automated detection of sleep spindles, REM sleep and wake states, *Journal of Medical Systems*, 32: 291-299.
8. Sinha, R. K. (2008) EEG power spectrum and neural network based sleep-hypnogram analysis for a model of heat stress, *Journal of Clinical Monitoring and Computing*, 22: 261-268.
9. Keshri, A. K., Sinha, R. K., Hatwal, R., and Das, B. N. (2008) Epileptic Spike recognition in Electroencephalogram using Deterministic Finite Automata, *Journal of Medical Systems*, 33: 173-179.
10. Aggarwal, Y., Karan, B. M., Das, B. N., and Sinha, R. K. (2008) An unsupervised neural network to predict the level of heat stress, *Journal of Clinical Monitoring and Computing*, 22: 425-430.
11. Sinha, R. K. and Aggarwal, Y. (2009) Neural Network Detect the Effects of p-CPA Pre-treatment on Brain Electrophysiology in a Rat Model of Focal Brain Injury, *Journal of Clinical Monitoring and Computing*, 23: 105-113.
12. Pal, D., Srinivasulu, A., Pal, B. B., Demesthenous, A., and Das, B. N. (2009) Current conveyor based square/triangular-waveform generator with improved linearity, *IEEE Transactions on Instrumentation and Measurement*, 58: 2174-2180.
13. Sinha, R. K. (2009) Analysis of Age Dependent Effects of Heat Stress on EEG Frequency Components in rats, *Biomedical and Environmental Sciences Journal*, 22: 141-150.
14. Aggarwal, Y., Karan, B. M., Das, B. N., and Sinha, R. K. (Under Review) Mechanistic Electronic Model to Simulate and Predict the Effect of Heat Stress on the Functional Genomics of HO-1 System: Vasodilation, *Computers in Biology and Medicine*.

Award Bestowed:

1. Dr. R. K. Sinha awarded with "Leverhulme Trust Visiting Fellowships" to work in the area of 'Brain-Computer Interface' in University of Ulster, UK, for the period of one year (1st June, 2009-31st May, 2010).

MOU:

1. MOU has been signed with RIMS, Ranchi for one-semester Clinical Internship Project Training Programme for B.Sc. (Medical Lab. Technology) course students.

Department of Civil Engineering

The Department of Civil Engineering at this Institute was established in 1957. To put it simply, the study of Engineering began with Civil Engineering hence it is the oldest among all Branches of engineering. It has all the ingredients for imparting necessary knowledge in providing better quality of life and environment on earth. The range encompasses topics of general nature and of service to mankind. Buildings, Roads and Highways, Railways, Tunnels and Bridges, Dams and Canals, Ports, Docks and Harbours, Airports, Water Supply systems and Drainage works, Tower Structures and Skyscrapers, all fall within its realm. The Civil Engineering discipline offers wide scope to students in terms of promising career opportunities and professional advancement.



Programmes offered:

1. B.E. (Civil)
2. M.E. (Civil) - Soil Mechanics and Foundation Engineering
3. M.E. (Civil) - Structural Engineering

Projects:

Ongoing Projects:

Name of the Teacher	Title of the project	Duration	Funding Agency	Amount (Rupees)
Mrs. Bindhu Lal	Study of Climate changes due to global warming in Jharkhand and a new intelligent model for air pollutant concentration prediction	2 yrs	UGC	1,00,000
Dr. R. R. Sahay	Flood forecasting of Kosi river through ANN	2 yrs	UGC	1,00,000
Dr. R. R. Sahay	Flood modeling of North Bihar rivers using soft computing techniques	2 yrs	AICTE	5,50,000
Dr. Indrajit Roy	Stability study of fly ash embedded in the back-filled dump of Opencast mines of Coal India	Scheduled completion Sept. 10, '09	CMPDI, Ranchi	5,50,000
Dr. Indrajit Roy	Slope Stability Study of Bhurkunda and Tapin mines of CCL	September, 24 th , 2009.	CCL, Ranchi	2,50,000
Dr. Indrajit Roy	Slope Stability Study of Highwall of Tikak Extension, N E Coalfields, Assam for submission to DGMS	October, 15 th , 2009	N E Coalfields Assam	1,50,000
Dr. Indrajit Roy	Slope Stability Study of Sasti mine of WCL	30 th November, 2009	Western Coal fields Nagpur	4,00,000

Projects Sanctioned:

Name of the Teacher	Title of the project	Duration	Funding Agency	Amount (Rupees)
Dr. Indrajit Roy	Development of guidelines for safe dump profile of dragline mines of Coal India. Sanctioning authority – Coal India Limited(CIL) R&D grant for carrying out research on coal related projects at three opencast mining sites	One and half years	CIL, Kolkata	37,00,000

Projects Completed:

Name of the Teacher	Title of the project	Duration	Funding Agency	Amount (Rupees)
Dr. Indrajit Roy	Slope Stability Study of External Dump of Tikak Extn, N. E. Coalfields, Assam accepted by MOEF for environmental clearance	Two months	N E Coalfields Assam	2,70,000
Dr. Indrajit Roy	Slope Stability Study of Slime dam at Joda iron ore mines of Tata Steel	5 months	Tata Steel	1,00,000
Dr. Indrajit Roy	Slope Stability Study of Gevra, Kusmunda, Dipka and Baroud Opencast mines of SECL, accepted by MOEF for environmental clearance after presentation to EAC experts of MOEF, New Delhi	Three months	S.E Coalfields Bilaspur	5,00,000
Dr. Indrajit Roy	Slope Stability Study of Jhingurdah opencast mines of NCL for submission to DGMS	Two months	Northern Coalfields Singrauli	4,00,000

Seminars/Conferences/Short Term Courses conducted by the Department:**Invited lectures delivered by members of the faculty elsewhere:**

Dr. Indrajit Roy delivered lectures on:

1. "Opencast mine planning and slope stability studies" at BIT, Sindri during Nov. 05 to 08, 2008
2. "Slope Stability" at I. S. M., Dhanbad during Oct. 23 & 24, '08

Seminars/Conferences/Short Term Courses attended by the Faculty:

Conference / Seminar	Venue	Date(s)	Participants
Training Program on Finite Element Analysis with ANSYS	B. I. T., Mesra	July 16 – 20, '08	Dr Krishnamurthy Mr. Avijit Burman
Workshop on Effective Teaching	B. I. T., Mesra	July 30 – Aug, 03 '08	Dr. Krishnamurthy Dr. Balram Singh Dr. Anand Kr. Sinha Dr. Arun Kumar Dr. Indrajit Roy Dr. Sudeshna C. Mrs. Bindhu Lal Mr. Birendra K Singh Dr. Siddhartha S. Mr. Umesh C. Sahoo Mr. Koushik Paul

Workshop on R & D in Engg. Education	B. I. T., Mesra		Dr. Krishnamurthy
C F D and Analysis using FLUENT	B. I. T., Mesra		Dr. Krishnamurthy Dr. Rajiv R. Sahay
Earthquake Resistant Design of Buildings	I. I. T., Roorkee	Sept. 1 – 26, 2008	Dr. Arun Kumar Mr. Avijit Burman
Case Histories in Geotechnical Engineering	Missouri University of Science and Technology, USA.	Aug. 11 – 16, '08	Dr. Indrajit Roy
Science of Climate Change for Engineers, Scientists and Policy Makers	B. I. T., Mesra	Sept. 26 – 29, '08	Mrs. Bindhu Lal
Household Water Treatment Techniques	Hindusthan Institute of Science and Technology, Mathura	July 24 – 25, '08	Dr. Rajiv R. Sahay
Water, Environment, Energy and Society	I C A R, Pusa	12 – 16 Jan., 2009	Dr. Rajiv R. Sahay
Natural Hazards - Preparedness and Mitigation	N. I. T., Rourkela	15 – 28 Dec., '08	Mr. Umesh C. Sahoo Mr. Koushik Paul
Management of Environment & Natural Resources	C.I.T., Ranchi	Feb 23-Mar 1, '09	Mr. Koushik Paul
Int. Conf. on Rock Mechanics	B H U I T, Varanasi	Feb., 2009	Dr. Indrajit Roy

Publications:

National Journals:

1. Singh R. K., Singh B. P., Bangali Baboo and Singh Balram "Impact of in situ moisture conservation Practices on soil moisture and growth of Ber and Kusum for sustained Lac production in Jharkhand", Indian Journal of Soil Conservation, Vol 36, No.2, Aug 2008.
2. Som Dutta*, Peeyush Rohela* & Dr. Indrajit Roy "Increasing the Safe Angle of External Dump with the Application of Fly Ash in Sonepur-Bazari Opencast Project India, Minetech, Vol. 29, No. 4, pp 33-36, Oct-Nov 2008 (* Final year Students)
3. Burman A., Reddy B. V. and Maity D. (2008) "Seismic response of concrete gravity dams considering foundation flexibility", Indian Geotechnical Journal, Vol. 38 (2), pp. 187-203.

National Conferences:

1. Sahay R. R. : "Prediction of Runoff from a watershed by water balance method", National Seminar on Household water Treatment Techniques, Mathura, July, 2008

International Conferences:

1. Sahay R. R.: "Optimal storage of a Multi-Reservoir system using combined simulation and genetic Algorithm" International Conference on 'Water, Environment Energy and Society', New Delhi, Jan.2009.
2. Roy Indrajit : "Slope Design Criteria at Quarry batter of Niljai Opencast Coal Mine of WCL " Proc. International Symposium on Rock-Mechanics& Geo-environment in Mining and Allied Industries at BHU-IT, Varanasi, 2009.

3. Roy Indrajit : "Slope Design Criteria at Quarry batter of Niljai Opencast Coal Mine of WCL " Proc. International Symposium on Rock-Mechanics& Geo-environment in Mining and Allied Industries at BHU-IT, Varanasi, 2009.
4. Sahoo U. C., Reddy K. Sudhakar, "Subgrade Strength Characterisation for Low Volume Roads in India", Intl. Conf. on Pavement Engineering, CET, Bhubaneswar, 14-15 Feb, 2009
5. Reddy B. V., Burman A. and Maity D (2008). "Seismic analysis of concrete gravity dams considering foundation flexibility and nonlinearity". 12 th International Conference on International Association For Computer Methods and Advances in Geomechanics (12 IACMAG). 1-6th October. Goa, India. Pp. 2882-2888.
6. Burman, A., Chakravarty, D., Maity, D (2008) "Influence of Material Nonlinearity of Foundation in the Dam Foundation Interaction Analysis" Paper accepted in 14WCEE held in October 12-17, Beijing, China.

Students Activities:

1. Pallav Agrawal (Roll 1152 / 06) and Priyanka Priyadarshini (Roll 1191/06) received First prize in the Paper presentation Section, CivERE, The Fourth National Conference for Civil and Environmental Engineering Students, organized at IIT, Kanpur, 20-22 Feb 2009.
2. Arjun Goyal and Rameez Kakodker (ECE) : for bringing out a documentary on Global Warming "The End Begins", awarded Best Documentary and Second overall in Frames '09 organised by Photographic Society during BITOTSAV – 09.

Other information:

A. Educational Trips for Students:

Visits to Construction Sites – Session 2008-09 (Semesters VI and VIII)

No. of Students: 90 Date of Trip : February, 2009 Conducted by : Dr. C. K. Singh

Accompanying Teachers: Mr. Birendra Kr. Singh and Mr. Umesh C. Sahoo

Places visited and observations made:

1. Khelgaon Games Village, Hotwar, Ranchi: Stadium, Roads, Swimming Pool, Office Complex
2. Namkom, Ranchi: Bridge under construction over River Swarnarekha – Foundation work
3. Doranda – Namkom Road: Major Bridge over River Swarnarekha under construction
4. Hinoo: Airport Approach Road – widening to four lanes and strengthening
5. National Highway (NH – 35): Bridge under construction on Ranchi – Daltonganj Road
6. Institution of Engineers Complex, Doranda: Familiarising Students with the Professional Body.

Department of Computer Science



The Department of CSE was established in the year 1983. Now it is recognized as one of the leading Departments in the country with infrastructure and facilities to match the very best in the country. The Department remains committed towards its mission which is twofold. One is to provide students with the fundamental knowledge and problem solving skills in Computer Science required for a fulfilling career. The other goal is to create and disseminate knowledge to improve Computer Science research, education and practice.

The Department is vibrant and growing and has changed substantially in recent years in many ways. The number of members of the faculty has significantly increased in the last four years. In the year 1999, the Ministry of HRD in collaboration with CDAC, gifted the Department with a Super Computer PARAM. 10000, as an acknowledgment of the Departments' untiring quest for excellence. The Super Computer holds a place of pride in the Department lending its support to numerous Departmental and inter-Departmental research activities. This was followed by a massive upgradation of the Departmental infrastructure in an effort to keep pace with the rapidly changing needs of the industry.



Recognition has also come in the form of international collaborations with University of New Brunswick, Canada, while more collaboration are expected notably with the University of Melbourne in the Field of Grid-Computing and University of Manitoba, Winnipeg Canada in the field of Intelligent Systems, Rough Sets and Image processing.

Programmes offered:

As of now the Department offers the following programmes

- Undergraduate (UG) Programs
B.E. (4 years) in Computer Science
- Postgraduate (PG) Programs
M.E. (2 years) in Software Engineering
M.Tech (2 years) in Computer Science
Ph.D.

Ongoing Project:

Sl. No.	Investigators	Project Title	Funding Agency	Date of Sanction	Sanctioned Amount in Lacs	Duration in Years
1	Mr.K.K Patnaik	GRID based Virtual Screening of Tuberculosis	AICTE	April 2008	6.5	2

Publications:

International Journals:

1. Mustafi A, Verma N, Panigrahi S.C., "Face Recognition using Local Binary Patterns and Parallel Processing", CIIT International Journal, of Biometrics and Bioinformatics, May 2009.
2. K.S.Patnaik, J.F.Peters, S.Anwar, "Influence of Temperature on Swarmbots that Learn" International Journal of Cybernetics and Systems. Vol 39,page 502-519,2008.
3. K.S Patnaik, S.Anwar, "Q-Learning in Context of Approximation Spaces", International Journal of Contemporary Engg Sciences.Vol .1, page 41-49,2008.
4. K.S.Patnaik,S.Gupta, "Enhancing Performance of Face Recognition System by Using Near Set Approach for Selecting Facial Features", Journal of Theoretical and Applied Information Technology, Vol .4 page 5-9,2008.
5. K.K Senapati and Rahul verma "An arch type match algorithm using parser based search and production rules",CIIT International Journal on Artificial Intelligence and Machine learning, May 2009
6. Sanchita Paul., Mangesh. K. Rajak., G. Sahoo., "A Fast Exact Pattern Matching Algorithm for Biological Sequences", Journal of Computational Intelligence in Bioinformatics (JCIB). (Accepted and in press)
7. Sanchita Paul, Swaraj Bharti, Abhimanyu. K. Singh, G. Sahoo., "DNA Nanorobot: Movement Control Algorithm for Cancer Cell Detection Using Fuzzy Logic Rules", CiiT International Journal of Fuzzy Systems, April 2009.
8. Sanchita Paul., G. Sahoo., " Simplification of Boolean Expression using DNA Computing", Advances in Computational Sciences and Technology (ACST). (in press)
9. Sanchita Paul., Anirban Desarkar, "Solution to the 0-1 knapsack problem based on DNA Computing", Journal of Theoretical and Applied Information Technology, Vol. 4 No. 6, pp-526-529, 2008.
10. Sanchita Paul., Santosh. K. Mishra, "An efficient algorithm for multiplication based on DNA Computing", Journal of Theoretical and Applied Information Technology, Vol. 4 No. 7, pp-554-559, 2008.
11. Sanchita Paul., G. Sahoo., "A DNA Computing Model to Solve 0-1 Integer pogramming Problem", Applied Mathematical Sciences, Vol. 2, 2008, no. 59, 2921 – 29.
12. Sanchita Paul., G. Sahoo., "An efficient DNA encoding method for solving 0-1 knapsack problem", Advances in Applied Mathematical Analysis (AAMA). (in press)

International Conferences:

1. Abhijit Mustafi, P. K. Mahanti, "An Optimal Algorithm for Contrast Enhancement of Dark Images using Genetic Algorithms" ICIS 2009, ICIS, Shanghai, 2009
2. Dheeresh K Mallick, Keny Thomas Lucas and Prasanta K Jana, "Parallel Algorithm for Conflict Graph on OTIS-Triangular Array", Lecture Notes in Computer Science (Springer), Vol. 3904, pp 274-279, 2008.

3. Dheeresh K Mallick and Prsanta K Jana, "Parallel Prefix on Mesh of Trees and OTIS Mesh of Trees", Proc. of Intl. Conf. on Parallel and Distributed Processing Techniques & Applications, July 14-17 2008, Las Vegas, Nevada, USA.
4. Dheeresh K Mallick and Prsanta K Jana, "Matrix Multiplication on OTIS k-Ary 2-cube Network", Proc. of Intl. Conf. on Parallel and Distributed Processing Techniques & Applications, July 14-17 2008, Las Vegas, Nevada, USA.
5. I.Mukherjee, S. Banerjee, A. Chatterjee, "E-Mail Analysis based on Text Mining", International Conference on Innovative Technologies, CIT' 2009.
6. I. Mukherjee, S. Banerjee, and P.K. Mahanti, "Cloud Computing Initiative using Modified Ant Colony Framework", International Conference on Human Computer Interaction, Singapore, 2009.
7. I. Mukherjee, S. Banerjee, and P.K. Mahanti, "Analyzing the Impact of Information Re-Retrieval Using Fuzzy Logic", Proceedings of the 11th international workshop on computer science and information technologies CSIT'2009, Crete, Greece, 2009.
8. K.S Patnaik, G.Sahoo, S.Anwar, "Temperature Variation Near Actor Learning for Swarms that Learn," IEEE Region 10 Colloquim and Third International Conference on Industrial and Information Systems, ICIS 2008, pp-96, 8-10 Dec, 2008, IIT, Kharagpur.
9. K.S.Patnaik, Anwar, S, "Actor critic learning: A near set approach" The Sixth Int. Conf. on Rough Sets and Current Trends in Computing (RSCTC 2008), Akron, Ohio, USA, 23-25 Oct. 2008, LNAI, Springer.
10. K.K Senapati and A. Sahoo "priority based multidimensional data classification" International conference on IT, Haldia Institute of Technology March 2009.
11. K.K.Senapati, S Sonbhdra, "Bio Informatics: A Bridge between two Domain", International Conference on IT, Dept of Science and Technology, Kathmandu, Nepal, 2008.

National Conferences:

1. Amritanjali, Chandrakala, "Distributed Denial of Services attack detection in IEEE 802.11i wireless LAN", Challenges & Opportunities in Information Technology, Dept. of Comp. Sc. & Engg., RIMT, Mandi Gobindgarh, 2008.
2. Amritanjali, G.Sahoo, "Designing parallel algorithms for sorting by reversals on OMULT Interconnection network", CECET, Dept. of Comp. Engg. and Dept. of Electronics & Communication, G.B. Pant University of Agriculture and Technology, Pantnagar, 2009.
3. I.Mukherjee, S. Banerjee, "Feature Selection and Rule Induction using Genetic Algorithm", Proceeding of National Seminar on Recent Advance of Information Technology (RAIT-2009 IISM Dhanbad).

Seminars/Conferences/Symposiums/Short Term courses attended by faculty members.

Workshop attended:

Name of the Programme	Organizers	Place	Duration	Name of the Faculty
National Workshop on Structural Bioinformatics	BIT Mesra	BIT, Mesra	8-13th Sept 2008	Mrs Amritanjali and Ms.Sanchita Paul

Use of MATLAB TOOLBOX for real time applications in Electrical Engg	BIT Mesra	BIT Mesra	16-22th Jun2008	Mrs.I.Snigdha and Mr.K.S Patnaik
Analysis of Algorithms	Indo US Collaboration for Engineering Education	Mysore	28-4th Jul,2008	Ms.Shruti Garg

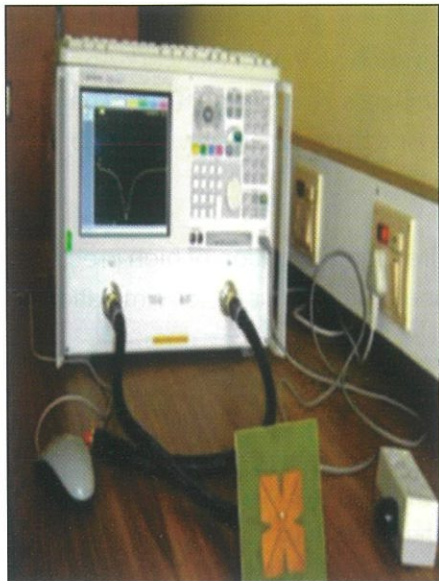
Short-term Course attended:

Name of the Course	Organizers	Place	Duration	Name of the Faculty
Multiobjective Optimization using Evolutionary Algorithms	IIITM, Gwalior	IIITM, Gwalior	1-4th Dec 2008	Ms.Shruti Garg

Student Activities:

1. Shwet Shashank, L.Sushant Srivastava, Gyanendra Kumar Singh (6th sem, BE, Comp.Sc.) Ranked in 31st position in ACM, International Collegiate Programming Contest, Amrita Vishwa Vidyapeetham University. Also Finalists in ACM, International Collegiate Programming Contest, IIT Kanpur
2. Nirav Nirmal Baid, Ankit Kumar, Nidhal, (6th sem, BE, Comp.Sc.) Ranked in 33rd position in ACM, International Collegiate Programming Contest, Amrita Vishwa Vidyapeetham University.
3. Rahul Ramdass and Bidu Prakash Das (B.E, 8th Sem Comp.Sc.) got the Best TCS project 2008 award and Uday Jhunjunwala (B.E, 8th Sem, Comp.Sc.) Best student award by TCS.

Department of Electronics and Communication Engineering



The Department has modern laboratories and support facilities in all major areas of Electronics and Communication. These include:

Analog and Digital Communication, Digital Electronics and Integrated Circuits, Circuit Simulation, Microprocessor, Fiber Optics Communication, Instrumentation, VLSI Design, Wireless Networking, Microwave, Advanced Communication, Antenna Design, Microwave Integrated Circuit (MIC) and Computational Electromagnetics.

The Communication laboratories are well equipped with Analog Communication kits (like Amplitude Modulation & Demodulation, Frequency modulation & Demodulation, Phase Modulation & Demodulation, and Noise Generator) and Digital Communication Kits (like PCM, DM, PPM, ADM, ASK, FSK, PSK & QAM). Commsim Software is also available in the laboratory for designing of wired, wireless and mobile communication systems.

The Fiber Optic Laboratory is well-equipped with Optical to Electrical Converters, Electrical to Optical converters, He-Ne Laser Source, Argon-ion Laser Source, Tunable Laser Source, Optical Spectrum Analyzer, Optical Time Domain Reflectometer, LED and LD Sources, Monochromator, various types of Photo-Detectors, Couplers, Multiplexers, CCD camera, BSO crystal, Vibration Isolation Table, Newport Kit, Falcon Kits and various types of fibers. This laboratory also has Beam Pro software, which is useful for designing various Optical Components, Optical Fibers, Optical Switching, and Fiber Bragg Grating etc. Several research projects are ongoing with the existing facilities.



Department also has an Advanced Instrumentation Lab which includes Data Acquisition Cards (DAC) from National Instruments and Lab View software for real time calibration and measurement experiments. This lab also has acquired a new PLC of Mitsubishi make.

The Department also has a well-equipped VLSI Design lab. Primary area of research in VLSI lab consists of full-custom Application Specific Integrated Circuits (ASIC) and processors involving analog, digital and mixed signal processing. For this purpose the Cadence software is available which provides full custom with front end and back end facility. Also the Laboratory is equipped with other software like Active HDL, Synplify Pro, Xilinx ISE and Model Sim. There is provision for downloading the VHDL code to FPGA / CPLD Kits namely Vertex, Spartan etc., which will help students to gain hands-on experience in the area of VLSI design.

The Advanced Communication Lab is equipped with GPS Trainer Kit, Satellite Communication Trainer Kit, Mobile Communication Trainer Kit and CDMA Trainer Kit. This Laboratory also has Scalar Network Analyzer with Plotter (22 GHz), Spectrum Analyzer spanning 9 KHz to 22GHz range, Sweep Oscillators for 5.9 to 12.4 GHz, 22GHz Microwave Frequency Counter, Pattern Generator and Sweamer Generator.

The Antenna Lab is equipped with most sophisticated and modern equipments such as Vector Network Analyzer (N5230A, 10 MHz - 20 GHz), R & S Signal Generator (SMR20, 1 GHz - 20 GHz), R & S Spectrum Analyzer (FSP, 9 KHz - 30 GHz), MIC Kit, Antenna measurement facility and a small Anechoic Chamber. The Lab also has design softwares such as IE3D, Fidelity, and MD Spice.

The MIC Fabrication Lab has Ultra Violet exposure, Ovens, Spinners, all required for fabrication of high precision microwave integrated circuits. The laboratory is also supplemented with Sonnet software used for simulation of all kinds of microwave circuits.

The Department has also a well-structured Wireless Networking Lab. The main areas of research in this lab include Wireless LAN MAC protocols, Mobile Adhoc Network, Wireless Sensor Network, QoS support for mobile host, Mobile IP, Wireless PAN, WiMAX, Wireless TCP, Home Networking, 4G mobile systems, Voice IP etc. The popular network simulator NS 2.29/2.30 has been installed. Networked Licensed version (11 users) of System Vue software is also being used for design and analysis of Wireless Communication system. The lab is also equipped with IP Telephony set up and GSM Test system.

The revised syllabuses of the P.G. courses have been discussed and approved by the board of studies and implemented with the MO- 2009 session.

This year the Department organized two seminars. 24th National Convention of Electronics and Telecommunication Engineers and National Seminar on Recent Advances in Wireless and Mobile Telecommunications (RAWMTEL-08) was organized during 18-19 October 2008 in association with The Institution of Engineers (INDIA). National Seminar on Devices, Circuits and Communication –08 (NASDAC2-08) was organized during 6-7 November 2008.

Additional Research Projects:

1. "Embedded Fiber Optic Sensor based Instrumentation System for Structural Health Monitoring", sanctioned by VSSC, ISRO, Jan.2009. Principal Investigator: Dr. S. K. Ghorai, Co-investigators: Dr. R. K. Lal and Sri S. Sengupta, of amount: Rs. 15.00 Lakhs, Duration: 2 Years
2. "Microstrip Antenna for Wearable Applications", sanctioned by AICTE, May 2009, Principal Investigator: Dr. Vibha Rani Gupta, Co-investigators: Prof. (Dr). Nisha Gupta, amount: Rs. 6.00 Lakhs, Duration: 3 Years

Awards / Honours Bestowed:

Dr. S. Pal's High Temperature superconducting band-stop filter have been installed (Green Bank Telescope) in USA and this news is published in National Radio Astronomy observatory (N.R.A.O.) website

URL: http://www.nrao.edu/news/newsletter/enews_1_7.shtml#notebook

Ongoing Projects

Sl. No.	Principal Investigator	Project Title	Funding Agency	Date of Sanction	Sanctioned Amount	Duration in Year	Expected time for completion
1.	Dr. Nisha Gupta	Improvement of S & T Infrastructure in Universities and Higher Educational Institutions (FIST)"	Dept. of Science & Technology	2004	Rs. 35 Lacs	5 Years	2009
2.	Prof. S.C.Goel	Special Assistance Programme (SAP) at the level of Department Research Support (DRS)	UGC, New Delhi	2004	Rs. 31.50 Lacs. + 20 Lacs	5 Years	2009
3.	Dr. S. Srivastava	Design of Active Microstrip Antenna for Wireless Communication	DST, SERC Fast Track Scheme for Young Scientists	2006	8.60 Lacs	3 Years	2009

Projects completed:

Sl. No.	Principal Investigator	Project Title	Funding Agency	Date of Sanction	Sanctioned Amount	Duration in Year	Completed on
1	Dr. J. S. Roy	Design and Development of Reconfigurable Microstrip Antennas for Multiband Wireless Communications	UGC	2007	Rs. 6,65,400/-	2 years	2009

Seminar/ Conference/ Short Term Course(s) conducted by the Department:

1. 24th National Convention of Electronics & Telecommunication Engineers and National Seminar on Recent Advances in Wireless & Mobile Comm. organized by Institution of Engineers (Ranchi) in association with Dept. of ECE, BIT Mesra, Ranchi (RAWMTEL-08)
 - a. No. of delegates : 50
 - b. Name of dignitaries:
 - Prof. Ramjee Prasad, Director, CTIF, Aalborg University, Denmark
 - Dr. S. K. Chakravarty, CGM, Kolkata Telephones
 - Prof. Chandan Mazumdar, Professor, Jadavpur University, Kolkata

- Er. G. K. Pillai, CMD, HEC, Dhurva, Ranchi

c. Resource persons involved:

- Er. A. V. Krishna, Director, Birsa Munda Airport, Ranchi
- Prof. (Dr.) T. S. Kamal,
- Er. K. K. Mukherjee, GM, MECON Ltd., Ranchi
- Er. D. Biswas, DGM, MECON Ltd., Ranchi

d. Period (duration): 18-19 October 2008

2. National Seminar on Devices, Circuits and Communication –08 (NASDAC2-08)

a. No. of delegates: 40

b. Name of dignitaries:

- Mr. R. Kapur, CGM, BSNL, Ranchi,
- Dr. A. A. Khan (VC. Ranchi University)
- Mr. G. K. Pillai, CMD, HEC, Ranchi

- Resource persons involved : Dr. Ajay Chakraborty (IIT Kharagpur), Dr. K. S. Yadav (CEERI, Pilani), Dr. S. S. Das (IIT Kharagpur), Dr. Srikant Patnaik (Director, IIMT, Bhubneshwar), Dr. Omar Farooq (AMU, Aligarh)
- Period (duration) : 6-7 November 2008

Publications:

International Journals:

1. Mrinal Mishra and Nisha Gupta, "Singularity Treatment for Integral Equations in Electromagnetic Scattering using Monte Carlo Integration Technique," *Microwave and Optical Technology Letters*, Vol. 50 No. 6, pp. 1619-1623, June 2008.
2. Mrinal Mishra and Nisha Gupta, "Quasi Monte Carlo Integration Technique for Method of Moments Solution of EFIE in Radiation Problems," *Applied Computational Electromagnetics Society Journal*, Vol..24 No. 3 June 2009.
3. Mrinal Mishra, Nisha Gupta, Ankhuri Dubey and Shradha Shekhar, "Application of Quasi Monte Carlo Integartion Technique in Efficient Capacitance computation," *Progress In Electromagnetics Research*, PIER 90, 2009, pp. 309-322.
4. Nisha Gupta, K. Kaushal, A. K. Yadav, and V. Kumar, "Experimental Investigation On Radiation Characteristics of IC Chips," *Progress In Electromagnetics Research Letters*, Vol. 7, 161-169, 2009.
5. Mrinal Mishra and Nisha Gupta, "Application of Quasi Monte Carlo Integration Technique in EM Scattering from Finite Cylinders," *Progress In Electromagnetics Research Letters*, Vol. 9, 109-118, 2009.
6. Tanushree Bose and Nisha Gupta, "Neural Network for Aperture Coupled Microstrip Antennas", *Microwave Review*, Vol. 14, pp. 21-24, September 2008.
7. B. N. Kiran Kumar, Vibha Rani Gupta and Nisha Gupta, "Reduced size, Wide Band Microstrip Patch Antenna for Wireless LAN Applications," *TechOnLine - Educational Resources for Electronics Engineers*, June 05, 2008.

8. Bharat Bhushan Agrawal, Vibha Rani Gupta, "Improvement of Impedance Matching of a Rectangular Printed Monopole Antenna", *Microwave Review*, Vol. 14, pp. 13-16, September 2008.
9. Dilip Kumar, S.Sengupta and S.K.Ghorai, "Distributed Strain Measurement using Modal Interference in a Birefringent Optical Fiber", *Measurement Science and Technology*, Vol. 19, pp 065201-8(2008).
10. Preetam Kumar and Saswat Chakrabarti, "OCDMA/OCDMA Overloading Scheme for Cellular DS-CDMA system using Orthogonal Gold Codes and Complex Scrambling," *International Journal of Communications, Network and System Sciences (IJCNS, SRP, USA)*, Vol. 1, No. 3, pp. 207-214, August 2008
11. Preetam Kumar and Saswat Chakrabarti, "An Improved OCDMA/OCDMA Overloading Scheme for Cellular DS-CDMA," *Springer-Verlag LNCS*, Vol. 5174, pp. 25-36, August 2008.
12. Ved Vyas Dwivedi, Shweta srivastava and Y. P. Kosta, "Analysis and Design of Slot Antenna", *Microwave Journal*, vol. 51, no. 6, June 2008.
13. D. Pal, Avireni Srinivasulu, B. B. Pal, A. Demosthenous, and B. N. Das, "Current conveyor based square/ triangular – waveform generators with improved linearity," *IEEE Transactions on Instrumentation and Measurement Journal*, vol. 58, no. 7, pp. 2174-2180, July 2009.
14. Pawan Kumar Bansal, Jitesh Kumar Khatri, S.S.Solanki, "Performance Analysis of SVM over ANN for DWT Based Classification and Retrieval of Audio Signals", *International Journal- HIT-Transactions on ECCN*, ISSN:0973-6875.
15. Sanjeet Kumar, Saswat Chakrabarti and Jayanta Mukhopadhyay, "Performance of Symmetric and Asymmetric Turbo Code for Distributed Source Coding in an AWGN channel", *Jurnal Penelitian dan Pengembangan TELEKOMUNIKASI*, Indonesia, vol.13, no.1, June 2008, ISSN: 1410-7066.
16. Soubhik Chakraborty, Rayalla Ranganayakulu, Shivee Chauhan, Sandeep Singh Solanki and Kartik Mahto, "An Interesting Comparison Between A Morning Raga With An Evening One Using Graphical Statistics", *Philomusica on-line Journal*.

Proceedings:

International:

1. Anjani Kr. Tiwary and Nisha Gupta, "Electromagnetic Interference reduction using Electromagnetic Bandgap Structures," 10th Int. Conference on Electromagnetic Interference and Compatibility (INCEMIC 2008), 26-27 Nov. 2008, Bangalore.
2. Md.Anzarul Haque and Nisha Gupta, "Study of Electromagnetic Interference due to Mobile Communication," 10th Int. Conference on Electromagnetic Interference and Compatibility (INCEMIC 2008), 26-27 Nov. 2008, Bangalore.
3. Anjani Kr. Tiwary and Nisha Gupta, "Microstrip Lowpass Filter with improved rejection bandwidth," in the IEEE Colloquium and the third IEEE International Conference on Industrial and Information Systems (ICIIS 2008), Indian Institute of Technology, Kharagpur, India during 08 – 10 December 2008.
4. Mrinal Mishra, Nisha Gupta, Ankhuri Dubey and Shradha Shekhar, "A New Algorithm for Method of Moments Solution of Static Charge Distribution," in the IEEE Colloquium and the third IEEE International Conference on Industrial and Information Systems (ICIIS 2008), Indian Institute of Technology, Kharagpur, India during 08 – 10 December 2008.
5. Nisha Gupta and Sumana Kumari, "Printed Monopole Antennas for Wireless Devices," *International Conference on Recent Advances in Microwave Theory and Applications*, pp. 625-628, Nov. 21-24, Jaipur.

6. Ritesh Kumar Badhai and Nisha Gupta, "Reduced Size Bow-Tie Coupled Slot Monopole Antenna for Land Mine Detection", International Conference on Innovative Technologies (ICIT-09): Research and Development in Science, Technology and Management, 18-19 June 2009, PDM College of Engineering, Bahadurgarh, Haryana.
7. Apurva Sacheti, Nisha Gupta, and D. K. Gupta " Constraint Satisfaction Based Approach for Propagation Modelling", International Conference on Innovative Technologies (ICIT-09): Research and Development in Science, Technology and Management, 18-19 June 2009, PDM College of Engineering, Bahadurgarh, Haryana.
8. Tanushree Bose, Vibha Rani Gupta and Nisha Gupta, "Neural Network Model for Design of Printed Monopole Antenna," International Conference on Recent Advances in Microwave Theory and Applications, pp. 71-73, Nov. 21-24, Jaipur.
9. Diptimayee Dash and Vibha Rani Gupta, " Design of Probe Fed Stack patch Antenna Using Neural Network", International Symposium on Microwaves and Millimeter waves: basics and Technology ISoMM-09, 14-16, January, 2009, Kolkata, India, Organized by Bose Institute.
10. Priyadarshi Suraj and Vibha Rani Gupta, "Design and Optimization of Monopole Patch Antenna Using Genetic Algorithm for UWB Applications", International Conference on Innovative Technologies (ICIT-09): Research and Development in Science, Technology and Management, 18-19 June 2009, PDM College of Engineering, Bahadurgarh, Haryana.
11. Preetam Kumar and Saswat Chakrabarti, "Overloading Performance of OCDMA/OCDMA scheme for Cellular DS-CDMA system on a Rayleigh Fading Channel," IEEE ISSSTA, Italy, August 2008
12. Preetam Kumar and Saswat Chakrabarti, "Overloading Performance of Cellular DS-CDMA System with Imperfect Power Control," IEEE IWCMC: Communication and Information Theory Symposium, Greece, August 2008
13. Sujit Jos, Preetam Kumar and Saswat Chakrabarti, "A Code Selection Criterion Based on Autocorrelation Properties for Quasi-Synchronous CDMA Communication," IEEE ISSSTA, Italy, August 2008
14. Preetam Kumar and Saswat Chakrabarti, "Performance Evaluation of Orthogonal and Quasi-Orthogonal Codes for Cellular CDMA in Quasi-Synchronous Environment," IEEE 9th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC 2008), Brazil, July 2008
15. Preetam Kumar and Saswat Chakrabarti, "A New Overloading Scheme for Cellular DS-CDMA using Orthogonal Gold Codes," IEEE Vehicular Technology Conference-Spring (VTC-Spring), Singapore, May 2008
16. Preetam Kumar, Sujit Jos and Saswat Chakrabarti, " BER Analysis of Orthogonal Codes in Quasi-Synchronous CDMA Communication," IEEE Canadian Conference on Electrical and Computer Engineering (CCECE), Ontario, Canada, May 2008
17. Preetam Kumar and Saswat Chakrabarti, "BER Performance Evaluation of Overloaded DS-CDMA System with Timing Synchronization Error," IEEE Sarnoff Symposium 2008, Princeton, NJ, USA, April 2008
18. Preetam Kumar and Saswat Chakrabarti, "BER Analysis of Hard Decision Interference Cancellation Receiver for Overloaded DS-CDMA System," IEEE Sarnoff Symposium 2008, Princeton, NJ, USA, April 2008
19. Preetam Kumar and Saswat Chakrabarti, "BER Performance of a New Overloading Scheme for Cellular DS-CDMA on Rayleigh Fading Channel," IEEE 12th Annual International Symposium of Consumer Electronics 2008 (ISCE 2008), Portugal, April 2008

20. Kumar P. and Chakrabarti S., "BER Evaluation of Overloaded DS-CDMA System with Timing Synchronization Error on Rayleigh fading channel," IEEE 12th Annual International Symposium of Consumer Electronics 2008 (ISCE 2008), Portugal, April 2008
21. Sujit Jos, Preetam Kumar and Saswat Chakrabarti, "Error Free Despreading of Orthogonal Codes in Quasi-synchronous DS-CDMA Communication," IEEE International Conference on Advanced Communication Technology (ICACT), Phoenix Park, South Korea, Feb.' 2008
22. Sujit Jos, Preetam Kumar and Saswat Chakrabarti, "Performance Evaluation of Quadratic-Residue and Orthogonal Gold code as spreading sequences for Quasi-synchronous CDMA Communication", 10th International Conference on Distributed Computing and Networking (ICDCN 2009, IIIT, Hyderabad), Springer-Verlag Berlin LNCS, Vol. 5408, pp. 395-399,, January 2009
23. Sujit Jos, Preetam Kumar and Saswat Chakrabarti, "Performance Comparison of Orthogonal and Quasi-orthogonal Codes In Quasi-Synchronous Cellular CDMA Communication", ACCESSNETS 2008, Spriger's LNICST), LasVegas, USA, October 2008
24. Sanjaya Shankar Tripathy, Priyank Saxena, S. S. Solanki, R. Sukesh Kumar, "PNN Implementation of Content Based Image Retrieval Using Descriptors Hierarchy" International Conference on Content Based Image Retrieval" pp: 22-26, PESIT Bangalore, India, July16-18, 2008
25. D.D.Seth, Charu Wahi & Srikanta Pal "A faired QoS assured MAC protocol for Mobile Adhoc Network", IEEE- International Conference on computing communication and Networking (ICCCN08) Proceedings, Karur (Tamilnadu), 18-20 December 2008.
26. Soumya Sidhishwari, S. Sengupta and S.K.Ghorai, "Higher order modal interference in optical fiber for structural health monitoring", International Conference on Fiber Optics & Photonics (PHOTONICS-2008), Organized by IIT Delhi, Delhi, Dec. 15-17, 2008.
27. Janardan Sahay & S.S.Pathak, "Constellation Constrined Capacity for Rayleigh Flat Fading Channels." 3rd International Conference on Communication, ICTEL 2008, Bandung, 29-33, August, 2008.
28. Sanjeet Kumar, Saswat Chakrabarti and Jayanta Mukhopadhyay, "Performance of Symmetric and Asymmetric Turbo Code for Distributed Source Coding in an AWGN channel", Jurnal Penelitian dan Pengembangan TELEKOMUNIKASI, Indonesia, vol.13, no.1, June 2008, ISSN: 1410-7066
29. Sanjeet Kumar, Saswat Chakrabarti and Jayanta Mukhopadhyay, "Distributed Video Coding with SOVA decoder and Adaptive Rood Pattern Search based motion estimation at the decoder" in Proc. International Conference on computing, Communication and Networking, Tamilnadu, India, Dec. 2008.
30. Sanjeet Kumar, Saswat Chakrabarti and Jayanta Mukhopadhyay, "Performance comparison of a Distributed Source Coding scheme using Log-MAP and SOVA decoder in an AWGN channel", in Proceeding of the fourth International Conference on Wireless Communication and Sensor Networks, IIIT Allahabad, India, Dec. 2008.
31. Sanjay Kumar, V. Palma, E. Vorgat, N. Marchetti, and P. E. Mogensen "Light Cognitive Radio for Flexible Spectrum Usage in Local Area Deployment" IEEE Vehicular Technology Conference 2009 (VTC 2009), Barcelona, Apr 26-29, 2009.
32. Sanjay Kumar, G. Monghal, Jaume Nin, Ivan Ordas, K. I. Pedersen, P. E. Mogensen, " Autonomous Inter Cell Interference Avoidance under Fractional Load for Downlink Long Term Evolution", IEEE Vehicular Technology Conference, Barcelona, Apr 26-29, 2009.

33. Guillaume Monghal, Sanjay Kumar, K. I. Pedersen and P. E. Mogensen, "Integrated Fractional Load and Packet Scheduling for OFDMA Systems", IEEE ICC for International Workshop on LTE Evolution Dresden, Germany, June 2009.
34. Yuanye Wang, Sanjay Kumar, Luis Garcia, K. I. Pedersen, I. Z. Kovács, Simone Frattasi, Nicola Marchetti and P. E. Mogensen "Fixed Frequency Reuse for LTE-Advanced Systems in Different Scenarios", IEEE Vehicular Technology Conference, Barcelona, Apr 26-29, 2009.
35. Sanjay Kumar and N. Marchetti, "IMT-Advanced Technological Requirements and Solution Components", Wireless Communications, Vehicular Technology, Information Theory and Aerospace and Electronic Systems Technology (Wireless Vitae), Aalborg, Denmark, May 17-20, 2009.
36. Sanjay Kumar, Y. Wang, N. Marchetti, I. Z. Kovács and P. E. Mogensen, "Spectrum Load Balancing for Flexible Spectrum Usage in Local Area Deployment Scenario" IEEE Symposium on Dynamic Spectrum Access 2008 (DySPAN 2008), Chicago, Oct 14-17, 2008
37. Sanjay Kumar, I. Z. Kovacs, G. Monghal, K. I. Pedersen, P. E. Mogensen "Performance Evaluation of 6 Sector Cell Lay Out For 3GPP Long Term Evolution", IEEE VTC, Calgary, Canada, 21-24 Sep, 2008.
38. D. Pal, Avireni Srinivasulu, and M. Goswami, "Novel current-mode waveform generator with independent frequency and amplitude control," in proc. of the IEEE International Symposium on Circuits and Systems (ISCAS 2009), Taiwan, 24-27 May 2009, pp. 2946-2949.

National:

1. Paresh Mohan Dholakia and Nisha Gupta, "Performance analysis of MIMO systems in Scattering Environment" National conference on "Emerging trends in Computer Technology" (ETCT 2008) organised by Computer Engineering Dept & Information Technology Dept, Sarvajanik College of Engineering and Technology, Surat and CSI (Computer Society Of India) Surat Chapter, Surat, pp. 108-113, June 2008.
2. Aminul Islam and Shashank Kumar "Design of Signed Multiplier based on Carry Save Adder and modified Booth algorithm", National Seminar on Micro/Nano Manufacturing (NSMNM-08), CIT, Cambridge Institute of Technology, Ranchi, 2008.
3. Dr. Vijay Nath and Aminul Islam, "Design and Development of CMOS Low-Power Digital Systems Based on Adiabatic-Switching Principles in VLSI", 24th National Convention & National Seminar on Recent Advances in Wireless & Mobile Telecommunications (RAWMTEL-08), The Institution of Engineers (India) and Department of ECE, BIT, Mesra, Jharkhand State Centre, Engineer Bhawan, Nepal Kothi Campus, Doranda, Ranchi, Jharkhand, 2008.
4. Aminul Islam, Shashank Kumar, Ratish Kumar Mishra, Himanshu Raj, "Design and Development of Low-Voltage High-Speed CMOS Schmitt trigger", 3rd National Conference on Embedded Systems-2009 (EMCON-09), Anand Nagar, Krishnankoil, Srivilliputtur, Tamil Nadu, India, IEEE student branch, Kalasalingam University, Feb 19th -20th, 2009.
5. Vikash Ranjan, Chetan S. Solanki and R. K. Lal, "Minority Carrier Lifetime Measurement of Solar Cell", Proc. National Seminar on Advanced Optoelectronic Materials and Devices (AOMD-2008) held at IT, BHU, Varanasi, during 22-24 Dec. 2008, pp. 299-306, 2008.
6. T. K. Parashar, Mahendar Das, R. K. Lal, "Modeling of a Infrared Photo-Detector for Carbon mono-oxide (CO) Monitoring", Proc. National Seminar on Devices, Circuit and Communication (NASDAC2-08), BIT, MESRA, Ranchi, during November 6-7, 2008, abstract published in Souvenir Session III- Device, Circuit and Design, pp.19, 2008

7. E. Munisekhar, Avireni Srinivasulu, Roshan Mishra, Sushil Kumar, Basab Bijoy Pal, Alope Saha, and Dipankar Pal, "Improved throughput Parallel-Pipeline 2-D DCT and IDCT Processor," RAWMTEL-08, Ranchi.
8. Dipankar Pal, Avireni Srinivasulu, Manish Goswami, "Novel Current-Mode Waveform Generator with Independent Frequency and Amplitude Control," will be presented by the main author in IEEE ISCAS-09
9. N. Mishra, Shipra Mishra, Mahesh Chandra and S. N. Sharan, "Speech Recognition Using Linear Prediction Based Features", National Seminar on Devices, Circuits & Communication, BIT, Mesra, Ranchi, India, pp. 115-118, Nov 2008.
10. Gajraj Singh, Mahesh Chandra, Omar Farooq and Z. A. Abbassi, "Noise Minimization from Speech Signals using Adaptive Filters", National Seminar on Recent Advances in Wireless & Mobile Telecommunications, IET, Ranchi, India, Oct 2008.
11. Iti Ambashree, D.D.Seth & G.Sahoo "Performance Comparison of Secured Routing Protocol for Mobile Adhoc Network" Recent Advances in Wireless & Mobile Communication (RAWMTEL-08), Institution of Engineers, Ranchi in October 2008.
12. S.K. Ghorai, Himansu Agarwal and Avaneesh Arya, "Gaussian Sampled Chirped Fiber Bragg Grating For Dispersion Compensation In Broadband WDM System", National Seminar on Recent Advances in Wireless & Mobile Telecommunications, (RAWMTEL-08), Organised by The Institution of Engineers, Ranchi, Oct.18-19, 2008.
13. Alok Talekar, Partha paul and S.K.Ghorai, "Traffic Grooming in Broadband Optical Networks using Limited Grooming Resources", National Seminar on Devices, Circuits & Communication, (NASDEC2-08), Organized by B.I.T. Mesra, Ranchi, Nov. 6-7, 2008.
14. Preetam Kumar and Janardan Sahay, "Effect Of Code Selection on the User Capacity for Cellular CDMA Using Multiuser Detectors", NASDEC-2, BIT MESRA, 2008.
15. Sanjeet Kumar, Saswat Chakrabarti and Jayanta Mukhopadhyay, "Performance of Symmetric and Asymmetric Turbo Code for Distributed Source Coding in a Flat Fading Channel" in Proceedings of the fifteenth National conference on Communications, NCC-2009, IIT Guwahati, Jan. 2009.
16. Sanjeet Kumar, Saswat Chakrabarti and Jayanta Mukhopadhyay, "Distributed Source Coding for correlated image data in an AWGN channel" in Proceeding of Nation Seminar on Devices, Circuits and Communication, NASDECC-08, BIT Mesra, India, Nov. 2008.
17. Sanjeet Kumar, Saswat Chakrabarti and Jayanta Mukhopadhyay, "Performance evaluation of a Distributed Video Coding scheme using low complexity SOVA decoder for transmission over unreliable channels" in Proceeding of the RAWTEL-08, BIT Mesra, India, Oct. 2008
18. Sanjay Kumar, N. Marchetti, and Ramjee Prasad, "Technological Enhancements for Next Generation Mobile Communications Systems", National Seminar on Recent Advances in Wireless and Mobile Telecommunications (RAWMTEL-08), Ranchi, Oct 18-19, 2008.

Books:

"New Directions in Wireless Communications Research", (Edited by Vahid Tarokh, Harvard University, USA) Springer Publications, in press. [Contribution made by Mr.Sanjeet Kumar to the chapter "OFDM: Principles and Challenges"].

Seminars / Conferences / Symposia / Short term courses attended by the faculty members:

Dr. Nisha Gupta

1. Workshop on "Funding opportunities for sponsored Research" 19-20 August 2008

Dr. S. K. Ghorai

1. Invited Lecture on "Optical Networking and Fiber Optic Sensors" at Short Term Training Course on "Advanced Communication Systems and Networks" held at NIT, Kurukshetra, during 7th -18th July 2008.
2. Workshop on "Funding opportunities for sponsored Research" 19-20 August 2008.

Mr. M. Puri

1. Delivered Lecture as Resource person for Summer School held at NIT, Patna on 24th June 2008.
2. Attended a workshop on Broadband Wireless Systems- Advanced at Institute of Radiophysics & Electronics, Kolkata, 4-6 August 2008

Dr. (Mrs.) V. R. Gupta

1. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 16 September 2008 to 20th September 2008.

Dr. Mahesh Chandra

1. Delivered an Invited lecture on Speech Recognition during National Conference on Emerging Technologies at MIT, Moradabad from 24- 25 Jan 2009.
2. Attended Inter-school on speech and audio processing at IIT Kanpur from 09-12 Jan 2009.
3. Attended Digital Speech Processing at IIT Kharagpur from 03-17 July 2008.
4. 15 Days Short Term Training Program on "VLSI Tools" (VHDL, XILINX) by CGCorel, Bangalore at B.I.T Mesra, from 7th May 2008 to 24th MAY 2008.

Mr. S. D. K. Verma

1. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 25 Aug 2008 to 29 Aug 2008.

Dr. (Mrs.) N. Chattoraj

1. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 16 September 2008 to 20th September 2008.

Mr. Vishal H. Shah

1. Faculty Development Program on "Training to Teachers", organized by Birla Institute of Technology, Mesra from 11th August 2008 to 14th August 2008
2. Faculty Development Program on Entrepreneurship at Indore from 19th December 2008 to 30th December 2008, organized by Entrepreneurship Development Institute of India, Ahmedabad
3. 15 Days Short Term Training Program on "VLSI Tools" (VHDL, XILINX) by CGCorel, Bangalore at B.I.T Mesra, from 7th May 2008 to 24th MAY 2008.
4. AICTE-ISTE sponsored STTP on "Use of Matlab Tool boxes for Real Time Applications in Electrical Engineering" from 16th June -22nd June 2008 organized by Dept. of EEE, Birla Institute of Technology, Mesra, Ranchi, INDIA.

Mr. K. Mahto

1. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 5th Aug 2008 to 9th Aug 2008.

Mr. D. D. Seth

1. 15 Days Short Term Training Program on "VLSI Tools" (VHDL, XILINX) by CGCorel, Bangalore at B.I.T Mesra, from 7th May 2008 to 24th MAY 2008.

Mr. A. Islam

1. Attended short-term course on "VHDL, FPGA, Embedded Systems and DSP Training programming" organized by CG-CoreEI & BIT, Mesra, Ranchi at BIT from 07 may 2008 to 24 may 2008.
2. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 25 Aug 2008 to 29 Aug 2008.

Mr. Janardan Sahay

1. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 30th July 2008 to 2nd Aug 2008

Dr. R. K. Lal

1. Attended National Seminar on Advanced Optoelectronic Materials and Devices (AOMD-2008), 22-24 Dec. 2008, organised by Dept of Electronics, Institute of Technology, BHU, Varanasi.
2. 2nd BANGALORE NANO, Dept. of IT, BT and Science & Technology, Government of Karnataka, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) and MM Activ, 11 - 13 Dec. 2008.
3. Attended workshop on Nanotechnology in semiconductor industry, Organised by Department of ECE, M. M. Engineering College, Gorakhpur, April 5-6, 2008.
4. Attended short-term course on "VHDL, FPGA, Embedded Systems and DSP Training programming" organized by CG-CoreEI & BIT, Mesra, Ranchi at BIT from 07 May 2008 to 24 May 2008.
5. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 25 Aug 2008 to 29 Aug 2008.

Mr. A. Srinivasulu

1. Attended 15 Days Short Term Training Program on "VLSI Tools" (VHDL, XILINX) by CGCorel, Bangalore at B.I.T Mesra, from 7th May 2008 to 24th MAY 2008.

Mr. Sanjaya Shankar Tripathy

1. Attended AICTE-ISTE sponsored STTP on " Use of Matlab Tool boxes for Real Time Applications in Electrical Engineering" from 16th June –22nd June 2008 organized by Dept. of EEE, Birla Institute of Technology, Mesra, Ranchi, INDIA
2. Attended "Online Monitoring and Control using SCADA" from 14th May – 18th May, 2007, organized by National Institute of Technical Teachers Training and Research, Chandigarh, INDIA.
3. Attended 15 Days Short Term Training Program on "VLSI Tools" (VHDL, XILINX) by CGCorel, Bangalore at B.I.T Mesra, from 7th May 2008 to 24th MAY 2008.

Ms. Swati Prasad

1. Attended short-term course on "VHDL, FPGA, Embedded Systems and DSP Training programming" organized by CG-CoreEI & BIT, Mesra, Ranchi at BIT from 07 may 2008 to 24 may 2008.

2. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 5th Aug 2008 to 9th Aug 2008.
3. Attended short-term course on "Image Processing and Pattern Recognition." organized by School of Medical science, IIT Kharagpur from 06/06/09 to 11/06/09

Mr. D. K. Upadhyay

1. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 25 Aug 2008 to 29 Aug 2008.

Ms. Annapurna S. M.

1. Attended short-term course on "VHDL, FPGA, Embedded Systems and DSP Training programming" organized by CG-CoreEI & BIT, Mesra, Ranchi at BIT from 07 May to 24 May 2008.
2. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 11Aug 2008 to 14 Aug 2008.

Mr. Priyank Saxena

1. Attended 15 Days Short Term Training Program on "VLSI Tools" (VHDL, XILINX) by CGCoreI, Bangalore at B.I.T Mesra, from 7th May 2008 to 24th MAY 2008.

Mr. A. K. Tiwary

1. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 5th Aug 2008 to 9th Aug 2008.

Mr. V. Nath

1. Attended 15 Days Short Term Training Program on "VLSI Tools" (VHDL, XILINX) by CGCoreI, Bangalore at B.I.T Mesra, from 7th May 2008 to 24th MAY 2008.
2. Attended Technology CAD for VLSI Design, IIT KGP, 04 June 2008 to 7th June 2008.
3. Attended short-term course on "Workshop on Effective Teaching" organized by TEQIP, BIT, Mesra, Ranchi at BIT from 30th July 2008 to 2nd Aug 2008

Mr. Sanjeet Kumar

1. MHRD/AICTE sponsored short-term course on "Practical Leadership" held at Vinod Gupta School of Management, IIT Kharagpur, and 23 rd June 2008 to 5th July 2008.

Mr. Sanjay Kumar

1. Conferences onWireless Communications, Vehicular Technology, Information Theory and Aerospace and Electronic Systems Technology (Wireless Vitae), Aalborg, Denmark, May 17-20, 2009.
2. IEEE Vehicular Technology Conference 2009 (VTC 2009), Barcelona, Apr 26-29, 2009.
3. IEEE Symposium on Dynamic Spectrum Access 2008 (DySPAN 2008), Chicago, Oct 14-17, 2008
4. IEEE VTC, Calgary, Canada, 21-24 Sep, 2008.
5. Tutorials on Long Term Evolution, one day, Aalborg University, May 17, 2009
6. Spectrum Sharing Internal Workshop, organized by Radio access technology section, Technology platform section, and Nokia Siemens Network, Aalborg University, Apr 29, 2008.
7. Management of Research and Development, Aalborg University, 3 days, Apr 17-19, 2009.

8. Problems of Advanced Optimization, organized by dept. of mathematics, Aalborg University, 4 days, April 2009.
9. Theories of Science, Aalborg University, 2 days, Nov 2008.
10. PBL in Engineering and Science : Development of Supervisors Skills, Aalborg University, three and half days, October 2008,
11. Long Term Evolution workshop, organized by Nokia Siemens Network, Aalborg, one week, Sep 1-5, 2008.
12. Interdisciplinary Seminar on Applied Mathematics, organized by dept. of mathematics, Aalborg University, April 17, 2008.

Dr. M. Mishra

1. Attended a workshop on "Computational Material Science" in Department of Material Engineering, Indian Institute of Science, Bangalore, during 6-8 March, 2009.

Student Activities:

1. Priyadarshi Suraj, won 2nd prize for the paper titled "Design and optimization of UWB Antenna using Genetic Algorithm" in CORONA'09, organized by National Institute of Technology, Patna, 12 – 14 February 2009
2. Nirmalya Sanyal, Pawan Kr. Gupta, won 2nd prize for "Intelligent Traffic Control system through laser and GPS" in Anveshan'09, East Zone- National Student Research Convention, organized by Association of Indian Universitys(AIU), Banaras Hindu University, 9-11 February, 2009.
3. Somit srivastava, Rrasant Dutt Mishra, Md. Azhar Saba Jilani, won 1st prize for "LOAD RUNNER (Semi Autonomous Robotics) " in SPARX'09, IEEE student Branch, I. S.M. University Dhanbad and IEEE India Circuits and Systems Society Chapter.
4. Somit srivastava, Md. Azhar Saba Jilani, Prasant Dutt Mishra, won 1st prize for "LIGHT STEWARD (Autonomous Robotics) " in SPARX'09, IEEE student Branch, I. S.M. University Dhanbad and IEEE India Circuits and Systems Society Chapter.

Other information:

1. Under "Research Cooperation Program" following faculty members have gone to two different universities for one year each:
Mr. Sanjay Kumar: Centre of Teleinfrastructur, Aalborg University, Denmark.(Completed this year)
Mr. Bharat Gupta: University of Roma - Tor – Vergata, Italy.
2. Dr. (Mrs.) Nisha Gupta chaired a session and delivered an Invited talk on "Research Activities in Microtrip Antennas and Computational Electromagnetics group in BIT Mesra" in International Conference on Recent Advances in Microwave Theory and Applications (MICROWAVE 2008) during Nov. 21-24, Jaipur.
3. Dr. S. K. Ghorai delivered an Invited talk on "Distributed Strain Sensing uses Optical Fiber" in CEP program at ADRDE, DRDO, Agra, during 24th-28th Nov. 2008.
4. Faculty members are involved in interDepartmental activities as well as in teaching elective papers, conducting Labs. and supervising research works of other institutions.
5. Prof. M. Puri was a convenor of the seminar titled "Protecting Children In Cyberspace", organized by Student Chapter ET Division, IE(I) on the occasion of World Telecommunication and Information Society Day on 17th May 2009 at Engineer Bhawan Doranda, Ranchi.

Department of Electrical and Electronics Engineering

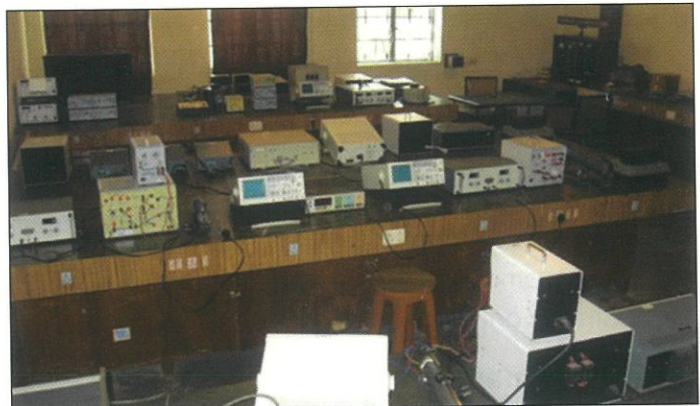


The Department is dedicated to the current needs of the industry and has the flexibility to tune its programs according to different requirements. Application of new technology in various fields is one of the concerns of the Department.

The Department has been a center for research in the areas of digital signal processing, microprocessor applications, control systems, digital image processing, power systems,

power electronics etc, from time to time. Currently a number of Ph.D. scholars are working in the areas of non-stationary signal analysis, intelligent control techniques applied to automatic generation control and non linear dynamic systems, development of new architecture for neural networks, magneto-optic switches and sensors, systems biology, reliability evaluation in the area of power system and software etc.

The Department envisions to cope with the fast changing pragmatic needs of the technology throughout the globe by adopting suitable new courses and modernizing of labs along with commensurate faculty development through research activities. In pursuit of that, the Department introduced new subject of Systems Biology in the existing P.G. Course of control system, a new PG course in Power Electronics & Drives and a PGD (Post-Graduate Diploma) course in Standards and Calibration has been proposed.



The Department has taken up various projects for modernization of laboratories under FIST level 1 programme (DST) especially for control system lab and power system lab. There are other ongoing projects sponsored by AICTE on control system using AI technique & robotics. A number of proposals have been submitted to UGC and DST for sanction. A good power electronics laboratory is being developed with grants from DST through NaMPET co-ordinated by C-DAC Trivendrum. Grant has also been received from Govt. of Jharkhand to develop lightning prediction and protection system.

With regard to academics, being a lead institute in the network under TEQIP programme, the Department of EEE has a close collaboration with the Department of EE of BIT, Sindri. The Department has conducted many ISTE-AICTE sponsored short-term courses and national seminars to improve the quality of teaching and research.

The Department takes the pride to train rural people in the area of "Maintenance and Repairing of Electrical System" and "Maintenance and Repairing of Household Appliances", in collaboration with the Department of Welfare, Govt. of Jharkhand, to qualify them for self-employment by enhancing their technical skill.

Infrastructure Added:

1. New Power Electronics Lab
2. New Power System Lab

Major Equipment Added in Power Electronics Lab:

Sl. No.	Description with brief specification	Manufacturer /supplier	Purchase order no. and date	Date of item received	Total cost in Rs.
1.	3 ph VSI fed PWM Inverter AC drive(1 hp)	Semikron, kolkata	30/08	25/3/09	45604.00
2.	Regulated DC Power Supplies \pm 5/12/15V upto 5Amp	APLAB, Ranchi	11/08-09	04/07/08	37912.00
3.	FPGA Board AC,DC,BLDC motor and load	Vi- Microsystem	31/08-09	25/03/09	297000.00
4.	JTAG Emulator, for interfacing the DSP, TDS510PP / USB	GAO Tek Inc. Canada	31/08-09	On the way	115600.00
5.	d-SPACE add on card	Crane software,	08/08-09	10/10/08	416000.00
6.	Digital Multimeter 43/4 Digit	Techno-scientific company, kolkata	13/08-09	16/12/08	22256.00
7.	DC Demonstation module	Newtech System, Bangalore	35/08-09	Yet to received	80055.00
8.	Arbitrary Function Generator AFG 3102	Techno-scientific company (Tektronix), kolkata	13/08-09	16/12/08	268320.00
9.	Programmable Power Supplies 6030A	Agilant Tech.	13/08-09	08/09/08	287890.00
10.	4-channel DSO, TPS2024	Tektronix	13/08-09	16/12/08	173680.00
11.	Digital Power meter	Yokogawa, Japan	14/08-09	27/05/09	190000.00
12.	Passive differential voltage probe	Tektronix	09/08-09	29/06/09	26200.00
13.	Passive Current probe	Tektronix	09/08-09	29/06/09	32760.00
Total Cost (Procured+Ordered+Processed)					1993277.00

Programmes Offered:

Programme offered	Specialization	
B.E	Electrical & Electronics Engineering	
M.E	Electrical Engineering	Power System
		Control System
Ph.D.	Electrical Engineering	

Projects:**Ongoing Projects:**

Sl. No.	Title of the project	Funding Agency	Amount Sanctioned (in Rs. lacs)	Co-ordinator / Investigator	Duration of Project
1.	Developing Advanced Laboratories	FIST Scheme under DST	27.00	Dr. B. M. Karan	5 years
2.	Establishment of Instrumentation Maintenance Facility (IMF) during Xth Plan Period	U.G.C.	2.50		5 years
3.	Design & Development of Lightning Prediction & Protection System	DST, Govt. Of Jharkhand	150.00	Dr. B. M. Karan, Mr. Prem Prakash	3 years
4.	Speed Control of DC Motor using AI Techniques	AICTE	8.3	Mr. S. G. Kadwane	2 years
5.	Establishment of Power Electronics Laboratory under NaMPET	C-DAC (T)	35.03	Dr. B.M. Karan	2 years

Seminar/ Conferences/ Short Term Courses conducted by the Department:

Name of course	Candidates	No. of Students
Vocational Training Programs (in collaboration with Department of Welfare, Govt. of Jharkhand) on Repair & Maintenance of Electrical System Troubleshooting & Maintenance of Electrical Devices	Exclusively for 40% for ST 20% for SC 20% for OBC 20% for minorities	600 50 students in each batch per programme
Power Electronics Course (SPE), in collaboration with Indian Railway Institute of Mechanical & Electrical Engineering, Jamalpur. (31st March'08-4th April'08)	Supervisors and engineers from Indian Railways as well as from abroad	42(11 from abroad Cambodia, Myanmar, Tanzania, Iraq, Sri Lanka & Malaysia)
Power Electronics Course (SPE), in collaboration with Indian Railway Institute of Mechanical & Electrical Engineering, Jamalpur. April 30-May 04, June 30- July 04 and Dec 15-19, 2008, (conducted three consecutive short term courses)	Supervisors and engineers from Indian Railways as well as from abroad	41+30+30
Use of Matlab Toolboxes for real-time applications(ISTE-AICTE sponsored program) held in June 2008	Faculties from AICTE approved Engineering Institutes	30

Seminar /Conferences / Short Term Courses Attended by the Faculty:**Workshop attended:**

Name of the Programme	Organizers	Place	Duration	Name of faculty
Power Electronics	NIT, Trichy	Trichy	November 12-14, 2008	Dr. P.R. Thakura, K.C.Jana
Training on VHDL,Xilinx FPGA, DSP and Embedded system Design.	BIT, Mesra	Mesra, Ranchi	May 9-24, 2008.	Mr. K.C. Jana Ms. Vijay Laxmi
Training on Effective Teaching held at BIT Mesra under TEQIP.	BIT, Mesra.	BIT, Mesra	August-September 2008	All Faculty Members from EEE Dept
Advanced control & signal processing techniques with applications.	AICTE-MHRD SDP, NIT, Rourkela	Rourkela, Orissa	29 th Oct. – 11 th Nov. 2008.	Mrs. A. Mohapatra

Short-term Course attended:

Name of the Course	Organizers	Place	Duration	Name of faculty
Fotovoltaic Electronic Forum "Technologie Per Il Fotovoltaico"	Power Forum, Ferrara, Italy	Ferrara, Italy	17th September, 2008	Ritesh Kumar Keshri

Industrial Training:

Training On	Organizers	Place	Duration	Name of faculty
Power Electronics Application in Traction System.	Chittaranjan Locomotive Workshop	Chitranjan	October 14-15, 2008	Dr. P.R. Thakura, K.C. Jana,

Publications:**International Journals:**

1. S. Ghosh and S. Maka, "A Narx Modeling Based Approach for Evaluation of Insulin Sensitivity", Biomedical signal processing and control (Elsevier publication), Vol. – 4, Issue – 1, January 2009, pp - 49-56.
2. Velega Sreerama Murthy, D. K. Mohanta, Sumit Gupta, "Distribution System Insulator Monitoring using Video Surveillance and Support Vector Machines for Complex Background Images", International Journal of Power and Energy Conversion, Vol. 1(1), 2009.
3. M. Jaya Bharata Reddy and D. K. Mohanta, "Performance Evaluation of Adaptive Network Based Fuzzy Inference System Approach For Location Of Faults On Transmission Lines Using Monte Carlo Simulation", IEEE Transactions on Fuzzy System, Vol. - 16, Issue - 4, August 2008, pp - 909-919.
4. D. Sinha Roy, A.K. Panda and D.K. Mohanta, "Software Reliability Allocation of Digital Relay for Transmission Line Protection using a Combined System Hierarchy and Fault Tree Approach", IET Transactions on Software, Vol. - 2, Issue- 5, October 2008, pp - 437-445.

5. S.G. Kadwane, Amit Kumar, T. Ghose, B.M. Karan, "Sliding Mode And Fuzzy Sliding Mode Control of DC-DC Converter", *Journal of intelligent and control systems*(ACTA Press), Vol. - 36 Issue - 3, 2008, pp -260-265.
6. M. Jaya Bharata Reddy and D. K. Mohanta, "A DSP Based Frequency Domain Approach For Classification Of Transmission Line Faults", *International Journal of Digital Signal Processing* (Elsevier Publication), Vol. - 18, 2008, pp- 751–761.
7. M. Jaya Bharata Reddy and D. K. Mohanta, "Adaptive -Neuro-Fuzzy Inference System Approach for Transmission Line Fault Classification and Location Incorporating Effects of Power Swings", *IET Generation, Transmission & Distribution*, Vol. - 2, Issue – 2, pp – 235-244.
8. Sarbani Chakraborty and Satish Chandra Bera, "Color Signature of Current: a Novel Concept for Current Level Indication", *Sensors & Transducers Journal, IFSA*, Vol. - 93, Issue - 6, Jun 2008, pp - 57-68.
9. M. Jaya Bharata Reddy and D. K. Mohanta, "A Wavelet-Support Vector Machine Combined Approach for location of Transmission Line Faults", Accepted for Publication in *Australian Journal of Electrical & Electronics Engineering*.
10. Velega Sreerama Murthy, K. Tarakanath, D. K. Mohanta, Sumit Gupta, "Insulator Condition Analysis for Over Head Distribution Lines Using Combined Wavelet-Support Vector Machine (SVM)", Accepted for publication in *IEEE Transactions on Dielectrics and Electrical Insulation*.
11. Velega Sreerama Murthy, D. K. Mohanta, Sumit Gupta, "Distribution System Insulator Monitoring Using Video Surveillance and Support Vector Machines", Accepted for publication in *International Journal of Computer Applications in Technology*.
12. Aditya Anil, D. Sinha Roy, D. K. Mohanta, A. K. Panda, "Software Reliability Estimation of Computer Relaying for Transmission Line Protection Using User Oriented Software Reliability Model", *International Journal of Power and Energy Conversion*, In Press.
13. D. Sinha Roy, Aditya Anil, D. K. Mohanta, A. K. Panda, "Software Reliability Evaluation of Digital Relaying for Power Transmission Lines", *International Journal on Electric Power Components & Systems* (Taylor & Francis Publications), In Press.
14. D. Sinha Roy, A. K. Panda, D. K. Mohanta, "Digital Relay Software Reliability Allocation Optimization for Transmission Line Protection", *International Journal of Reliability and Safety (IJRS)*, In Press.

International Conferences:

1. Aditya Anil, D. K. Mohanta, D. Sinha Roy, A. K. Panda, "Computer Relaying Software Reliability Evaluation Using Event Tree", *Proceedings of International Conference on Environment and Electrical Engineering (EEEIC-2009)*, Karpacz, Poland, May 10 -13, 2009.
2. R. K. Keshri, S. G. kadwane and B. M. Karan, "Power Factor Correction with Neural Network Based Zeta Converter", 2008 Region 10 IEEE Colloquium and Third ICIS, Kharagpur, India, December 8-10. Paper ID 399.
3. S.G. Kadwane, B. M. Karan and T. Ghose, "Development of Fuzzy Controller Using 8-Bit Microcontroller for Switch Mode DC Servo Motor Control", Accepted at CSIE 2009 Florida US.

National Conference:

1. D. Sinha Roy, Aditya anil, A. K. Panda and D. K. Mohanta, "A fuzzy approach for reliability evaluation of computer relaying software", *National Conference on Advances in Computational Intelligence Applications*

in Power, Control, Signal Processing and Telecommunications (NCACI-2009) will be held during March. 20-22, 2009 at Silicon Institute of Technology (SIT), Bhubaneswar, Orissa.

Award / Honours Bestowed:

1. Dr. B. M. Karan, Dr. D. K. Mohanta: Program Chair Member, 7th IEEE Conference, organized by Wroclaw University of Technology & Cottbus university of technology (IEEE sponsored), Wroclaw, Poland, held during 5-10 May 2008
2. Dr. D. K. Mohanta Program Chair Member, 4th International Conference on Soft Computing and Intelligent Systems and the 9th International Symposium on advanced Intelligent Systems (SCIS & ISIS 2008), held during Sept. 17-21, 2008 in Nagoya, Japan.
3. Dr. D. K. Mohanta Program Chair Member, 4th International Conference on Natural Computation and the 5th International Conference on Fuzzy Systems and Knowledge Discovery, (ICNC'08- FSKD'08), held during 25-27 August 2008 Jinan, China .
4. Ritesh Kumar Keshri received "Young Researcher Fellowship" from Ministry of University, Italy for one year research work in University of Padova, Italy (January 2008 to December 2008)

Patents Applied:

Sl. No.	Title	Faculties	App. No.
1.	Digital Relay Based On Frequency Domain Approach For Detection And Classification of Power System Transmission Line Faults.	Dr. D. K. Mohanta & M. J. B. Reddy	Indian Patent Application No: 611/KOL/2008
2.	Power System Disturbance Detection, Localization and Classification System Using S-Transform.	Dr. D. K. Mohanta, Dr. B. M. Karan & M. J. B. Reddy	Indian Patent Application No: 612/KOL/2008

Students Activities:

1. International Unnayan 2009 (4th-8th February, 2009)
2. Visit to TISCO, TELCO and PTPS, Patratu for Industrial Tour under the EEE Society

Department of Food Processing Technology



The Department of Food Processing Technology was established in 2006.

Programme Offered:

B.Sc. Food Processing Technology – 3 – year (6- semester)

The Indian food processing industry is one of the largest in terms of production, consumption and export prospects. It has shown high growth in recent years and the Government has set an ambitious investment target for the food-processing sector. Again food safety is a growing concern and there is increasing need to provide assurance about the safety and quality of food to consumers. Developed countries have stringent food safety standards and there is also growing consciousness among Indian consumers about the quality of food products. Thus the opportunities for trained personnel in the field are enormous. With this in mind the Institute has started the above programme.



The major food processing and quality control machinery and equipment available in the Department are as follows. The Food Processing Laboratory is equipped with: S.S.Pulper Machine, Hydraulic Press, S.S.Screw type Juice Extractor, Lug Cap sealing Machine, Refractometer, Homogenizer, Crown Cap Sealing Machine, Digital Thermometer, Digital pH Meter, Can Body Reformer, Hand Can Flanger, Exhaust Box 6' x 1.5', S.S.Vacuum Evaporator, Microwave Oven, Hot Air Oven, Microscope, Baby Boiler, Can Seamer, Steam Jacketed cooking Pan, Vacuum Bottle Filling Machine, Fill Pack Machine, Bottle Washing Machine, Canning Retort, Fruit Mill, Twin Screw Extruder, etc. The Quality Control Laboratory is equipped with: Lyophilizer, Polarimeter, Microscope, Laminar flow clean Air workstation, Autoclave, Hot Air Oven, Lab. Centrifuge, Melting Point apparatus, Digital Colorimeter, Flame Photometer, UV-VIS Spectrophotometer, Precision Balance, Seven Easy pH Meter, Muffle Furnace (10500C), Water Bath, BOD Incubator, Compound Microscope, HPLC, MP based Conductivity Meter, Digital Photoflurometer, etc. Other required equipments are available in the allied Departments of Pharmaceutical Sciences, Biotechnology and Central Instrumentation Facility.

Apart from basic subjects such as Chemistry, Mathematics, Electrical & Electronic Engineering, Energy, Ecology & Environment Science, Material Science, Heat & Mass Transfer, the students will also learn about Food Plant Sanitation, Food Microbiology, Food Composition & Chemistry, Food Bio Chemistry & Human Nutrition, Storage Engineering, Food Preservation, Food Analysis, Fruits & Vegetables Processing, Packaging Technology, Waste Management, etc, with corresponding laboratory courses, and Industrial Tour and Project in final semester. Electives will be in Dairy Technology, Instrumentation Methods of Food Analysis, Post Harvest Technology, Food Biotechnology and Oil Seed & Pulses Technology.

The Department plans to start B.E. and M.E/M.Sc. level programmes in future.

The Department was set up with the initial support of Rs .1 Crore received from ministry of Food Processing Industries G.O.I. Department has conducted/ participated in a dozen awareness programmes on food processing

and has also trained 80 candidates in art of fruit & vegetable preservation on behalf of Department of welfare Govt. of Jharkhand, Ranchi.

The laboratory of the Department is a registered unit under F.P.O. Act and is now registered for 5 years.

Some of the items prepared at the center are being sold at B.I.T.C.C.Stores and appreciated by the residents.

Publications:

1. S.Jha, Ashutosh Mishra and Amit Kumar Tiwari, "Preparation of Jelly from Dietary Fiber Isolated from Cassia fistula and Tamarindus indica seeds" Pharmacognosy Magazine ISSN: 0973-1296 Phcog Mag. Vol 4, Issue 15, Jul-Sep, 2008

Department of Hotel Management & Catering Technology



The Department of Hotel Management and Catering Technology established in January 2003 offers a 4-years (8 semesters) programme leading to a Bachelor's Degree in Hotel Management and Catering Technology (BHMCT) approved by AICTE. The foremost objective of the Department is to produce the most competent hospitality professionals for various Managerial position.

The Department has been declared as 16th best catering college in the country (Survey conducted by CSR – GHRDC, 2008) in just five year of its operation.

The Department has various well-equipped laboratories such as food production Laboratory, food and beverage services Laboratory, Accommodation Operations Laboratory, Front office Laboratory and Bakery. The housekeeping laboratory is one of the best equipped in the country. There is a separate housekeeping and a well-equipped laundry. The departmental and central libraries provide access to a wide range of Hospitality and tourism related books, magazine and research Journals including on line journals to students and faculty members.



Department publishes a Biannual blind refereed national research journal "JOHAR – Journal of Hospitality Application and Research", the first of its kind in India. The maiden issue was released by the then Hon'ble chief Minister of Jharkhand Shri Arjun Munda in March 2006 and since then six issues have been published. Johar is gaining popularity and respect in the academic field for its research contributions.

For the overall developments of the students and to provide real life experiences in the field of event management, the Department organizes numerous programs and events regularly.

Infrastructure Added:

Department has added a well equipped Front Office Lab. with IDS – A Property Management system Software installed in it.

Department has added state of Art Food Production & Bakery Laboratory for the training of students.

Programme offered:

Bachelor of Hotel Management and Catering Technology (BHMCT) - 4 Yr. (8 Semester Program)

Project Completed:

Department successfully completed a Project "Six-month Certificate course in Accommodation Operation" Sponsored by Department of Welfare, Govt. of Jharkhand.

Department successfully completed a Project "15 days training for Tourist Guide" sponsored by Department of Tourism, Govt. of Jharkhand.

Seminar / Conferences / Short Term course conducted by the Department:

To commemorate the World Tourism Day, a one day seminar on "Tourism: Responding to the challenge of climate change" was organized by the Department of Hotel Management and Catering Technology, BIT, Mesra on 27th September 2008.

Department of Hotel Management and Catering Technology, BIT, Mesra, Ranchi conducted Short Term Training Programme of Kitchen Equipment and its Application for the Hostel staff of BIT, Mesra.

Seminar(s)/ Conferences/ Symposium(s)/ Short-term Course(s) attended by faculty members of the Departments:

Attended by (Faculty Names)	Seminar(s)/ Conference/ Symposium(s)/ Short-term Course(s)	Organized by	Date	Venue
Prof. Sitesh P. Srivastava Mr. P.R.Sahoo Dr. Sonia Gupta Mr. Praveen Mr. A.K Shandilya Ms. Rajeshwari Mr. Abhishek Jana Mrs. Snigdha Priya Mr. Nishikant Mr. Amit Saran Mr. Gautam Mrs. Pratima Ekka	Workshop on effective Teaching	BIT Mesra	Aug – Sept.'08	BIT
Mr. Sanjay Kumar	Workshop on Rural Tourism and Cluster Development	Bankers Institute of Rural development, Lucknow	Nov. – 10 -14, 2008	Shanti Niketan, West Bengal
Mr. Abhinav Kr. Mr. Gautam	Seminar on "Role of Tourism as Rural Enterprise"	Dept. of Industries, Govt. of Jharhand	Nov. 2008	Ranchi
Mr. Gautam	Seminar on "Quality control: from farm to fork"	Birsa Agriculture University, Kanke	Nov. 2008	Ranchi
Mr. Amit Mr. Sanjay	Seminar on "Lean Manufacturing"	Institution of Engineering, Jharkhand state centre & BIT Mesra	Aug. '08	Ranchi
Dr. Sonia	Seminar on "Intellectual property and innovation management in Knowledge era"	National Research Development corporation supported by DST, Govt. of Jharkhand, Ranchi	Sept. '08	Ranchi
Mr. Sanjeev Kumar Mr. Amit Saran	Workshop on Research and Development in Engineering Education	BIT Mesra	Aug. '08	Ranchi

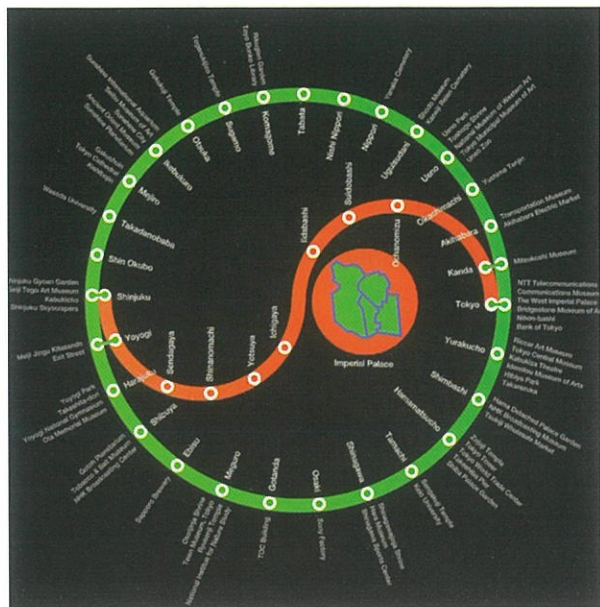
Publications:

1. Mr. Praveen Srivastava contributed a chapter in the text book - "Introduction to Hospitality Industry: A Text Book" (As per AICTE Syllabus) published by Aman Publication, ISBN 8182040469.
2. Mr. Abhinav Kr. Shandilya contributed two chapters in the text book - "Introduction to Hospitality Industry: A textbook", (As per AICTE Syllabus) published by Aman Publication, ISBN 8182040469.
3. Mr. Abhinav Kumar Shandilya authored study material for B.Sc. in Hospitality and Hotel Administration course being offered by Uttarakhand Open University for paper Food Production.
4. Mr. Praveen Srivastava authored study material for B.Sc. in Hospitality and Hotel Administration course being offered by Uttarakhand Open University for paper Accommodation Operation.
5. Mr. Praveen Srivastava authored study material for B.Sc. in Hospitality and Hotel Administration course being offered by Uttarakhand Open University for paper Room Division Operation.
6. Ms. Rajeshwari Chatterjee presented a paper titled "Effectiveness of Simulation as a training method with reference to hospitality students" in National seminar on "Indian Hospitality Industry – Contemporary Issue" held at Durgapur, West Bengal in Jan '09.
7. Ms. Rajeshwari Chatterjee presented a paper titled "The attitude of rural population toward education" in All India people's Technology congress – FOSET held at Kolkata, West Bengal in June 2008.
8. Mr. Sanjay Kumar presented a paper "Role of Infrastructure in Tourism" First grand conclave of Jharkhand architects, JHARCHEX '08 held at Ranchi club, Ranchi from April 11th – 13th, 2008.
9. Dr. Sonia Gupta presented a paper titled "Changing trends in family environment – Changes occurring in the food consumption pattern of oraon Tribe residing near Ranchi" organized by Mata Jeeja Bai Government Girls P.G. college, Motitabela, Indore, M.P. on 16-17th Jan '09.
10. Dr. Sonia Gupta presented a paper titled "Study on effects of Human Resource Policies on the employees of two leading hotel groups in Ranchi" organized by Faculty of Management studies, Gurukul Kangri University, Haridwar, Uttaranchal on August, 2008.
11. Ms. Rajeshwari Chatterjee published a paper title "Setting up of Chain Linked Food Processing Units using NBMS model through self help groups" in the Alternative Vol- VII (I & II)
12. Ms. Rajeshwari Chatterjee published a paper title "Eco Tourism to protect the threatened Bio diversity of Sunderban Biosphere Reserve" in Journal of Hospitality Application and Research Vol. 4 (2)

Students Activities:

1. Students participated in the seminar "Tourism – responding to the challenges of climatic change" organized by Department of HMCT, BIT Mesra to commemorate World Tourism Day on 27th September '08.
2. Students of the Department participated in Dramatic competition organized at Springfest, IIT, Kharagpur.
3. Students of the Department got gold medal in triple jump and various other events. They were also selected in the Institute cricket team.
4. Students of the Department participated in All India Chef Competition organized by Banarsi Das Chandiwalla Institute of Hotel Management, New Delhi.

Department of Information Science



Information is a central resource in many enterprises. The effective management of information resources is critical to successful organizational performance. Business, industry, government, education, research & development, library and community organizations recognize the need to manage and use information as a strategic resource. Consequently, there is a growing market and need for professionals who can create, organize, and manage information that people want to use and in ways that facilitate their work. With this broad vision the Department of Information Science was established in 1993.

The MIS program educates information professionals who understand information life cycles, the information technologies that support them, and the ways that people use information systems. It emphasizes the analysis and

design of information and systems that can be effectively used by people.

Being an interdisciplinary program the MIS program is designed to give the skills in information technologies to prepare for careers in such fields as information management, systems analysis, information brokerage, competitive intelligence, libraries and database development. The program emphasizes the human context of current and future technology. The education one receives will prepare one to compete for jobs in the information professions.

Programmes offered:

1. M.Sc. Information Science
2. Ph.D.

Seminar / Conferences / Short Term Courses attended by the faculty during 2008-09:

1. Dr. Bhaskar Karn attended 1st National Conference of Jharkhand Information & Library Association held at RIMS, Ranchi
2. Dr. Bhaskar Karn attended International CALIBER 2009 organized by Pondicherry University, Pondicherry

Publications:

International Journals

1. Darbari Manuj, Karn Bhaskar, Bansal P.K., Goel Rajesh: "Information Design for Urban Traffic Simulation". Georgian Electronic Scientific Journal: Computer Science and telecommunication. No. 1(15),2008
2. Darbari Manuj, Karn Bhaskar, Ahmed Sayed Sayeed, Singh Vivek Kumar : "Exploring Ubiquitous Computing Using Open Frame Work For Controlling Bus Depot Management". Ubiquitous Computing and Communication Journal Vol. 3, No. 3, June 2008.
3. Darbari Manuj, Karn Bhaskar, Singh Vivek Kumar, Ahmed Sayed Sayeed: "Integrating Natural Language Requirement and OPEN Process Activity Theory Model for Platform Independent Web Modeling". International Review on Computers and Software (IRECOS), Vol. 3, No. 3, May 2008, pp-283-287.

4. Darbari Manuj, Karn Bhaskar, Singh Vivek Kumar: "Validation of OPEN Process Activity Model Using OCL Framework". International Review on Computers and Software (IRECOS), Vol. 3, No. 2, March 2008, pp-141-144.
5. Darbari Manuj, Karn Bhaskar : "Enterprise Modeling Using Multi-Agent Open-AT Framework" Journal of International Technology and Information Management. Vol. XX, Issue X.

International Proceeding

1. Karn Bhaskar, karmahe Rajesh: "Digital Content Generation And Their Management At A.I.R., Ranchi: A Case Study" proceedings of the International CALIBER 2009.

National Porceeding

1. Karn Bhaskar : " Information Architecture" proceedings of the 1st National Conference of Jharkhand Information & Library Association

Invited Talks:

1. Dr. Bhaskar Karn delivered an Expert lecture on " Fuzzy logic and its Application in Library & Information science" at 1st National Conference of Jharkhand Information & Library Association held at RIMS, Ranchi on September, 2008.
2. Dr. Bhaskar Karn delivered an Expert lecture on " Information System " at QIP sponsored by AICTE in the Department of Pharmaceutical Sciences, B.I.T. Mesra on May 29, 2009.

Other Important Information suitable for inclusion:

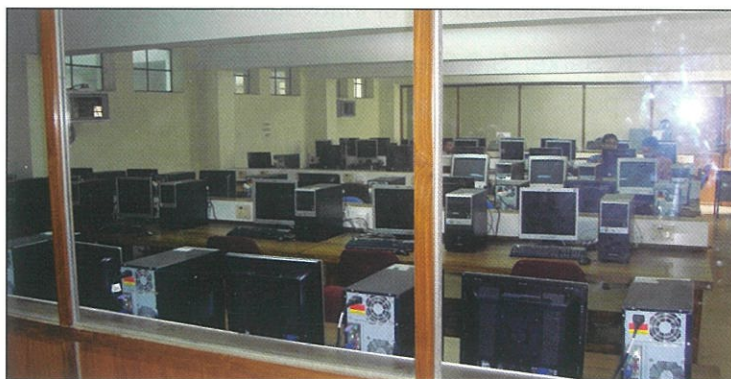
Board of Study meeting was held during April – 09 to update the course curriculum for 2009 batch students.

Department of Information Technology & MCA



The Department of "Information Technology and MCA" is a personification of the Institute's vision in the field of IT and its applications. It offers the programme, BE (IT) since 2001 and MCA programme since 1984. The Department is committed to producing professionals who will be up to the challenges of implementing viable and sound IT oriented solutions to various emerging domains. With a rapidly increasing demand for such professionals, the Department is gearing up to the challenge of introducing its students to the demands of the industry from the very outset of their technical education program.

Both the courses IT & MCA offered by the Department have been tailored to be consistent with the current needs of the IT Industry. The course structure has been designed to incorporate various aspects of IT applications that are emerging as thrust areas in various sectors which will stimulate the students urge for learning. Introduction of courses like Bio Informatics, Computer Vision, Speech Recognition, Communication Technologies etc. have given the Department a multidimensional facet. With a judicious mix of computer science, communication and hands on activities, the courses are laid out in an easy to understand manner for the students. The students also have ample opportunity to participate in summer trainings, non credit industry trainings and also in credited project activities.



Programmes Offered:

1. Bachelor of Engineering in Information Technology (BE - IT)
2. Master of Computer Application (MCA)

Projects:

Ongoing Project:

Name of the Teacher	Title of the project	Duration (Years)	Funding Agency	Amount (Rs. In Lakhs)
Dr. G. Sahoo	DNA Based Computing For Solving NP Complete Problems	3	UGC	8.021
Dr. G.Sahoo & Prof. S.Dutta	PG Diploma in Language Technology	5	Department of Information Technology, Govt. of India	64

Publications:

International Journals:

1. Suresh Kumar Mandilli, V.S.Shankar Sriram and G.Sahoo, Security Enhancement for ARAN (Authenticated Routing for Ad Hoc Networks), International Journal of Computer Science and Applications, Vol.1, P.197, Dec.2008.
2. V.S.Shankar Sriram and G.Sahoo, A Mobile Agent Based Architecture for Securing WLAN, IJJCE 2009
3. V.S.Shankar Sriram, Ashish Singh and G.Sahoo, Methodology for securing wireless LANs against Wormhole attack, IJJCE2009
4. Anup Kumar Keshri, Barda Nand Das, Dhreesh Kumar Mallick, Rakes Kumar Sinha, "Parallel Algorithm to Analyze the Brain Signals : Application on Epileptic Spikes", Journal of Medical System DOI 10-1007/S10916-009-9345-y
5. B. K. Sarkar, S. S. Sana, "A Modified Version of Jacobi Approach", accepted for publication in the International Journal of Innovative Computing and Applications(IJICA), Interscience publication.
6. B.K. Sarkar, S.S.Sana, and K.S.Choudhury, "Accuracy Based Learning Classification System", accepted for publication in the International Journal of Information and Decision Sciences (IJIDS), Interscience publication.
7. B.K. Sarkar, S.S. Sana: " A hybrid approach to design efficient learning classifiers", published in June, 2009, in the International Journal, Computer and Mathematics with Applications (Elsevier).
8. S.S. Sana, B.K. Sarkar: "The effect of stock, price and advertising on demand – an EOQ model", published in the 1st issue of 2009 in the International Journal of Modeling, Identification and Control, publisher: Interscience private limited, U.K.
9. B.K. Sarkar and S.S. Sana: "Two Efficient Parallel Algorithms for Matrix Transpose", published in the 1st issue of 2009 in the International Journal of Algorithms, Computing and Mathematics, EP Publication.
10. D.Shanthi, G.Sahoo and Dr. N.Saravanan "Input Feature Selection using Hybrid Neuro – Genetic approach in the diagnosis of Stroke". International Journal of computer Science and Network Security, ISSN : 1738-7906, vol.8, No.12, pp.99-107,2008.
11. D.Shanthi, G.Sahoo and Dr. N.Saravanan "Comparison of Neural Network Training Algorithms for the prediction of the patient's post-operative recovery area", Journal of Convergence Information Technology, December – 2008 (Published On-line)
12. D.Shanthi, G.Sahoo and Dr. N.Saravanan "Evolving Connection Weights of Artificial Neural Networks Using Algorithms with application to the prediction of Stroke Disease, "International Journal of Soft computing, Medwell Publishers, 2009.
13. D.Shanthi, G.Sahoo and Dr. N.Saravanan "Designing and Artificial Neural Network Model for the Prediction of Thrombo-embolic Stroke" International Journal of Biometric and Bioinformatics, 2009.
14. R.Majhi, G.Panda and G.Sahoo "Efficient Prediction of Stock Market Indices using Adaptive Bacterial foraging Optimization (ABFO) and (BFO) Based Techniques" Accepted for Publication in International Journal of Expert Systems with Application.
15. G.Sahoo and R.K.Tiwari "Hiding Secret Information in Movie Clip : A Steganographic Approach" Accepted for Publication in International Journal of Computing and Application.

16. G.Sahoo and R.K.Tiwari "Hiding Secret Data in Untraditional MATLAB images" Accepted for publication in International Journal of Computer, Mathematical Science and Application.
17. R.K.Tiwari and G.Sahoo "An Imperceptible double layer data protection by Steganography" Accepted for publication in International Journal of Intelligent Information Processing.
18. Tapas Kumar, IMS Lamba and G.Sahoo "A New Evolution Algorithm Based on Cellular Automata" CiiT International Journal of Automata and Autonomous Systems, April 2009 (online).
19. K.Mukherjee and G.Sahoo "A Framework for Achieving Better Load Balancing and Job Scheduling in Grid Environment" International Journal of Information Technology & Knowledge Management, Vol. 2, No.1, 2009.
20. B.K.Singh, G.Sahoo and B.L.Raina "MAHI : Machine and Human Interface" Accepted for publication in International Journal of Image Processing.

International Conferences:

1. Sounak Paul, S.Nandi, I. Singh "A Dynamic Balanced-energy Sleep Scheduling for Heterogeneous Wireless Sensor networks", 16th IEEE International Conference on Networks (ICON-2008), December 2008.
2. Sandip Dutta, Avijit Kar, N.C.Mahanti and B.N. Chatterji, "Network Security Using Biometric and Cryptography", International Conference on Advance Concept for Intelligent Vision System (ACIVS – 2008), from 20th October to 24th October 2008.

Workshop attended:

Name of the Programme	Organizers	Place	Duration	Name of the Faculty
Leader Building Workshop	IUCEE	Infosys Mysor	06th July-10th July 2009	Mr. Anup Kumar Keshri

Department of Management

The Department of Management was founded in 1979 to impart holistic management education to potential young managers and has completed 30 glorious years of its existence. The programme lays special emphasis on nurturing personal integrity and social responsibility among the students. With its massive infrastructure base of well-equipped library and computer labs, seminar and conference rooms, the Department of Management imparts excellent contemporary education to the students. The Department has maintained its academic leadership in the eastern region of India by its ambitious plans and commitment to qualitative requirements of the professional world. Some of the salient activities and initiatives taken by the Department during the last financial year are as follows:

1. The bi-annual journal of the Department 'The Alternative' and quarterly newsletter, 'Manage-a-Bit' have evoked interest in the management community. Many new institutions have shown their interest for subscription as well as in obtaining it on exchange basis.
2. During the year 2008-09, the campus placement of the students of the Department has been overwhelming. Some of the salient recruiters of the year were IDBI Bank, Reliance Communication, Tata Tele Services, Axis Bank, IBM, ICICI Bank, ICICI Prudential and Bajaj Allainze etc.
3. The annual B-school students' festival. SAMAAGAM 2009 was organized during April 2009 in which students of reputed Management Schools had participated.

Infrastructure Added:

The Department shifted to its newly constructed, well furnished and fully equipped premises.

Programmes offered:

Following programmes are being offered by the Department:

1. Ph. D
2. Master of Business Administration (2 year Full - Time / 3 year Part - Time)
3. Bachelor of Business Administration (3 year full - time)
4. M.E. (Quality Engg. & Management)
5. M.E. in collaboration with Institute of Engineers
6. PGPMI (Post Graduate Programme in Management and Insurance)

Proposed new Programmes:

1. MBA in Health Care Management
2. MBA with specialization in Entrepreneurship Development

Publications:

National Journals:

1. S.K. Bose, Vinita Sahay and Harvinder Singh "Mélange: The Highway Mall" published in the book 'Select Cases in Management' during 2008 by Allied Publishers Pvt. Ltd., A-104, Mayapuri Phase II, New Delhi.(Page:95-118).
2. S.K. Bose, D. D. Mukherjee "An Empirical Study of Quasi-Equity of SMEs : Evidence from the Auto-Ancillary Manufacturing Units of Jharkhand"- Hyderabad Hide Abstract, The Icfaian Journal of Management Research, Vol. 7, No. 10, pp. 35-47, October 2008.

3. S.K. Bose, D. D. Mukherjee "On the Merits of Equated Monthly Installments Method of Term Financing: Some Analytics and Arithmetics", HyderabadHide Abstract, Icfai Journal of Management Research, Vol. 8, No. 01, pp. 73-93, February 2009.
4. U. Baul "Managing Technology in a Large Scale Public Sector Organization", "The Alternative" Journal of Management Studies and Research, Birla Institute of Technology, Mesra, Vol: VII, No:1&2, October'07 – September'08
5. U. Baul "Connecting Relationship to Excellence; Strategies of Buyer-Seller Interactions", "Growth" Journal of the Management Training Institute, SAIL, Ranchi, Vol.36, No.1, April-June '2008
6. Shradha Shivani, Tanmay Chattopadhyay "Do Multiple Time Consumers Also Observe Imperfectly? : The Case of Automobile Consumers in India", Indian Journal of marketing, Vol XXXIX, No 6, June 2009. ed
7. Vijay Agarwal "Resurgence through Consolidation: A spurt in steel Industry" Journal of Management of Institute of Management Studies Dehradun Vol. 6 Issue 1, June-December, Pragmaan-2008.
8. Vijay Agarwal "Corporate Excellence in Global resilience – Role of a CFO through effective financial planning" Journal of Management Training Institute, SAIL, Ranchi Vol.36, No 1 April – June, GROWTH-2008.
9. Vijay Agarwal "Micro and Small Enterprises-An engine of growth with special reference to Khadi and Village Industries" The Alternative, Journal of Department of Management B.I.T. Mesra ISSN No. 0973-0451. Vol. VII No.1&2 October' 2007-September'2008.
10. Vijay Agarwal "Significance of Knowledge Capital in Indian Economy: A Paradox" Bizcraft, The Journal of Management, SRMS College of Engineering and Technology, Bareilly Vol. III. No.1 March-2009
11. Rohit Pandey "Globalization: opportunities and Challenges", Current Labour Report, 2008, Vol.24 Part1,17,CLR, Mumbai.
12. Shelly Srivastava, authored study material for B.S.C. in Hospitality and Hotel Administration course being offered by Uttarakhand open university, paper (Hotel Accounting).
13. Amitabh Verma, "Integrating trust and computer self efficacy in virtual banking: an empirical assessment of coustmer acceptance of banking information system (BIS) in India" GYANPRATHA of Accman Institute of New Delhi, ISSN 0975-0584.
14. Anand Pd. Sinha "Managing Technology in a Large Scale Public Sector Organization", The Alternative, Vol: VII, No:1&2, October'07 – September'08

International Publications:

1. S.K. Bose, Joydeep Chatterjee "Challenges faced in Indian tinplate packaging industry: An analysis." , Journal of Contemporary Management Issues published by University of Split, Faculty of Economics, Matice hrvatske 31, 21000 Split, Croatia in June, 2008 issue Management, Vol. 13, 2008, 1, pp. 73-89.
2. S.K. Bose, Harvinder Singh "My American Cousin: A Comparison Between Indian and US Malls", Journal of Asia-Pacific Business (Volume 9 Issue: December, 2008) published by Raj Soin College of Business Wright State University 3640 Colonel Glenn Hwy Dayton, Ohio 45435.
3. S.K. Bose, Amitabh Verma "Biometrics : Management of Uncertainty and Scepticism in the age of Technologization" , CiiT International Journal of Biometrics and Bioinformatics ISSN 0974-9675 & Online: ISSN 0974-956X Issue: June 2009, DOI BB062009001

4. Manju Bhagat, Rajib Dhar "Techniques of sourcing candidates: An Exploration of the current strategies of recruitments", European Journal of Social Sciences, Interscience Vol.6 No.3-2008.
5. Sharadha Shivani, Tanmay Chattopadhyay "Consumer Imperfection in Observation --- Is it a Boon for Manufacturers? The Case of Automobile Sector in India", IJEHV, Vol 2 No1, 2009, Published by Interscience, UK."
6. Taushree Dutta, "Quality of life of HIV- infected people across different stages of infection" Journal of Happiness Studies, Springer, 2008.
7. Rohini Jha, Shradha Shivani "Towards a Methodology for Defining Implementation Strategies for E-governance Adoption: Indian States". International Journal of Applied Management and Technology, Walden University, USA, Vol 5, No 3, 117 to 138, 2008.

Conference Papers: National

1. U. Baul, "Integration of Technology & Management: Innovative Competitiveness Key for Growth". International Conference on 'Managing for a Sustainable Economy' jointly organized by PES Institute of Technology and Indiana University of Pennsylvania, PESIT Campus, Bangalore, 2-3rd Jan '2009
2. Dr. Manju Bhagat, "Job stress and coping process and intentions to leave: A study on software professionals working in India," Indian society of labour Economics conference, Lucknow, 13-15 December 2008.
3. Dr S Shivani, Tanmay Chattopadhyay "Consumer imperfection in observation: Is it a boon for manufacturers? --- The case of automobile sector in India", NASMEI International Conference 2008, Organised by North American Society for Marketing Education in India and Great Lakes Institute, Hyderabad December 22-23, 2008
4. Vijay Agarwal "Importance of Corporate Governance in Indian manufacturing industries" 'Corporate Governance' IIPA- New Delhi, 18th – 20th July- 2008.

Conference Papers: International

1. Utpal Baul, "Influencing Organizational Buying Behavior – A Catalyst to Building Relationships" International Conference – Marketing Trends, organized by European School of Management, Paris, 16th-17th Jan'09.
2. Manju Bhagat, "Networking: The sourcing technique of recruitment" Society for advancement of management, Arlington, Virginia, USA. April 22-24, 2008.
3. S Shivani, "Approaches to Measurement of Brand Equity", Proceedings of Oxford Business and Economics Conference, held at Oxford University, UK, June 22-24, 2008

Awards / Honours Bestowed

Minakshi Kumari and Ravi Tiwari, students of ME Quality Engineering and Management presented a paper on 'Quality Assessment Tool for enhancing the effectiveness and social responsibility of Indian Television News Channels' and got 'S.K. Mukherjee Gold Medal for Research Excellence in National students Research convention, "Anveshan-09" at Bengal engineering and Science University (BESU) Howrah. They were declared first and awarded a cash prize of Rs one lakh and International Scholarship worth 2200 Euros per month for France and Netherland.

Student Activities:

1. All India B-School Students Festival, SAMAAGAM 2009 was organized by the Department in April'2009
2. The Department organized a student workshop on Global Economy: An overview, on 8th Sept'08

3. The Department organized the Induction Programme for the freshers of 2009-10 batch in July 09
4. The Department organized the farewell programme for the outgoing batch of MBA Students in April '09

Other Information:

Guest Lectures:

1. Ms Jana Comeau, faculty, University of New Brunswick, Canada has delivered a lecture to the MBA students of 2k7 and 2k8 batch on "Web Technologies for E-Business".
2. A guest lecture was organised by the Department Of Management on the 16th of March 09'. Dr. AMAANULLAH ANSARI, educated the students on the essentials of Multiplier Effect, its Uses In Strengthening the Infrastructure of the country (especially that of Rural India).
3. Mr. Bishwajit Choudhary senior faculty MTI, SAIL gave a lecture on financial aspects of Organization on 28th February 09'.
4. Prof Suresh P Sethi, Charles nancy Davidson distinguished professor of Operations management in School of management, The University of Texas at Dallas USA delivered a lecture to the students on "i3: Incomplete Inventory information, the next Challenge".
5. Mr Harbinder Singh, Faculty Birla Institute of Management Technology, NOIDA delivered a lecture on Consumer's Shopping Experience in Malls

Department of Mechanical Engineering



Since its inception in 1955, the Department of Mechanical Engineering has a wide reputation for the quality of teaching and research. During the preceding year it has been awarded the top grades for both teaching and research activities from independent and government bodies. The excellent laboratory facilities, modern computer clusters, systematically designed curriculum, and dedicated faculty members make this Department a dynamic place to study. Graduates from the Department of Mechanical Engineering are highly employable and sought after by many prestigious companies. There is also an excellent career centre on campus, which helps the students to get entry into Multinational companies.

Infrastructure added:

1. Sound meter (AICTE Project)

Programmes Offered:

1. B.E. (Mechanical Engineering)
2. M.E. (Mechanical Engineering)
Specialization:
 - a. Heat Power
 - b. Design of Mechanical Equipments



Projects Sanctioned:

Name of the Principal Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Dr. K.K.Srivastava	Studies on acoustic Properties of Glass Fiber Reinforced Plastics (2009-11)	Rs. 6.50 Lakhs	AICTE
Sri D.B.Lata	Design and Development of Hydrogen Assisted Dual Fuel Engine (2009 –11)	Rs. 10.00 Lakhs	Deptt. of Industries, Govt. of Jharkhand

Projects completed:

Name of the Principal Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Dr. Ashok Misra	Cold Storage and Dehydration of Vegetables through single Solar-Biomass Hybrid System for Tribal States (2005-2008)	Rs. 66.80 Lakhs	Ministry of Food Processing Industries Govt. of India

Publications:**International Journals:**

1. Vishal S. Chauhan and Ashok Misra, "Effects of Strain Rate and Elevated Temperatures on Electromagnetic Radiation Emission during Plastic Deformation and Crack Propagation in ASTM B 265 Grade 2 Titanium Sheets", Journal of Materials Science 43 (2008) 5634-5643.
2. R.K. Misra, Sandeep Kumar, K. Sandeep and Ashok Misra, "Dynamic Analysis of Banana Fibers Reinforced high-density polyethylene/poly (ϵ -caprolactone) composites", Journal of Mechanics of Materials and structures, 3 (2008) 107 –126.
3. R.K. Misra, Sandeep Kumar, K. Sandeep, Ashok Misra, "Some Experimental and Theoretical investigations on Fire Retardant Coir/Epoxy Micro-composites", Journal of Thermoplastic Composite Materials, 21 (2008) 71 - 101.

Students Activities:

1. The Biennial Tech-Fest, MEDHA 2009, was organized by the Mechanical Engineering Society of the Department during January 22 – 24, 2009.
2. The Student Chapter of Indian Society of Heating, Ventilation and Air-conditioning Engineers (Indian Division of American Society of Heating, Ventilation and Air-conditioning Engineers) was established in the Department of Mechanical Engineering.

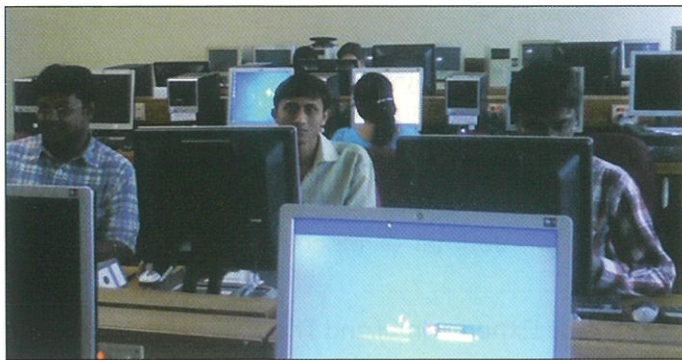
Other information:**Consultancy:**

Title of service provided	Name of recipient industry	Broad area (subject) of service
Pre-dispatch inspection of Solar devices	JREDA	Renewable Energy
Preparation of Tender Documents	JREDA	Renewable Energy
Technical evaluation of proposal on Energy Park	JREDA	Renewable Energy
Design and Development of utility equipments	JREDA	Renewable Energy
Design and Development of over head Cranes	HEC, Ranchi	Design and Drawing
Control of over brake in diversion tunnel	J.A.L. Ltd. Himachal Pradesh	Optimization of Pressure setting of Hydro Boomer.
Financial Planning	Genesis Kolkata	DPR for Bank Sector
Rock ledge Blasting	SLHEPP 2000 MW Assam	Planning and control of Mechanical Energy /Machines in Drilling & Excavation.
Testing of Materials	Various Agencies	Mechanical Property
Product Inspection	National Innovation Foundation, Ahmedabad	Design and Fluidics

The Oxen-driven generator set (Patent No. 288/KOL/2006: Dr. Arbind Kumar) has been well appreciated by the Government of Jharkhand and experts at large. The order for commercial product has been offered by:

1. The Department of Agriculture, Govt. of Jharkhand (2008).
2. The Department of Science & Technology, Govt. of Jharkhand (2008).
3. Tata Steel Rural Development Society, Jamshedpur (2008).

Department of Pharmaceutical Science

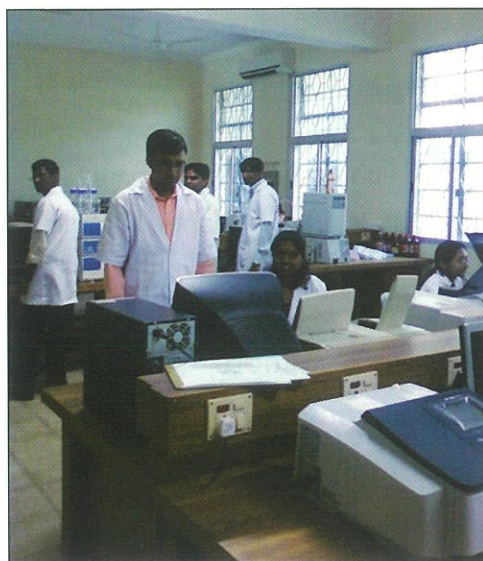


The Department of Pharmaceutical Sciences was established in 1972, recognizing the potential of this emerging field of Technology. It has recently shifted to the New Pharmacy Building which was inaugurated by Mrs. Aparna Sengupta, Honorable Minister of Science and Technology, Government of Jharkhand in the month of September 2008.

The Department is a lively, stimulating and a robust scientific community with highly qualified and competent

academic staff and a large number of postgraduate students, research fellows and visiting scientists. It is well equipped for both teaching and research activities, which are undertaken across the whole spectrum of Pharmaceutical Sciences. The Department encourages and supports studies involving a range of research strategies and have particular expertise and experience in both quantitative and qualitative research methods including studies of innovation.

The Department runs both B.Pharm. and M. Pharm in Pharmaceutical Sciences- Specializations offered are Pharmaceutics, Pharmaceutical Chemistry, Pharmacology and Pharmacognosy. The courses are recognized by both Pharmacy Council of India and AICTE. The Department also provides facilities for Doctoral Research in various fields of Pharmaceutical Sciences. The Department has state of the art Instrumental Analysis and Molecular Modeling laboratories for this purpose.



The Department is supported by two major projects namely FIST of DST and SAP of UGC.

Infrastructure added:

1. Addition of equipment:
2. Microwave Organic Synthesis system
3. Milli Q Water Purification Unit (Millipore)
4. Non Invasive Blood Pressure System
5. Plethysmometer
6. Randal Selito Instrument
7. Electro von frey Instrument
8. Table Top anesthesia machine
9. Software :
10. Schrodinger suite with Maestro, Glide, Phase. QikProp, Strike and Macromodel
11. Scigress Explorer Ultra 7.0 with ADME and Statistica

Programmes offered :

1. B. Pharm
2. M. Pharm in 4 specializations :
 - Pharmaceutical Chemistry
 - Pharmaceutics
 - Pharmacology
 - Pharmacognosy
3. Doctoral programme

Additional Programmes Started :

1. M. Pharm in Clinical Research in collaboration with LCRA, Bangalore
2. M.S. in Clinical Research and Pharmacovigilance in collaboration with LCRA, Bangalore
3. Post Graduate Diploma in Bioanalytical Techniques in collaboration with LCRA, Bangalore

New Programmes proposed :

- Quality Assurance and Drug Regulatory Affairs
- Pharmaceutical technology
- Herbal Technology
- Pharmaceutical biotechnology
- Hospital Pharmacy
- Post Graduate Diploma in Pharmacovigilance in collaboration with LCRA, Bangalore

Projects:**Ongoing Projects :**

Sl. No.	Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the project	Expected Time of Completion
1.	SAP :Improvement of Infrastructure for Total Quality Management (TQM) and Good Laboratory Practice (GLP)	Head, Department of Pharm. Scs., BIT, Mesra	UGC	Feb 2007	65 lacs	5 years	Feb 2012
2.	FIST: Advancement of Facilities for Undergraduate and Postgraduate Teaching and Research	Head, Department of Pharm. Scs., BIT, Mesra	DST	Feb 2006	38 lacs	5 years	Feb 2011
3.	Creation of Infrastructure facilities including extension services under the scheme for human resource development	Department of Pharmaceutical Sciences	MFPI	Dec. 2004	50 lacs	5 Years	Dec 2009

4.	Design, Synthesis and Evaluation of some Novel DAMNI analogs as NNRTIS with broad spectrum chemotherapeutic properties	Dr. Swastika Ganguly	AICTE	March 2008	8.37 lacs	2 years	March 2010
5.	Monitoring of A.D.R. of Newly Introduced drugs in Patients and awareness about ADRs and Banned drugs among health in Jharkhand	Dr. R. N. Gupta	UGC	April 2007	0.80 lacs	2 years	April 2009
6.	Formulation development and Evaluation of Antiviral Drugs.	Dr. R. N. Gupta	UGC	April 2008	0.90	3 years	April 2011
7.	Synthesis, Evaluation and Molecular Modeling studies of Some Imidazole analogs as potential Non Nucleoside Reverse Transcriptase Inhibitors	Dr. S. Ganguly	UGC	May 2009	01.40 lacs	2 years	May 2011
8.	Formulation and characterization of multiparticulate pulsatile delivery of methotrexate based on chronotherapy for rheumatoid arthritis and its in vitro studies	Mr. A. Dev	UGC	May 2009	01.50 lacs	2 years	May 2011
9.	Causes of depression, length of inpatient stay, hospital re- admissions and the prescription patterns in psychiatric hospitals: proposition of community psychoeducation in Jharkhand.	Mr. S.P. Pattanayak	UGC	May 2009	1.25 lacs	2 years	May 2011
10.	Documentation, Identification and Indexing of Medicinal and Aromatic Plants of Jharkhand	Dr. D. Sasmal and Dr. S. Jha	Govt. of Jharkhand	April 2009	22.00 lacs	1 year	2010

Ongoing Research Projects in collaboration with other Departments of the institute and other National Level Institutes:

Sl. No.	Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the project	Expected Time of Completion
1.	Study of Anti-oxidative and DNA protective properties of Anthocyanins	Dept. of Pharm. Scs. + Dept. of Bio-technology	UGC	Jan 2009	15.13 lacs	3 years	Jan 2012
2.	Screening of Bioactive compounds synthesized from Aleuritic acid	Dept. of Pharm. Scs. + Indian Institute of Natural resins and Gums, Ranchi	ICAR	Sep 2008	22.00 lacs	2 years	Feb 2010
3.	Comparative evaluation of Physicochemical, anti-inflammatory, and hypo-lipidemic properties of Oleogum resins from Boswellia serrata, Commiphora mukul and Commiphora wightii (Indian plants)	Dept. of Pharm. Scs. + Indian Institute of Natural resins and Gums, Ranchi	ICAR	Apr 2008	02.15 lacs	2 years	April 2010
4.	Grid Based Virtual Screening for TB (GRIDVISIT)	Dept. of Pharm. Scs + Computer Science	AICTE	March 2008	6.50 lacs	2 years	March 2010

Additional Projects Sanctioned:

Sl. No.	Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the project	Expected Time of Completion
1.	Formulation development and Evaluation of Antiviral Drugs.	Dr. R. N. Gupta	UGC	April 2008	0.90	3 years	April 2011
2.	Study of Anti-oxidative and DNA protective properties of Anthocyanins	Dept. of Pharm. Scs. + Dept. of Bio-technology	UGC	Jan 2009	15.13 lacs	3 years	Jan 2012
3.	Screening of Bioactive compounds synthesized from Aleuritic acid	Dept. of Pharm. Scs. + Indian Institute of Natural resins and Gums, Ranchi	ICAR	ep2008	22.00 lacs	2 years	Feb 2010

4.	Comparative evaluation of Physicochemical, anti-inflammatory, and hypo-lipidemic properties of Oleogum resins from <i>Boswellia serrata</i> , <i>Commiphora mukul</i> and <i>Commiphora wightii</i> (Indian plants)	Dept. of Pharm. Scs. + Indian Institute of Natural resins and Gums, Ranchi	ICAR	May 2008	02.15 lacs	2 years	May 2010
5.	Synthesis, Evaluation and Molecular Modeling studies of Some Imidazole analogs as potential Non Nucleoside Reverse Transcriptase Inhibitors	Dr. S. Ganguly	UGC	May 2009	01.40 lacs	2 years	May 2011
6.	Formulation and characterization of multiparticulate pulsatile delivery of methotrexate based on chronotherapy for rheumatoid arthritis and its in vitro studies	Mr. A. Dev	UGC	May 2009	01.50 lacs	2 years	May 2011
7.	Causes of depression, length of inpatient stay, hospital re- admissions and the prescription patterns in psychiatric hospitals: proposition of community psychoeducation in Jharkhand.	Mr. S.P. Pattanayak	UGC	May 2009	1.25 lacs	2 years	May 2011

Seminar/ Conference/ Short Term course (s) conducted by the Department :

1. AICTE sponsored Quality Improvement Programme on Bioequivalence & Clinical Research; Chief Coordinator : Dr. G. M. Panpalia; Programme Coordinators : Mrs. S. G. Panpalia and Dr. Papiya MitraMazumder (May 9 – 22, 2008).
2. AICTE sponsored Quality Improvement Programme on Recent Trends In Drug Discovery & Development, Chief Coordinator : Dr. G. M. Panpalia, Programme Coordinators : Dr. B. N. Sinha and Mr. Manik((May 23 - June 5, 2008).
3. AICTE sponsored Quality Improvement Programme on Herbal Drug Development -Trends & Future Prospects, Chief Coordinator : Dr. G. M. Panpalia, Programme Coordinators : Dr. K. Jayaram and Mr. Awadhesh Oraon (June 6 – 19, 2008).
4. Seminar on "Role of Pharmacist in Inventory Control and Management", Lalpur Extension Center, BIT, Mesra, Ranchi: August 11, 2008.
5. AICTE sponsored Quality Improvement Programme on Drug Discovery Approaches; Chief Coordinator: Dr. B .N. Sinha; Programme Coordinators: Dr. Swastika Ganguly and Dr. Papiya MitraMazumder (May 4 – 16, 2009).

6. AICTE sponsored Quality Improvement Programme on Emerging Trends In Herbal Drug Technology, Chief Coordinator : Dr. B .N. Sinha, Programme Coordinators : Dr. K. Jayaram and Mrs. Anima Pandey (May 18 - 30, 2009).
7. AICTE sponsored Quality Improvement Programme on Advances in Targetted Drug Delivery Systems, Chief Coordinator : Dr. B .N. Sinha, Programme Coordinators : Dr. R. N. Gupta and Ms. T. Bal (June 1 – 13, 2009).

Seminars/ Conference/ Symposiums/ Short term courses attended by faculty members:

1. Dr (Mrs.) Papiya Mitra Mazumder attended the Eastern Regional Conference of Indian Pharmacology Society Pharmacon 2008, April 19-20, 2008 at Rajendra Institute of Medical Sciences, Ranchi, Jharkhand.
2. Mrs. S. M. Verma attended the National Conference of Indian Pharmacological Society held at RIMS, Ranchi in April 2008.
3. Mr. Manik attended the National Workshop on "Structural Bioinformatics" organized by BTISnet SubDIC, Department of Biotechnology, BIT, Mesra under the aegis of Department of Biotechnology, Govt. of India, New Delhi: September 08-13, 2008
4. Mr. Manik attended the Workshop on "Effective Teaching", Technical Education Quality Improvement Program, BIT Mesra, Ranchi: August 05-09, 2008
5. Mr. Manik attended the International Conference on Herbal Medicine – "Evaluation of Quality, Efficacy and Safety", Bangalore, Feb. 26 – 28, 2009
6. Mr. Manik attended the 60th Indian Pharmaceutical Congress, Delhi: Dec 12-14, 2008
7. Mr. Manik attended the "Role of Pharmacist in Inventory Control and Management", Lalpur Extension Center, BIT, Mesra, Ranchi: August 11, 2008
8. Mr. Manik attended the "Eastern Regional Conference of Indian Pharmacological Society, Rajendra Institute of Medical Sciences, Ranchi: April 19 – 20, 2008
9. Mr. A. Dev attended "National Workshop on Structural Bioinformatics", Sept. 8-13, 2008. Organized by BTISnet, subDIC, Dept. of Biotechnology, B.I.T, Mesra.
10. Mr. A. Dev attended hands on session on functional genomics such as Biological Sequence Analysis, Micro-Array Data Analysis and Biological Databases in "National workshop on Functional Genomics of Prokaryotes". Sept 10-15, 2007, organized by BTISnet, subDIC, Dept. of Biotechnology, B.I.T, Mesra.
11. Mr. B. Sarkar attended a "National Workshop on Structural Bioinformatics" organized by BTISnet SubDIC, Department of Biotechnology, BIT, Mesra under the aegis of Department of Biotechnology, Govt. of India, New Delhi: September 08-13, 2008
12. Mr. B. Sarkar attended a "National Workshop on Clinical Research & Clinical Database Management" Jan. 31- Feb. 2, 2008, Organized by Bioinformatics Infrastructure Facility, Presidency College, Kolkata in collaboration with Institute of Computational Biology, Bangalore.
13. Mrs. Anima Pandey attended the conference attended in Eastern Regional Conference (Indian Pharmacology Society) Pharmacon 2008, April 19-20, 2008 at Rajendra Institute of Medical Sciences, Ranchi, Jharkhand.
14. Ms.T.Bal attended the 96th Indian Science Congress at Shillong in January 2009.

Publications:

Journals:

1. R.K.Gothwal, V.K.Nigam, M.K.Mohan, D.Sasmal, P.Ghosh, "Evaluation of plant growth promontory activities of Rhizobacterial isolates from two plants of Thar arid regions", Asian Journal of Experimental Sciences, 22(3), 2008, 205-212.
2. D. Sasmal, Sanjita Das, S.P.Basu, "Antianemic activity of Nyctanthes arbortristis Linn", Pharmacognosy Magazine, 4(15),(Suppl), 2008, S56-S58.
3. R.K.Gothwal, V.K.Nigam, M.K.Mohan, D.Sasmal, P.Ghosh, "Screening of nitrogen fixers from Rhizospheric bacterial isolates associated with important desert plants", 2008, 6(2), 101 – 109.
4. Sadhis V. Kumar, Dinakar Sasmal, Subodh C. Pal, "Rheological characterization and drug release studies of gum exudates of Terminalia catappa Linn", AAPS PharmSciTech, 9(3), 2008, 428 – 439.
5. Sanjita Das, Dinakar Sasmal, Saumya Priya Basu, "Antiinflammatory and antinociceptive activity of arbortristoside A", Journal of Ethnopharmacology, 116, 2008, 198 – 203.
6. N. V. Ravindra, G. M. Panpalia and J.A.R.P. Sharma, "Bis[5-oxo-4,5-dihydro-8H-2-azonia-4,8,9-triazabicyclo[4.3.0]nona-2,6,9(1)-triene]sulfate", Acta Crystallographica, 2008, E64, o2411 [doi:10, 1107/S1600536808038026].
7. N. V. Ravindra, G. M. Panpalia and J.A.R.P. Sharma, "Norfloxacin sesquihydrate", Acta Crystallographica, 2008, E64, o2411[doi:10,1107/S160053680900066X].
8. Misra AK, Misra M, Panpalia GM and Dorle AK, "Investigation of mechanism of release of Acetaminophan from cow's ghee and its saturated fatty acids", Journal of Pharmaceutical Research, 7(4), 2008, 220-225.
9. P.R.P. Verma, B. Razdan and G. M. Panpalia, "Studies son Interaction of Leucaena leucocephala Seed Gum with tablet diluent and drugs using Differential scanning Calorimetry", Pharmbit, Vol XVII(1), Jan-Jun 2008, 46-51.
10. P.R.P. Verma and Ashok R. Chandak, "Development and Evaluation of HPMC Based Matrices for Transdermal Patches of Tramadol", Clin. Res. Regulatory Affairs, 25(1), 2008,1-18.
11. P.R.P. Verma and Ashok R. Chandak, "Transdermal Delivery of Methotrexate Using Mixed Grades of Eudragit: Physico-chemical, In-vitro, and In-vivo Evaluations", Clin. Res. Regulatory Affairs, 25(2), 2008,.53-72
12. P.R.P. Verma, Arshad Khuroo, Tausif Monif and S. Gurule, "Comparison of Effect of Fasting and of Five Different Diets on the Bioavailability of Single Oral Dose of Amoxicillin 500 mg Capsule", Clin. Res. Regulatory Affairs, 25(2), 2008,73-86.
13. P.R.P. Verma and Ashok R. Chandak, "Design and Development of HPMC Based Polymeric Films of Methotrexate: Physicochemical and Pharmacokinetic Evaluations", YAKUGAKU ZASSHI, 128(7), 2008, 1057-1066
14. P.R.P. Verma, Arshad Khuroo, Tausif Monif and S.Gurule, "Simple Economic and Reproducible Liquid Chromatographic Mass Spectrometric Method for Determination of Amoxicillin in Human Plasma Using Ampicillin as Internal Standard", J. Chromatographic Sci. – In Press.
15. P.R.P. Verma and Ashok R. Chandak, "Development of Matrix Controlled Transdermal Delivery Systems of Pentazocine: In Vitro/In Vivo Performance", Acta Pharmaceutica, 59(2) 2009,171-186.

16. P.R.P.Verma, Arshad Khuroo, Tausif Monif and S. Gurule, "Sensitive Liquid Chromatographic Determination of Clarithromycin and 14-Hydroxy Clarithromycin in Human Plasma with tandem Mass Spectrometry" *Journal of Chromatography and Related Technology*- 31 (2008) p. 2955-2973.
17. P.R.P. Verma and B.K. Razdan, "Studies of Interaction of *Leucaena leucocephala* Seed Gum with Tablet Diluent and Drugs Using Differential Scanning Calorimetry", *Pharmbit*, XVII (I), 2008, 46-51.
18. P.R.P.Verma, Arshad Khuroo, Tausif Monif and S. Gurule, "Comparison of effect of fasting and of five different diets on the bioavailability single oral dose of clathiromycin 500 mg extended release tablet" *Clinical Research and Regulatory Affairs*- In Press.
19. P.R.P. Verma and Ashok R. Chandak, "Physicochemical and Pharmacokinetic Evaluation of Matrix-Type Transdermal Delivery System of Tramadol" – *Drug Delivery*. In Press.
20. P.R.P. Verma and Ashok R. Chandak, "Eudragit Based Transdermal Formulation of Pentazocine: Physicochemical, In-vitro, and In-vivo Evaluations" *Pharmaceutical Development and Technology*. In Press.
21. P.R.P.Verma, B.K.Razdan, and Sandeep K.Singh, "Development and characterization of selfmicroemulsifying drug delivery systems of Carvedilol". *Clinical Research and Regulatory Affairs*- In Press.
22. Sinha, B.N., Swain, S.R. and Murthy,P.N., "Toxicological Studies of the Hydroalcoholic extract of *Rungia repens* leaves", *Pharmacologyonline*, 3, 2008,58-64.
23. Sinha, B.N., Swain, S.R. and Murthy, P.N., "Subchronic Toxicity Studies of the Hydroalcoholic extract of *Rungia pectinata* leaves", *Pharmacologyonline*, 2, 2008,461-466.
24. S.Vadivelan, B.N.Sinha, G.Rambabu, K.Boppana and J.A.R.P.Sarma, "Pharmacophore modeling and virtual screening studies to design some potential Histone deacetylase inhibitors as new leads", *J. of Molecular Graphics and Modelling*, 26, 2008, 935-946 .
25. Sinha, B.N. and Bansal. S.K., "A Review of Phytochemical and Biological Studies of *Diospyros* species used in folklore medicine of Jharkhand", *Journal of Natural Remedies*, 8/1, 2008, 11-17.
26. Sinha, B.N. and Bansal. S.K., "Phytochemical and Antimicrobial activity of Extracts, Fractions and Betulin, 7-methyl Juglone obtained from *Diospyros paniculata*", *Journal of Natural Remedies*, 2008,9/1.
27. Sinha, B.N.,Bansal. S.K. and Patnaik A.K., "Studies on antinociceptive and anti inflammatory activity of *Diospyros paniculata* dalz (ebanaceae) stem bark extracts", *Indian J. Experimental Biology-NISCAIR*(EB-2798)/2008.
28. Sheela Chandra, H.P. Sharma, R. Chandra and S. Jha, "Agrobacterium rhizogenous mediated genetic transformation of *Spilanthes paniculata* (DC.)" *Jansen International Journal of Plant Sciences*,3(2), 2008, 471-476.
29. Sheela Chandra, H.P. Sharma, R. Chandra and S. Jha, "In vitro propagation of various explants of *Spilanthes paniculata* (DC.)" *Jansen International Journal of Plant Sciences*, 3(2), 2008, 558-566.
30. A.Mazumder and S. Jha, "Antimicrobial activity of Extracts and Isolates of the leaves of *Plumeria alba* Linn", *Hamdard Medicines*, 51(1),2008.
31. Mishra and S. Jha, "In vitro mineral binding activity of Dietary fibers from *Cassia Fistula* and *Tamarindus Indica* L. seeds", *Pharmbit*, Vol XVIII(1), Jan-June 2008.
32. Gurvinder Singh and S. Jha, "Protective effects of *Terminalia arjuna* bark against Doxorubicin induced cardiotoxicity", *Journal of Ethnopharmacology*, 10(106), 2008, 235-243.

33. M. Jha, S. Jha, L. Dwivedi, "Process Standardization and Development of Standard Operating Procedures for Arjunarishta", *Planta Indica*, 4(2), 2008..
34. S. Jha and P.P. Singh, "In vitro antilithiatic studies on *Dolichos biflorus* Linn.(seeds) and *Paruelia perlata* ACH(Thallus)", *Journal of Chemical Sciences*, 6(3), 2008, 1324-1332.
35. R. N. Gupta, Anima Pandey, Subrata Ghosh "Diabetic Foot : Pathogenesis Management and Recent advances", *Pharmatimes*, Vol 40, 2008, 13.
36. Chirag Desai, Hetal Patel, R. Mazumder,, A. Mazumder, & R. N. Gupta, "Stimuli Responsive Hydrogel as Floating Drug Delivery System", *Pharmatimes*, 40, 2008, 1.
37. Dalal S, Sahoo SK, Dhal S, Behara BC, Barik BB, Gupta RN. "Effect of nature and radius of crosslinker on alginate microbeads formulated by external ionic gelation technique" *Asian Journal of Pharmaceutical and Clinical Research*, 1,2, 2008, 21.
38. Panda DS, Chowdhury NSK, Yedukodalu M, Gupta RN. "Evaluation of film forming potential of a natural gum" *Asian Journal of Pharmaceutics*. Jan 2008., 46.
39. Panda D.S., Chodhuary N.S.K, YeduM, Si S, Gupta R.N., "Evaluation of Gum of *Moringa oleifera* as a Binder and Release Retardant in Tablet Formulation", *Indian Journal of Pharmaceutical Sciences*, Sept-Oct'08, 504 .
40. Garvendra Singh Rathore, R. N. Gupta, Rakesh Gupta, "Spectrophotometric methods for estimation of tramadol hydrochloride in pharmaceutical dosage forms" *ASIAN JOURNAL OF CHEMISTRY*, Volume: 21 Issue: 8 Article No: 46 PP: 6111 - 6115) .
41. Garvendra Singh Rathore, Pawan K Basniwal, Manish Suthar and R.N.Gupta, "Spectrophotometric methods for the estimation of venlafaxine hydrochloride", *Asian Journal of Chemistry*. Volume: 21 Issue: 8 Article No: 17 PP: 5908 - 5912
42. R.N. Gupta, "Controlled Oral Drug Delivery Systems: a review" *Indian Drugs*. (accepted) .
43. M. Ganesh, B. Thangabalan, Swastika Ganguly, T. Sivakumar, "Simple extractive colorimetric determination of oxaprozin by acid-dye complexation methods in solid dosage form", *E journal of chemistry*, 5(3), July 2008, p. 593-597.
44. Mani Ganesh, Mani Vasudevan, Kaliappan Kamalakannan, Arthanari Saravana Kumar, Mari Vinoba, Swastika Ganguly, Thangavelu Sivakumar, "Anti-inflammatory and Analgesic Effects of *Pongamia glabra* Leaf Gall Extract", *Pharmacologyonline*, 1, 2008, 497-512.
45. M. Ganesh, B. Thangabalan, Rahul Patil, Dinesh Thakur, A. Saravana Kumar, M. Vinoba, Swastika Ganguly, T. Sivakumar, "Validated HPLC Method for Analysis of Oxaprozin in a Formulation", *Acta Chromatographica*, 20 (2), 2008, 165-173.
46. S. Ganguly and Gopalakrishnan V, "3D QSAR Studies Of DAMNI Analogs as Possible Non Nucleoside Reverse Transcriptase Inhibitors", *E-journal of chemistry*, 5(S2), 2008, 1103-1113.
47. Papiya Mitra Mazumder, Rana Dutta, R. N. Manjee and S. Ganguly, "Synthesis and Antimicrobial activity of some derivatives of aleuritic acid", *Indian Journal of Heterocyclic Chemistry*, 18, 2008, 73-76.
48. Sumit Mishra, Gurdeep Singh, Usha Jha and Swastika Ganguly, "Long term leaching studies on Coal combustion residues from Balco Captive Power Plant, Korba", *Journal of Indian Chemical Society*, 85, April 2008, pp. 429-433.

49. Swastika Ganguly and S.P. Bhatnagar, "Development of a Computerized Database for Identification of Indigenous Drugs", *Pharmacognosy Magazine*, 4(14), 2008, 65-71.
50. S. Ganguly and S. Banerjee, "3D-QSAR Studies of Imidazole Derivatives As Candida Albicans P450 – Demethylase Inhibitors", *Asian Journal of Chemistry*, 20(6), 2008, 4595-4608.
51. M.Ganesh, K. Kamalakrishnan, Rahul Patil, Satish Upadhyay, Anand Srivastava, T. Sivakumar and Swastika Ganguly, "A validated UV Spectrophotometric method for the determination of Ietrozole in bulk and solid dosage form", *Rasayan Journal of Chemistry*, 1(1), 2008, 55-58.
52. M. Ganesh, B. Thangabalan, Dinesh Thakur, K. Srinivasan, Swastika Ganguly and T. Sivakumar, "UV Spectrophotometric Determination of Oxaprozin in Pure and Pharmaceutical Formulation", *Asian Journal of Chemistry*, 20(7), 2008, 5451-54.
53. S. Ganguly and S. Murugesan, "Docking studies of novel tetrahydroquinoline and tetrahydroisoquinoline analogues into the non-nucleoside inhibitor binding site of HIV-1 RT", *Rasayan Journal of Chemistry*, Vol.1(2), 2008, 251-257.
54. Avinash Patil, Swastika Ganguly and Sanjay Surana, "A Systematic Review of Benzimidazole Derivatives as an antiulcer agent", *Rasayan Journal of Chemistry*, 1(3), (2008), 447-460.
55. Avinash Patil, Swastika Ganguly and Sanjay Surana, "Synthesis and Antiulcer Activity of 2-[3-para substituted phenyl[4(3H)-oxo1, 3 quinazolines]-2-yl] methyl sulfinyl 5 substituted benzimidazoles", *Asian Journal of Chemistry*, 1(3), (2008), 447-460.
56. S. Ganguly, S. P. Bhatnagar and V. Kaushik, "Development of software for identification of indigenous drugs", *Pharmacognosy Research*, 1(1), (2009), 35-37.
57. S. Ganguly, Vishwanathan K and R. Chandra, "Synthesis and Antibacterial activity of some N-substituted -3-(2-methyl-5-nitro-imidazol-1-yl)-propionamides", *Journal of Institution of Chemists* 81(2), (2009), 57-62.
58. S. Ganguly, Gopalakrishnan V. and R. Chandra, "Synthesis and antibacterial activity of some new 1-substituted 2- methyl-4- nitroimidazoles", *International Journal of Chemical Sciences* 7(1), 2009, 204-210.
59. M. Ganesh, S. Uppatyay, R. Tivari, K. Kamalakannan, G. Rathinavel, S. Ganguly and T. Sivakumar, "Quantitation of Alfuzosin Hydrochloride in Pharmaceutical Formulations by RP-HPLC", *Pakistan Journal of Pharmaceutical Sciences.*, Vol. 22, July 2009, 263-266.
60. M. Veerapandian, M. Marimuthu, P. Ilangoan, S. Ganguly, Kyu-Sik Yun, Sanghyo Kim, Jeongho "An, Analytical and biological standardization of quinazoline semicarbazones derivatives", *Med. Chem. Res.* DOI 10.1007/s00044-009-9191-y.
61. S. Ganguly, P. Mitra Mazumder, D. Sasmal, G.M. Panpalia, S. Jha, S.G. Panpalia and R. Chandra, "Spirulina as a green remedy – An Overview", *Science and Culture* 75(1-2), 2009, 12-17
62. Kumar, J. K., "A Simple and Rapid method of Estimation of an Anticancer Constituent Nimbolide in Neem Leaves", *Journal of Planar chromatography*. Volume 21, Number 4/August 2008, 263-265.
63. Kumar, J.K, Singh, A, S. Jayaraman, Asha Rani and R.K. Nema "Stability-Indicating HPTLC Determination of Piperine in Bulk Drug and Pharmaceutical Formulations" *Asian J. Chem.*, Vol. 20, 2008, pp. 6007-6010.
64. Papiya Mitra Mazumder, D. Sasmal & R. Arivudai Nambi, "Antiulcerogenic and antioxidant effects of Coccinia grandis (Linn.) Voigt in aspirin induced gastric ulcer in rats", *Natural Product Radiance*, 7(1), 2008, 15 - 18.

65. Papiya Mitra Mazumder, D. Sasmal & S. Narayan, "Wound healing activity of the methanolic extracts of the leaves of *Salvia splendens* Ex Roem and Schultz", *Journal of Pharmaceutical Research*, 7 (1), 2008, 39 - 43.
66. S.P. Pattanayak, P. Mitra Mazumder, P. Sunita, "Impact of hormone therapy on breast cancer risk: A theoretical understanding", *IAPST Bulletin*, 14(1), 2008, 2-3.
67. Papiya Mitra Mazumder, & D. Sasmal, "Hepatotoxicity studies of some mycotoxins with special reference to hepatoprotection against mycotoxin induced liver damage", *Indian Journal of Pharmaceutical Education and Research*, 42(2), 2008, 141 - 146.
68. S. P. Pattanayak, P. Sunita, P. Mitra Mazumder, P. K. Panda, "Evaluation of the antitumor activity the aqueous extract of *Dendrophthoe falcata* on 7,12, Dimethylbenz[a] anthracene – induced rat mammary tumor model", *International Journal of Pharmacology and Biological Sciences*, 2(2), 2008, 75 – 80.
69. Papiya Mitra Mazumder, S. P. Pattanayak, Bhawna Priyadarshini, D. Sasmal, "Antiinflammatory and Antinociceptive activity of the flowers of *Pterospermum acerifolium*", *Pharmacologyonline*, 2, 2008, 428 – 439.
70. Papiya Mitra Mazumder, V. Percha, Mamta Farswan, Aman Upaganlawar, "Cassia : A Wonder Gift to Medical Sciences", *International Journal of Community Pharmacy*, 1 (2), 2008, 16 – 38.
71. S. P. Pattanayak, P. Mitra Mazumder, P. Sunita, P. K. Panda, "Histopathological approach to chemical induced targeted organ toxicity in rodent: with a key focus to mammary and liver tissue", *Pharmbit* 17(1), 2008, 76 – 82.
72. Shakti Pattanayak, and Papiya Mitra Mazumder, "Histopathological approach to rat liver tissue", *Protocol Online* (<http://www.protocol-online.org>), 2008.
73. Papiya Mitra Mazumder, Mamta Farswan, V. Parcha, Vinod Singh, "Hypoglycemic and Antioxidant Activity of an isolated compound from *Ficus arnottiana* bark", *Pharmacologyonline* 3, 2008, 509-519.
74. Arulmozhi.S, Papiya Mitra Mazumder, Vishnu A. Kangralkar, L. Sathiya Narayanan, Prasad Thakurdesai, "Anti-anxiety activity of *Alstonia scholaris* linn. R.Br.", *Pharmacologyonline* 3, 2008, 761 – 775.
75. S.P. Pattanayak, P. Mitra Mazumder, P. Sunita, "Dendrophthoe falcata (L.f) Ettingsh: A Consensus Review", *Pharmacognosy Reviews*, 2(4), 2008, 359 – 368.
76. S.P. Pattanayak, P. Mitra Mazumder, P. Sunita, "Preliminary studies on Antinociceptive activity of *Dendrophthoe falcata* (L.f.) Ettingsh (Loranthaceae)", *Pharmacologyonline* 3, 2008, 370 – 378.
77. P. Dewangan, S. M. Verma, A. Basu and Venkatesan J., "Multidimensional Consensus QSAR: A Step Towards Integrating CoMFA, CoMSIA with Traditional QSAR Methodologies". *Letters in Drug Design & Discovery*, 5 (8), 2008, 494-502.
78. K.Jasu,A.Basu,S.Bhattacharya,P.Ojha,Venkatesan.J., N.Mishra, "Development of a COMFA and COMSIA model for cytotoxicity activity of Anti-HIV 1-Phenylamino-1H-imidazole Derivatives". *European Journal Medicinal Chemistry*, doi: 10.1016/j.ejmech.2008.09.043
79. Kesavan Krishnan, Kumari Prathiba, Venkatesan Jayaprakash, Arijit Basu, Nibha Mishra, Bingsen Zhou, Shuya Hu, Yun Yen, "Synthesis and Ribonucleotide Reductase Inhibitory Activity of Thiosemicarbazones". *Bio-organic and Medicinal Chemistry Letters*. 18, 2008, 6248-6250.
80. Venkatesan Jayaprakash., Barij N. Sinha., Gulberk Ucar., Ayse Ercan, "Pyrazoline-based mycobactin analogues as MAO-inhibitors", *Bioorganic Medicinal Chemistry Letters*, 18, 2008, 6362-6368.

81. Karen L. Stirrett, A., Julian A. Ferreras., Venkatesan Jayaprakash., Barij N. Sinha., Tao Ren and Luis E. N. Quadri, "Small molecules with structural similarities to siderophores as novel antimicrobials against Mycobacterium tuberculosis and Yersinia pestis", *Bioorganic Medicinal Chemistry Letters*, 18, 2008, 2662-2668.
82. J. Sahoo, P.N. Murthy, S. Biswal and Manik, "Formulation of Sustained-Release Dosage Form of Verapamil Hydrochloride by Solid Dispersion Technique Using Eudragit RLPO or Kollidon®SR", *AAPS PharmSciTech* (©2008) (<http://dx.doi.org/10.1208/s12249-008-9175-0>) Published online: 15 January 2009
83. Ratna Gope and Manik "Assessment of Dietary Micronutrients in Institutionalized Geriatric" *PHARMBIT*, XVII (1), 2008, Jan-Jun; 69-73.
84. Abhimanyu Dev & Manik. "Gene Knockout" *PHARMBIT* (International Journal, ISSN: 0973-6204), XVI (2) Jul – Dec; 105-109: 2007
85. Munesh Mani, Aher Vaibav D, B. Sarkar, Abhimanyu Dev, Arjun Patra, "Antibacterial Activity of the Leaves of *Abutilon Indicum* Linn.", *PHARMBIT* (International Journal, ISSN: 0973-6204), XVII (1) Jan – Jul, 2008, 74-75.
86. Anima Pandey and S.P. Bhatnagar, "Wound healing activity of *Artocarpus lakoocha* roxb. (Moraceae)", *International Journal of Pharmacology and Biological Sciences*(accepted).
87. Anima Pandey and S.P. Bhatnagar, "Investigation on Antioxidant, Phenolic and Flavonoid content of the bark of *Artocarpus lakoocha*", *Research Journal in Agricultural and Biological Sciences*(accepted).
88. Anima Pandey and S.P. Bhatnagar, "Antioxidant and Phenolic content of the bark of *Artocarpus lakoocha*", *Pharma Review*(accepted).
89. Anima Pandey and S.P. Bhatnagar, "Preliminary Phytochemical screening and antimicrobial studies on *Artocarpus lakoocha* Roxb" *Ancient Science of Life* (accepted).
90. Anima Pandey and S.P. Bhatnagar, "Physicochemical evaluation of a traditional Plant in Jharkhand", *Applied science periodical* (accepted).
91. S.P. Pattanayak and P. Sunita, "Wound healing, antimicrobial and in-vivo antioxidant activity of *Dendrophthoe falcata* (L.f.) Ettingsh". *Journal of Ethnopharmacology*, Volume 120, Issue 2, 2008, 241 – 247.
92. S.P. Pattanayak, "Hepatoprotective activity of the leaf extracts from *Dendrophthoe falcata* (L.f) Ettingsh against carbon tetrachloride –induced toxicity in wistar albino rats" (*Pharmacog Mag*) issue 16, 2008, *Pharmacognosy Magazine* 4, 2008, 218 – 222,.
93. S.P. Pattanayak, P. Sunita, Health Benefits of Phytoestrogens – A Consensus Review, *Pharmacognosy Reviews*, Vol 2, Issue 3, 2008, 35 – 42.
94. Neelima Pathak (Sharma), Shashi Khandelwal (2008). "Impact of cadmium in T lymphocyte subsets and cytokine expression: Differential regulation by oxidative stress and apoptosis" *Biometals* 21, 179-187.
95. Neelima Pathak(Sharma), Shashi Khandelwal (2008). "Immunomodulation by piperine, curcumin and picroliv in Cd induced murine lymphocytes" *Biometals* 21, 649-661.
96. Shashi Khandelwal, Neelima Pathak(Sharma), Manish Kumar Singh (2008). "Protective role of piperine against Cadmium induced hepatic and renal toxicity in mice" *Toxicol. Int.* 15, 85-89.
97. Neelima Pathak(Sharma), Shashi Khandelwal (2009). "Immunomodulatory role of Piperine in Cadmium induced thymic atrophy and splenomegaly in mice. *Environ Toxicol. Appl. Pharmacol.* (in press).
98. Neelima Pathak(Sharma), Shashi Khandelwal (2009). "Phenotypic alterations and cytokine ex-pression by cadmium in murine lymphocytes: an in vitro and in vivo study" *Toxicol. Int.* (in press)

Proceedings:

1. Sanjita Das, Dinakar Sasmal, Saumya Priya Basu, "Diuretic activity of arbortristoside A", Proceedings of 60th Indian Pharmaceutical Congress, New Delhi, 12th – 14th Dec, 2008, pg 248.
2. Chanchal Kr. Mishra, A.K.Pattanaik, D. Sasmal, "Wound healing activity of aqueous root of Carissa Carandas Linn", Proceedings of 60th Indian Pharmaceutical Congress, New Delhi, 12th – 14th Dec, 2008, pg 375.
3. D. Sasmal, Papiya Mitra Mazumder, L. Baskar, V. Sadhish Kumar, "Neuropsychopharmacological profile of the ethanolic extract of Nyctanthes arbortristis (Linn)". Proceedings of Eastern Regional conference of Indian Pharmacological Society, RIMS, Ranchi, 19th – 20th April, 2008, pg 42.
4. P.R.P.Verma and Ashok R. Chandak, "Comparative Pharmacokinetic Characterization of Matrix Dispersion Type Transdermal Films of Tramadol", 1st International Pharm. Tech IAPST Conference on Drug Delivery and Drug Targeting Research, Jadavpur University, Kolkata, Jan 2008.
5. P. R. P. Verma and Ashok R. Chandak, "Development and Comparative Pharmacokinetic Evaluations of Pentazocine Transdermal Patches", 1st International Pharm. Tech IAPST Conference on Drug Delivery and Drug Targeting Research, Jadavpur University, Kolkata, Jan 2008.
6. P. R. P. Verma and Ashok R. Chandak, "HPMC and Eudragit Based Matrix Films of Methotrexate: Comparative Pharmacokinetic Evaluations", 1st International Pharm. Tech IAPST Conference on Drug Delivery and Drug Targeting Research, Jadavpur University, Kolkata, Jan 2008.
7. P.R.P.Verma, B.K. Razdan, Nidhi Sinha and S.K. Singh, "Development of Self Microemulsifying Drug Delivery System of Glibenclamide I: Formulation and Optimization", 1st International Pharm. Tech IAPST Conference on Drug Delivery and Drug Targeting Research, Jadavpur University, Kolkata, Jan 2008.
8. P.R.P.Verma, B.K. Razdan, and S. K. Singh, "Development of SMEDDS of Glibenclamide II: Evaluation and Characterization", 1st International Pharm. Tech IAPST Conference, Jadavpur University, Kolkata, Jan 2008.
9. P.R.P. Verma, Sandeep.K. Singh and A. Sarkar, "Influence of various thermodynamic parameters on solubility improvement of Carvediol", Indian Pharmacological Society, RIMS, Ranchi- presented on 19th-20th April 2008.
10. P.R.P. Verma, B.K. Razdan and S.K. Singh, "Development of SNEDDS of Carvedilol: Formulation, Optimization and Characterization", Indian Pharmacol. Society, RIMS, Ranchi-19th-20 th April 2008.
11. P.R.P. Verma, B.K. Razdan and Sandeep.K. Singh, "Self Nano Emulsifying Drug Delivery Systems of Glibenclamide: Combined Effect of Oil, Surfactant and Co-Surfactant on particle size distribution", Indian Pharmacol. Society, RIMS, Ranchi-19th-20th April 2008
12. P.R.P. Verma, N. Sinha and S.K. Singh, "Development and optimization of SNEDDS of Simvastatin", Indian Pharmacol. Society, RIMS, Ranchi-19th-20th April 2008
13. P.R.P. Verma, N. Sinha, S.K. Singh and A.R. Chandak, "Combined Effect of Oil, Surfactant and Co-Surfactant on Particle Size Distribution of SNEDDS of Simvastatin", Indian Pharmacol. Society, RIMS, Ranchi-19th-20th April 2008
14. P.R.P. Verma, S.K. Singh and B.K. Razdan, "Development of SMEDDS Delivery System of Carvedilol: Formulation Development and Optimization", Indian Pharm Congress, Delhi 12-14, Dec, 2008.

15. P.R.P. Verma, S.K. Singh and B.K. Razdan, "Development of SMEDDS System of Carvedilol: Evaluation and Characterization", Indian Pharm Congress, Delhi 12-14, December, 2008.
16. Gupta M.K, Saroj Kumar, Mandal TK and Panpalia S.G., "Influence of Processing Parameters on the release of Atenolol from poly (D,L-Lactide –co-glycolide)(PLGA) microspheres", Indian Pharm Congress, Delhi 12-14, December, 2008.
17. Madan Jesvin Singh, Chhabra Richa and Gupta R.N. "Patient counseling in reengineering of Indian professional pharmacy", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
18. Gupta R. N., Yadav Chandraprakash. "Formulation and In-vitro evaluation of orodispersible dosage form of stavudine", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
19. Biswas M., Gupta R. N., Saha Ananya, Shanthi Nithya and Kumar Ashok. "Formulation and In-vitro evaluation of film coated tablets of antiviral drug", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
20. Gupta R. N., Priyadarshini Surabhi, Biswas M., Meena G., and Kumar Ashok. "Formulation and In-vitro evaluation of verapamil hydrochloride loaded microspheres using different polymers", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
21. Priyadarshini Surabhi, Gupta R. N., Majumdar S. and Saha Ananya. "In-vitro dissolution behaviour of alendronate ©-cyclodextrin inclusion compounds", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
22. Devi R., Renganathan A., Mohd Shameer, and Gupta R. N. "Formulation and evaluation of diclofenac sodium transdermal patches", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
23. Renganathan A., Devi R., Mohd Shameer and Gupta R. N. "Formulation and evaluation of famotidine microspheres", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
24. Sharma Vibha, Madan Jesvin Singh, Chhabra Richa and Gupta R. N. "Upgradation of Pharmacy education to Re-engineer professional pharmacy", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
25. Yadav Chandraprakash, Gupta R. N., Yadav Rekha. "Pharmacist as a dispensable and indispensable part of health care system: a survey", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
26. Mishra Chanchal Kumar, Gupta R. N., and Sasmal D. P "soriasis is an immune system disorder identified as a skin disease", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
27. Garg Rahul, Agrawal Mahveer, Mishra Chanchal Kumar and Gupta R. N. "Adverse drug reaction of lomefloxacin with the marketed products", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
28. Madan Jesvin Singh, Hura Neha, Sharma Vibha and Gupta R. N. "Urooting self medication : magic spell for Reengineering professional pharmacy in India", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
29. Chhabra Richa, Gupta R. N., Sharma Vibha and Hura Neha. "Community pharmacy: A boon for Reengineering professional pharmacy in India", presented in IPA convention at DIPSAR from 14th to 15th March 2009.
30. Vatsal Vithlani, Bunha Mahesh, Gupta R.N., "Type I Diabetes : The Patient's Perspective" presented at APTI CONVENTION held at Bilaspur, Oct 2008.

31. R. Kuhu, S. Ganguly and S. Murugesan, "Pharmacophoric Distance Mapping Study of Some Non Nucleosidal Reverse Transcriptase Inhibitors", Proceedings of 60th Indian Pharmaceutical Congress, 12th – 14th Dec 2008, 195.
32. Murugesan S. and Swastika Ganguly, "Docking Studies of Some Novel 1, 2, 3, 4- Tetrahydroisoquinoline analogs as HIV -1- non nucleosidal Reverse Transcriptase Inhibitors", Proceedings of 60th Indian Pharmaceutical Congress, 12th – 14th Dec 2008, 197.
33. A.V. Patil, S. Ganguly and S.J. Surana, Synthesis, "Docking and in vivo antiulcer activity of novel 2-(1H-Benzo(D)imidazol-2-yl-sulfinyl)methyl 3-substituted quinazoline-4- (3H)-one derivatives", Proceedings of 60th Indian Pharmaceutical Congress, 12th – 14th Dec 2008, 208.
34. Amresh Kumar and Swastika Ganguly, "Synthesis and evaluation of some azole analogs as potential antifungal agents", Proceedings of 60th Indian Pharmaceutical Congress, 12th – 14th Dec 2008, 245.
35. L. Baskar, Papiya Mitra Mazumder, D. Sasmal and Swastika Ganguly, "Behavioral studies of certain novel 1-substituted 2-methylimidazole derivatives: A blind screening, held in the APTI" 13th Annual National Convention at SLT Institute of Pharmaceutical Sciences, Guru Ghasidas University, Bilaspur, 3rd-4th October 2008.
36. Papiya Mitra Mazumder, Swastika Ganguly, D. Sasmal and L. Baskar "LD 50 Determination and Behavioral Studies of certain novel 1-substituted-2- methylimidazole derivatives: A blind screening", Proceedings of 60th Indian Pharmaceutical Congress, 12th – 14th Dec 2008, 372.
37. Mitra Mazumder P., Agarwal V., Mondal A., Sasmal D., "Evaluation of Diuretic activity of the leaves of Barleria lupulina Lindl(family – Acanthaceae)", Proceedings of International Herbal Conference 2009 – Evaluation of Quality, Efficacy and Safety, Bangalore Feb. 26 – 28, 2009, 83.
38. S.P.Pattanayak, P.M. Mazumder, P. Sunita, "Immunomodulatory potency of the Hemiparasite Dendrophthoe falcata in Immune Inflammation model", Proceedings of International Herbal Conference 2009 – Evaluation of Quality, Efficacy and Safety, Bangalore Feb. 26 – 28, 2009, 116.
39. M.P., Pattanayak S.P., Mitra Mazumder P., Gupta S., Kunar R. "Antipsychotic rehabilitation survey in patients with schizophrenia in a psychiatric hospital in Ranchi", Proceedings of Indian Congress of Pharmacy and Pharmaceutical Sciences – 2009 and IPA convention at DIPSA from 14th to 15th March 2009, 5.
40. Manik Ghosh & B. N. Sinha. "Identification of Phytoconstituents of Litsea polyantha Juss Bark using GC-MS. International Conference on Herbal Medicine – Evaluation of Quality, Efficacy and Safety", Bangalore Feb. 26 – 28, 2009.
41. Ratna Ghosh, Rupali Ghosh, Manik Ghosh and Vichitra Kaushik. "Recommended Diet for Diabetics May Need Changing". National Symposium on Emerging Trends in Biomedical Sciences at SBSPGI, Dehradun Feb.27-28, 2009.
42. Manik Ghosh, Trishna Bal, Bina K Mehta, Shikha and Vichitra Kaushik. "Reliability of Docking Studies" National Symposium on Emerging Trends in Biomedical Sciences at SBSPGI, Dehradun Feb.27-28, 2009.
43. Ratna Ghosh, Manik Ghosh, Rupali Ghosh and Vichitra Kaushik. "Turmeric for Jaundice: Friend or Enemy" National Symposium on Emerging Trends in Biomedical Sciences at SBSPGI, Dehradun Feb.27-28, 2009.
44. Manik & B. N. Sinha, "Challenges for Pharmacovigilance in Indian Public Health Programs", Eastern Regional Conference of Indian Pharmacological Society, Rajendra Institute of Medical Sciences, Ranchi: April 19 – 20, 2008.

45. R.N.Gupta, A.K.Pattnaik and Anima Pandey, "Monitoring of adverse drug reactions (ADRS) of newly introduced drugs and making awareness about ADRS and banned drugs among health professionals in Jharkhand state", Presented on Eastern Regional Conference (Indian Pharmacology Society) Pharmacon 2008, April 19-20, 2008 at Rajendra Institute of Medical Sciences, Ranchi, Jharkhand.
46. Papiya Mitra Mazumder, D. Sasmal, Bhawna Priyadarshini, S.P.Pattanayak, "Analgesic and anti-inflammatory potential of the flowers of *Pterospermum acerifolium* (L) Willd in rodents". Proceedings of Eastern Regional conference of Indian Pharmacological Society, RIMS, Ranchi, 19th – 20th April, 2008, pg 37.
47. Shakti Prasad P, P. Mitra Mazumder, Priyashree Sunita, "Estimation of Minimum non lethal dose (MNLD) and approximate LD50 (ALD) of the extract of *Dendrophthoe falcata* on the host plant *Azadirachta indica*", Proceedings of APTI 13th Annual National Convention – 2008, SLT Institute of Pharmaceutical Sciences, Guru Ghasidas University, Bilaspur, 3rd – 4th October, 2008, pg 132.
48. P. Mitra Mazumder, Bhawna Priyadarshini, Ashok Kumar, D. Sasmal, "Evaluation of antiarthritic activity of the flowers of *Pterospermum acerifolium* (L) Willd" Proceedings of 60th Indian Pharmaceutical Congress, New Delhi, 12th – 14th Dec, 2008, Pg. 330.
49. Papiya Mitra Mazumder, Ankita, D. Sasmal, Reema Mitra, "Antidiabetic activity of the methanolic extract and ethyl acetate fraction of the leaves of *Pterospermum acerifolium*", Proceedings of 60th Indian Pharmaceutical Congress, New Delhi, 12th – 14th Dec, 2008, Pg. 335.
50. S. P. Pattanayak, P. M. Mazumder, "Effect of *Dendrophthoe falcata* on motor activity of Wistar female rats: an experimental evidence through open field test", Proceedings of 60th Indian Pharmaceutical Congress, New Delhi, 12th – 14th Dec, 2008, Pg. 367.
51. Venkatesan, J., Basu, A., Sinha, B.N. and Lalsarya, J., "HDAC Inhibitors as Anticancer agents: Their structure optimization through AUTODOCK", Proc. of Pharmacon-2008 at RIMS, Ranchi, April 2008.
52. S.M.Verma, A.Basu, P.Dewangan "3D QSAR study of N substituted guanidine derivatives as NMDA receptor antagonists", National seminar on Recent Trends in Drug Discovery, Bilaspur, 2008.
53. S.M.Verma and N.Singh, "Isolation, identification and optimization of some lipase producing fungi", Indian Pharmacological Society, RIMS, Ranchi, April 2008.
54. S.M.Verma, A.Basu, P.Dewangan, "QSAR study of guanidine analogs as NMDA receptor antagonists", Indian Pharmacological Society, RIMS, Ranchi April 2008.
55. S.M.Verma, B.K.Razadan and D.Sasmal, "In vivo studies on some tropane analogs", Indian Pharmacological Society, RIMS, Ranchi, April 2008.
56. S.M.Verma, B.K. Razadan and D.Sasmal, "Computer aided studies on some cholinergic receptor antagonists as potential antiparkinsonian agents", Indian Pharmacological Society, RIMS, Ranchi, April 2008.
57. S.M.Verma, P.Dewangan, K.Sethi and N.Padma, "Docking Studies on some NMDA receptor ion channel blockers" 13th APTI, Bilaspur, 2008.
58. S.M.Verma, A.Gunakunru and K.Sethi, "3D QSAR, Synthesis and Docking Studies of some hca11 inhibitors". 60th Indian Pharmaceutical Congress, Delhi, 12th-14th Dec 2008.
59. S.M Verma, A.Basu, P.Dewangan and N.Padma, "Synthesis and Docking Studies of N, N1-Bis aryl Guanidines as NMDA receptor antagonists", 60th Indian Pharmaceutical Congress, Delhi, Dec 2008.
60. Mishra N, Hemlatha S, JPN Chansauria, P.N.Singh "Wound healing activity of *Withania Coagulans*.", Recent Proc in Indian Pharmaceutical Congress, Ranchi, 2008.

61. A. Dev, "Study of Antinflammatory effect and toxicity studies of crude plant extract of *Cassia parviflora*" in 8th National conference of Chemist and Biologist at CDRI held in Lucknow from 28th to 30th September 2008.
62. T.Bal, "Development of proteins as drugs as oral colon targeted delivery" at 13th annual National convention of APTI, 2008.
63. T.Bal, "Fucoidan-A natural sea based nutrient, Exploring its therapeutic Value" at 96th Indian Science congress, Shillong in January 2009.

Books:

N.Mishra, A.Basu, A.K. Pattanaik, J.Venkatesan "Withania coaguans A review", Indian Medicinal Plants, Pointer Publisher, 2009, 171-174.

Awards/Honours Bestowed::

1. Mrs. S.M. Verma, Mr. A. Basu and P. Dewangan were awarded the Best Paper Award for the paper entitled "3D QSAR study of N substituted guanidine derivatives as NMDA receptor antagonists" at the National seminar on Recent Trends in Drug Discovery" held at Bilaspur in 2008.
2. Mrs. S.M. Verma, Mr. A. Basu and P. Dewangan were awarded the Best Paper Award for the paper entitled "2DQSAR study of guanidine analogs as NMDA receptor antagonists" at a seminar held by Indian Pharmacological Society, RIMS, Ranchi on 19th-20th April 2008.
3. Mr. Pallab Roy, B. Pharm student of the Department of Pharmaceutical Sciences, BIT, Mesra has been awarded the G.P. Nair gold medal by Indian Drug Manufacturers Association (IDMA) in January 2009.

Patents Granted:

Novel Orally administrable antidiabetic compounds, process for producing them and therapeutic compositions containing the same"- Appl. No: 90/K01/2005.

Patentee: Prof. Subir Samanta and Birla Institute of Technology, Mesra, Ranchi

Patent No.: 233040 Date of Grant: 25th March 2009

Patents Applied:

1. Formulation of orodispersible tablets of Stavudine by weight granulation method- Appl. No: 1043/K01/2009.
Date of application: 6th August 2009
Patent filed by: Dr. R.N. Gupta and Birla Institute of Technology, Mesra, Ranchi

MOUs:

1. Lotus Clinical Research Academy, Bangalore and Department of Pharmaceutical Sciences, BIT, Mesra for three PG programmes.
2. Himalayan Pharmacy Institute, Majhitar, East-Sikkim and Department of Pharmaceutical Sciences, BIT, Mesra for Collaborative Research and Doctoral programme.

Students' Activities:

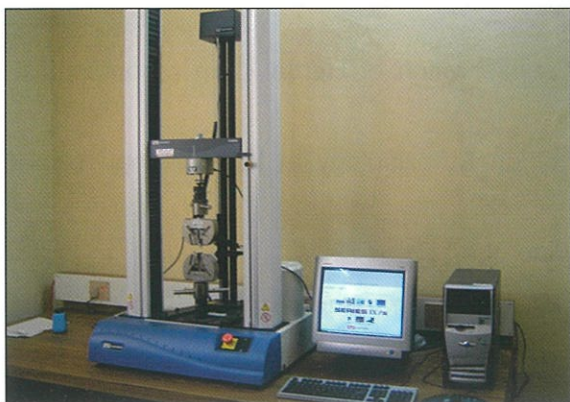
1. Various students' activities such as welcome and farewell programmes alongwith Brainstorming sessions have been conducted by the Pharmaceutical society of the Department.

Other Informations:

1. Dr. D.Sasmal was elected as President of APTI Jharkhand state branch.

2. Dr. D. Sasmal chaired the Scientific session of Pharmacology & Toxicology at 60th IPC, New Delhi (Dec.12-14,2008)
3. Dr. D. Sasmal delivered a lecture entitled "Strategies for conservation of Herbal drug resources" at Himalayan Institute of Pharmacy, Sikkim on Nov.4, 2008.
4. Dr. D. Sasmal chaired the Scientific session of Pharmacology & Toxicology at International Herbal Conference, Bangalore, (Feb.26 -28, 2008) .
5. Dr. D. Sasmal is an invited member of the nomination council for the Infosys Prize.
6. Dr. G. M. Panpalia coordinated the three AICTE sponsored QIP programmes in the Department of Pharmaceutical sciences from May to June.
7. Dr. B N Sinha chaired the Scientific session of Medicinal Chemistry & Phytochemistry at 60th IPC, New Delhi (Dec.12-14,2008)
8. Dr. B N Sinha chaired the Technical session of Association of Pharmacy Teachers of India (APTI)-13th Annual Convention at Guru Ghasidas University, Bilaspur(CG),[Oct.03-04, 2008]
9. Dr. B N Sinha organized QIP-2008 as Course Coordinator in Pharm. Chemistry-"Recent trends in Drug Discovery & Development" at Dept. of Pharm. Sciences, BIT, Mesra.
10. Dr. B N Sinha delivered a lecture entitled "Modern Approaches in Instrumental Analytical Techniques" at College of Pharmacy, Barpalli (Orissa) on Nov.26, 2008.
11. Dr. S. Samanta delivered Guest lecture at National Seminar in Bioinformatics organized by "Department of Biotechnology", BIT, Mesra, Ranchi in September 2008.
12. Dr. S. Samanta organized and participated in National Integration camp "NIC" held at BIT, Mesra, in June 2008.
13. Dr. R.N.Gupta was elected National Vice President of Indian Pharmaceutical Association, HQ Mumbai, session 2008-2010
14. Dr. R.N.Gupta was elected Chairman, Scientific Session at 60th Indian Pharmaceutical Conference held at New Delhi in Dec'08
15. Dr. R.N.Gupta was elected Chairman, Scientific Session at Indian Pharmacological Conference (Eastern Region) held at RIMS, Ranchi, in April'08.
16. Dr. R.N.Gupta delivered Guest lecture at Indian Pharmacological Conference (Eastern Region) held at RIMS, Ranchi, in April 2008.
17. Dr. R.N.Gupta delivered Guest lecture at UGC Refreshers Course held at Jadavpur University in Nov'08
18. Dr. R.N.Gupta delivered Guest lecture at AICTE Sponsored QIP Programme held at Jadavpur University in June 2008
19. Dr. Swastika Ganguly has been elected the Fellow of Institution of Chemists (INDIA) and has been conferred the degree of Chartered Chemist by the Institution of Chemists(INDIA).
20. The Departmental Journal Pharmbit has been included in the Natural Science Database (Biotechnology and Bioengineering, Applied Microbiology, Neurosciences, Calcium and Calcified Tissues and Toxicology abstracts)
21. Mr. S. W. Despande, Dy. Commissioner (Retd.) Food & Drugs Control Administration, Maharashtra & Director-General, AIDCOC delivered a lecture on "Spurious Drugs – Strategy for Tackling the Menace" on 19th Jan, 2009.

Department of Polymer Engineering



The Department of Polymer Engineering established in 1994, currently offers a 4-year B.E (Polymer Engg) course & a 2-year ME (Polymer Engg) course. The courses are approved by the AICTE. The Department also provides facilities for Doctoral Research in Engineering and Technology in the areas related to Polymer Science and Engineering, Chemical Engineering etc. It is proposed to start M.Tech. (Polymer Science and Technology) from next academic year.

The undergraduate and postgraduate courses are designed to serve the in-plant as well as R&D needs of Petrochemical

Industries involved in Polymer Manufacture, Polymer Processing Industries, and Polymer Processing Machinery and Tool Manufacturing industries. The students get exposed to the advanced materials characterization techniques using instruments in the Department as well as the Central Institute Facility. They gain hands on experience on various Industrial scale plastics processing machineries. Training is imparted in softwares in the areas of mould design, process simulation, mould manufacture, polymer processing, process simulation, molecular modeling etc. The students also undergo summer training in the various industries and are encouraged to take up industrial projects for their final year thesis.



The Department has state of the art facilities in all the areas of Polymer Science & Engineering – Synthesis, Characterization, Processing, and Product Development & Testing. The Department has well equipped polymer synthesis facility including a High Pressure Computer Controlled Reactor. The facilities in the Polymer Characterization Laboratory include IR Spectrophotometer, RT 20 HAAKE Rotational Viscometer, HAAKE Torque Rheometer with Mixer and Extruder, Oscillating Disc Rheometer, RIGAKU Miniflex Xray Diffractometer, Instron Tensile Testing machine, ATLAS weatherometer, Dynamic Mechanical Thermal analyzer, TA, Ultrafiltration unit etc. The facilities of Polymer Processing workshop include Injection Moulding machine, Extrusion Blow moulding machine with parison programming, Kolsite Recycling Plant, Film blowing plant and PVC pipe Extrusion plant, Two roll mixing mill, 80 ton Ergotech Microprocessor controlled Injection Moulding machine, PVC compounding mixer etc. The product Testing Laboratory is well equipped with testing facilities for various plastics products like films, sheets, pipes etc. The facilities in the Plastics Product Development laboratory includes Fused Deposition Modeling system, Stratasys, for rapid prototyping, MCP-HEK vacuum casting machine for prototyping and Mold Flow Software with Flow, Warp, and Stress Modules, 3 axis CNC EDM machine, Mould Wizard of NX Manufacturing Bundle etc. E-learning facility has been created with Paulsons Training Basic Injection Moulding, Simtech, Single Screw Extrusion, and Compounding with Twin Screw Extruder. The students are trained in Molecular Modelling using Materials Studio Software, which has the modules namely Synthia, Blends, amorphous cell, DPD and Discover.

The members of faculty are actively involved in research in the areas of polymer blends and composites, biomaterials, water desalination/purification, polymer electrolyte membranes for fuel cell/rechargeable batteries,

conducting polymer based sensors, polymer waste recycling, production of monomer from non petroleum sources, process simulation and optimization, product development, nano composites, membrane technology, tissue engineering etc. The Department has conducted several UGC and AICTE funded projects in present Academic year. Faculty members presented research papers at various conferences and attended various Workshops and Training Programme. Faculty members have also conducted several courses in Departments of Pharmaceutical Sciences, BioTechnology, Applied Chemistry, Mechanical Engineering, Space Engineering and Rocketry and Environmental Science & Engineering.

INTEGRATED INDUSTRIAL TRAINING PROGRAMME: In collaboration with BIT Extension Centre Muscat, the Department is conducting Integrated Industrial Training programme for a company Amiantit Oman, at Muscat. The Certificate courses offered are: Polymer Technology- Rotomoulding, Polymer Technology – PVC pipe production and Polymer Technology – HDPE pipe Production.

DESIGN DEVELOPMENT AND TRAINING CENTRE IN PLASTICS ENGINEERING: Department of Polymer Engineering also coordinates the activities of “Design Development and Training Centre in Plastics Engineering”, a joint venture of Department of Industries, Government of Jarkhand and BIT Mesra. The ongoing programmes are one year Certificate Programme in Plastic Processing Machine Operator for matriculates, one year Certificate Programme for Mould Making Technician for ITI qualified machine operator and one year course on Plastics Processing for graduates. All the courses are aimed at manpower development for the Plastics Processing Industries of Jharkhand. Apart from the training programmes the Centre provides consultancy and product testing facilities to the Industries.

TEQIP ACTIVITIES: Dr. M.Mukherjee, Professor and Head, and Dean Development Programme coordinated the TEQIP Programme at BIT. Many faculty members were actively involved in the project. Dr Akhil Kumar Sen, Reader, is associated with Central Instrumentation Facility. Several projects are on-going under Services to Community and Economy: (i) liquid fuels from waste plastics by Dr. C Guria and (ii) waste plastics for road construction by Dr Chandan Datta in collaboration with Deptt of Civil Engineering, (iii) Development of durable Artificial foot material, in collaboration with ALIMCO, Kanpur. Mr. Kaushik Kumar participated in various TEQIP Services to community Projects : Air Curtain Incinerator, Algal Photobioreactor, Fresnel Reflector, Hybrid Lighting system etc. Under networking activities.

Infrastructure added:

Addition of Equipments:

Sl. No.	Name of Equipments	Cost (in Rs.)	Date of Installation
1.	Manual membrane Casting Unit	18905.00	18.08.2008
2.	Karl Fisher Titrator	85000.00	14.02.2009
3.	Thermostatic Circulating Water Bath	140000.00	18.03.2009

Programmes offered:

1. Degree : BE (Polymer Engineering)
2. Degree : ME (Polymer Engineering)

Additional courses to be introduced:

M. Tech. (Polymer Science and Technology)

Eligibility : M.Sc. Chemistry / Physics / Material Science or equivalent

B. E / B. Tech Polymer / Plastic Technology / Metallurgy and Material Science / Chemical Engineering or equivalent

No of Seats : 12

Duration : 2 years

Projects

Ongoing project:

Sl. No.	Name of Project	Funding Agency	Name of P.I	Sanction Amount
1.	Development of Polymeric Hybrid Membrane for Heavy Metal Separation from Water	DST, Jharkhand	Dr. G. Sarkhel	4.88 lakhs
2	Multi-objective Optimization of Polymerization Reactors	AICTE	Dr. C Guria	Rs7.2 lakhs

Project Sanctioned:

Sl. No.	Name of Project	Funding Agency	Name of P.I	Sanction Amount
1.	Design and Development of coir fibre based low cost air cooler	Coir Board, Govt. of India	Dr. A. K. Sen	Rs. 9.79 lakhs
2.	Interpenetrating networks based on hydrophilic-hydrophobic acrylics	Dept. of Science and Tech. Govt of India	Dr. (Mrs.) S. Goswami	Rs. 10. 22 lakhs

A Project entitled "Development of Non-fluorinated Polymeric membrane for direct methanol fuel cell" submitted to Ministry of New and Renewable Energy is under active consideration ."

Seminar, conferences, short-term courses, training attended by members of faculty:

1. Dr. Chandan Datta attended workshop on Futuristic Nanocomposite, held at IIT, Kanpur, 8-12 December, 2008.
2. Dr. A. K. Sen attended one day workshop on Nano and Micro mechanical Characterisation of coating and thin film at BESU, Shibpur, Howrah, 11 Nov, 2008.
3. Dr. A. K. Sen attended Second Bangalore Nano Confrence and Exhibition, Bangalore, Dec. 11-13, 2008.
4. Dr. A. K. Sen presented a paper at National Seminar on micro and nano manufacturing at CIT, Tatisilway, Ranchi, Dec. 6-8, 2008.
5. Dr. A. K. Sen Presented a paper at 7th International conference at Plastindia 2009, New Delhi, Feb. 6-7, 2009.
6. Mr. K.Kumar Presented a paper at National Seminar on micro and nano manufacturing at CIT, Tatisilway, Ranchi, Dec. 6-8, 2008

7. Mr. S.Lahane Presented a paper at National Seminar on micro and nano manufacturing at CIT, Tatisilway, Ranchi, Dec. 6-8, 2008
8. Dr. Chandan Guria attended SERC school at Department of Chemical Engg. IIT Kanpur, 9/6/08 to 14/6/08
9. Dr. Arup Choudhury visited Bengal Engineering & Science University (BESU), Howrah, 30/03/09-31/03/09, for research discussion and procurement of electrochemical cell.
10. Mr. Sumit Kumar Jana, Mr. K. Kumar, Mr. S. Prasad Attended training on "Ansys" at B.I.T. Mesra during 16.07.08 to 20.07.08
11. Dr. G. Sarkhel, Mr Sumit Kumar Jana, Mr. S, Lahane, Dr (Mrs) Sudipta Goswami attended workshop on "Effective Teaching" at B.I.T. Mesra Ranchi, during 11 .08.08 to 14 .08.08
12. Dr (Mrs) M.Mukherjee & Dr. A.K.Sen attended Workshop on Research and Development in Engineering Education at BIT Mesra during 18.08.08 to 19.08.08
13. Mr. S. Lahane, Mr. Sumit Kumar Jana Training Programms on "CFD: FLUENT" during 20.08.08 to 27.08.08 at B.I.T. Mesra Ranchi.
14. Mr. K. Kumar attended work shop on Micro Machining and Micro Fabrication at Jadavpur University, Kolkata, during 28.08.08 to 30.08.08
15. Dr. A.K. Sen attended Workshop on "Nano & micro mechanical characterization of coatings and thin Film" at Dr. M.N.Dastur School of Materials Science and Engineering, BESU Shibpur Howrah-711103, During 11.11.2008 to 12.11.2008.
16. Dr. A. K. Sen, Mr K. Kumar, Mr. S. Lahane, each presented a paper at National Seminar on "Micro and nano manufacturing" at CIT, Tatisilway, Ranchi, during 06.12.2008 to 08.12.2008.
17. Dr. A.K. Sen attended training on "Nanotechnology in India's Future" 2nd Bangalore Conference, Exhibition, during 11.12.2008 to 13.12.2008, at The Grand Ashok, Bangalore
18. Dr. (Mrs.) M. Mukherjee, Dr Akhil Kumar Sen, Dr Arup Chowdhury visited Plast India 09, 7th International Plastics Exhibition and Conference New Delhi, 09.02.09
19. Dr C Datta attended 25th Annual meeting of the Plastics Processing Society; during 01.03.2009 to 05.03.2009, at Goa
20. Dr. A. K. Sen and Dr G Sarkhel, each presented a paper at National Seminar on "Advances in Material Technology" at NIFFT, Hatia, Ranchi, during 05.03.2009 to 06.03.2009.
21. Dr. S.Goswami attended National Seminar on "Advances in Material Technology" at NIFFT, Hatia, Ranchi, during 05.03.2009 to 06.03.2009.
22. Sk. J. Rahman presented a paper at National Seminar on "Advances in Material Technology" at NIFFT, Hatia, Ranchi, during 05.03.2009 to 06.03.2009.
23. Dr A.K.Sen, Dr Gautam Sarkhel, Mr. S Lahane attended Short term course "Design and Development of Advanced Materials" during 23.03.2009 to 27.03.2009, BIT Mesra.
24. Mr. S. Lahane, Mr Sumit Kumar Jana attended training Programme of Fluent on during 25.03.2009 to 26.03.2009 at BIT Mesra.
25. B.N.Mahato attended Training on Hydraulic Systems at University Polytechnic, Ranchi during 23.6.08 to 28.6.08.

Publications:

1. Arup Choudhury, P.Kar, M.Mukherjee and B.Adhikari "Polyaniline/Silver nano composite for Aceton Sensor", Sensor letters, 2009 (In Press).
2. Arup Choudhury "Isothermal crystallization and mechanical behaviour of ionomer treated jute / HDPE composite", Materials Science and Engineering Part A, 2008, 491, 492-500.
3. Gautam Sarkhel and Arup Choudhury "Dynamic mechanical and thermal properties of PE-EPDM based jute fibre composites" Journal of applied polymer science, 2009, 108, 3442-3453.
4. Gautam Sarkhel and Arup Choudhury "Dynamic Vulcanisation of Polyethylene-Based Thermoplastic Elastomer Blends", Journal of applied Polymer science, in Press
5. Arup Choudhury, Ashwini B and Gautam Sarkhel. "Polyamide 66/EPR-g-MA blends: mechanical modeling and kinetic analysis of thermal degradation" Polymer for Advanced Technology, 2008, 19, 1-10.
6. Sini N. K, Arup Choudhury and Gautam Sarkhel, "Effect of surface modification of carbon black on mechanical, dynamic mechanical properties of EPDM rubber" International Journal of Plastic, Rubber and Recycling, 2009, 25, 1-16.
7. Chandan Datta and R. K. Mishra " Mechanical behavior of unidirectional glass fibre reinforced Resol /Vac-EHA composites at different volume fraction of fibres" International Journal of Soft Material, 2008, 6, 3-4, 99-118.
8. Chandan Datta and R. K. Mishra "Mechanical behavior of Polyethylene fibre reinforced Resol /Vac-EHA" Journal of Macromolecular Science part-A, Pure and applied chemistry, 2009, 46, 1-13.
9. K. Kumar, S. K. Mukherjee and G. Pohit, "Virtual manufacturing of gears with chip formation" International Journal of Computer applications in Technology, 2008, 33, 1, 63-71

Patents:

1. K. Kumar S.K. Mukherjee and G. Pohit "Virtual Manufacturing of Transmission Elements", Indian Patent Application No. 1518 / Kol/07 Dated 02.11.07, Reviewed and accepted; Published on 7th May, 2009 (Patent No. to be assigned)
2. K. Kumar and G. Pohit "Virtual Manufacturing of Transmission Elements in Particular Gears", US Patent Application No. 12/000,061 dated 07.12.2007; Reviewed and accepted; Published on 5th June, 2009 (Patent No. to be assigned)
3. K. Kumar and G. Pohit "Virtual Manufacturing of Transmission Elements in Particular Gears", Copyright Registration No. L-30685/2008 Dated 03.06.2008

MOU:

MOU has been signed between BIT Mesra and Coir Board (Ministry of MSME, Govt. of India) Coir House, M.G.Road, Kochi, Kerala on 6th August' 2008 for "The design and development of coir fibre based low cost Air Cooler"

Students Activities:

1. All students and Faculty members of Polymer Engineering went to four days visit to New Delhi to visit, 7th international Plastic Exhibition, PLASINDIA, Delhi on 4-8 Feb 2009
2. Several students qualified GATE Examination. Mr Brashesh Mishra and Mr Akash joined higher studies at IIT Kharagpur.

3. Mr. Brajesh Mishra, was nominated by Institute for Research Assistantship in a Project "Plastics Waste Gasification and Pyrolysis" at The Petroleum Institute, Abu Dhabi, UAE, from 19 June till 14th July 2009.
4. Students undertook Summer Training at TATA Steel, Indian Institute of Natural Resin and Gums, Namkum, Ranchi, Apollo Tyres, Haldia Petrochemicals, Indian Oil Corporation, Bokaro Steel Plant
5. Some of the Companies which recruited BE (Polymer Engineering) students were Indian Oil Corporation, TCS, Infosys, TATA Motors, and Wipro.

Other important information:

The Department encourages Industry collaborative Research. Dr. Gautam Sarkhel and Dr. Arup Choudhury visited Artificial Limb Manufacturing Corporation Limited (ALIMCO), Kanpur, for collaborative project on failure study on PU foot for amputated leg.

Members of faculty involved in testing and consultancy to various industries, academic institution in the area of Pipe testing, Tensile testing, X-Ray diffraction etc. The various organizations were: Indian Institute of Natural Resin and Gums, Namkum, Ranchi, ISM Dhanbad, NIT Rourkela, Minor Irrigation Department, Govt. of Jharkhand, SMIT, Sikkim

Executive Committee meeting of Design Development and Training Centre in Plastics Engineering was held on 05.06.09 at BIT Mesra, Ranchi. The meeting was attended by The Secretary, Department of Industries, Govt. of Jharkhand, Mr. S. K. De Deputy Director CIPET Haldia, Four representatives from local plastic Industry, Vice Chancellor, BIT Mesra and other eminent personalities of the institute.

The Department has designed a Part time Programme B.Tech.(Polymer and Petrochemical), for personnel working in Industries in Oman. The course is to be introduced in Muscat Centre.

Department of Production Engineering



Since its inception in 1964, The Department of Production Engineering has been imparting quality education to under graduate and post graduate students by training them to meet the demands of the manufacturing industry. The Department has established links with the industry, R&D organizations, consultancy organizations and academic institutes of the near by area in furtherance of the cause of manufacturing engineering. The Department sees itself as the pathfinder of emerging technologies and techniques in the area of production engineering, develops students to be technologically and managerially sound to meet the challenges of the rapidly changing manufacturing scenario.

Keeping in view of the rapid advances in manufacturing technology, like computer controlled processes, management information systems, ERP, and new manufacturing concepts like Toyota production system (TPS), agile manufacturing, pull system etc., are reinforcing the recognition of technological, organisational, economic and human factors. Furthermore, specialised training in manufacturing technology is necessary for the young engineers to bring forth their potential. Directed at the growing requirements of industry in India and abroad, Department's interest encompasses on providing all round development requirements to would be production executives and manufacturing specialists.



The major long- range goal of the Department is to make itself a centre of excellence in teaching, consultancy and research in various aspects of Production Engineering. An increasing number of university-industry collaborations are shaping through sandwich training programmes, short term courses, workshops, and live projects for UG, PG and Doctor Level. In this respect, the Department has been able to establish well-equipped laboratories, upgrades the syllabi on regular basis and carries out its teaching and academic programme through its qualified and experienced faculty and visiting professors. Both our graduates and post-graduates have been doing well in industry and other Universities of higher learning in India and abroad.

Research and Development / Interest of Members of Faculty

1. Waste Minimization and Lean Processes
2. Manufacturing Automation & Robotics
3. Work Design and Ergonomics
4. Water Jet Technology
5. Formability of Sintered Preforms

6. Hydrodynamics of Metal Forming Processes
7. Wire Cut EDM
8. Integration issues of CAD and CAM

Programmes Offered:

1. Bachelor of Engineering (Production)
2. Master of Engineering (Automated Manufacturing System)
3. Ph.D.

Additional Programmes Started:

1. Initiatives have been taken to start following courses:
2. B.E. (Metallurgy & Materials Engg.)
3. M.E. (Safety & Maintenance Engg.)

Projects:

Ongoing Projects:

Principal Investigator	Project Title	Funding Agency	Date of Sanction	Sanction amount	Duration in year	Expected time for completion
Dr. S.Kumar	Creating infrastructural facilities for training and research in precision forming.	UGC (SAP)	2007	(32+20) lakhs	05	2012
Dr. S.Kumar	Deformation and Fracturing Behaviour of Metallic Foams	AICTE (NCP)	2006	20 lakhs	03	2009
Dr. S.K. Jha	Enhancing productivity and competitiveness of brassware manufacturing units of jharkhand	Ministry of MSME Gov. of India	2008	3.4 lakhs	01	2009

Projects Sanctioned:

Dr. S.Kumar	FIST -II	DST	Sanctioned by DST
-------------	----------	-----	-------------------

Seminar/Conferences/Short Term course (s) conducted by the Department:

Name of Programme	No. of Delegates	Name of dignitaries	Resource persons involved	Duration
Two-Days Workshop on - Precision Forming, held at the Department of Production Engineering, BIT Mesra, Ranchi	25	---	06	9th -10th Jan 2009

Seminar/Conferences/Short Term course attended by the faculty members:

Name of Faculty members	Name of the programme	Organizers	Place	Duration of the programme
Dr. S. Kumar Dr. Vijay Pandey Dr S.C.Srivastava Mr. Atul Anand Dr. Vinay Sharma Dr. B.K. Singh Dr. S. Singh Mr. R. Agrawal Mr. J. Ghose	Workshop on Effective Teaching,, Ranchi,	TEQIP, Birla Institute of Technology, Mesra	Ranchi	July-August, 2008.
Dr. S. Kumar Dr. R.K. Singh	Enhancing R & D activities in Technical Education	Cambridge Institute of Technology	Ranchi	September 2008.
Dr. Vijay Pandey Mr. Binay Kumar	Two-Days Workshop on - Precision Forming	Department of Production Engineering, BIT Mesra	Ranchi	9th -10th Jan 2009
Dr. S. Kumar Dr S.C.Srivastava Mr. R. Agrawal	National Seminar on Micro/Nano Manufacturing	Department of Mechanical Engineering Cambridge Institute of Technology	Ranchi	January 2009

Publications:**International Journals:**

1. L.N. Pattanaik and B.P. Sharma, "Implementing lean manufacturing with cellular layout : a case study", International Journal of Advance Manufacturing Technology, Springer Publications, DOI 10.1007/s00170-008-1629-8, August 2008.
2. Rajeev Agrawal, S.K. Shukla, S. Kumar and M.K. Tiwari, "Multi-Agent system for distributed computer aided process planning problem in e-manufacturing environment", International Journal of Advance Manufacturing Technology, Springer Publications, DOI 10.1007/s00170-008-1844-3, December 2008.

Books:

1. S. Kumar, Technology of Forming Process, PHI, New Delhi.
2. S. Kumar, Production Engineering Design (Tool Design), Satya Prakashan, New Delhi.

Patents:

S. No.	Application No.	Title
1.	189/ KOL/ 06.	A process for friction welding a tube to tube sheet or a plate by adapting an external tool.

Students' Activities:

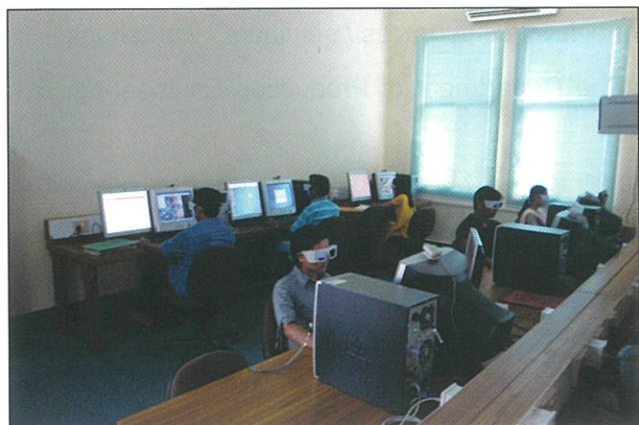
Students have attended / presented papers in following national level conferences / seminars / workshops:

1. Two-Days Workshop on - Precision Forming, held at the Department of Production Engineering, BIT Mesra, Ranchi
2. National Seminar on Micro/Nano Manufacturing, Department of Mechanical Engineering, Cambridge Institute of Technology, Ranchi

Other Information:

1. Journal of Manufacturing Technology & Research, ISSN No.: 0973-0281- Published Quarterly. The journal is started in July 2004.
2. An invited Seminar/Technical lecture by Dr. R.K.Dave, FIE, Fellow Emeritus, RGPV, Jabalpur and council member IE (I) has been arranged.
3. An invited Seminar/Technical lecture by Prof. (Mrs.)Roma Mitra Debnath, IILM –GSM, Knowledge Park, Greater NOIDA, has been arranged.
4. An invited Seminar/Technical lecture by Experts person from TATA Technologies, Jamshedpur and BIT, Mesra Digital Manufacturing Current Trends and Future scope, has been arranged.

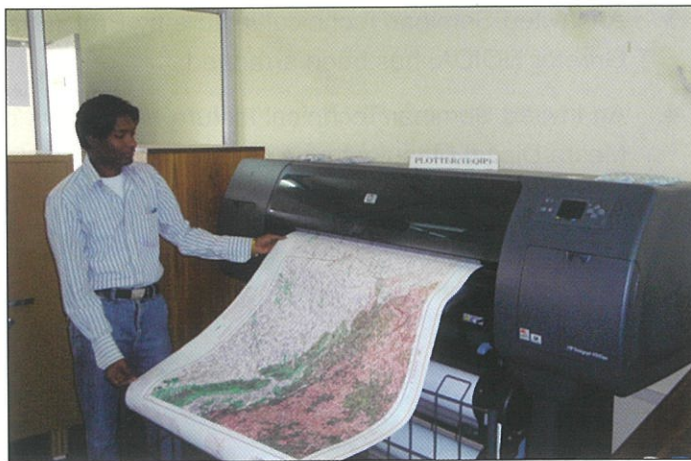
Department of Remote Sensing



The world is being scanned continuously by highly sophisticated Earth Resources Satellites like IRS (India), LANDSAT (USA), SPOT, (France), ERS (ESA), RADARSAT (Canada), IKONOS and Quickbird etc. Availability of repetitive remote sensing (RS) data in digital and pictorial forms has increased the scope of identifying, mapping, monitoring, classifying and evaluating different forms of renewable and non-renewable earth resources using multi-spectral, multi scanner and multi-temporal RS data products. The benefits of space technology, both direct and indirect, have introduced new dimensions into

the study and understanding of Earth's processes and in improving the quality of life for the people living on it.

The application of Remote Sensing techniques, Geographic Information System (GIS) and Global Positioning System (GPS) in various activities including resources evaluation, environmental monitoring and land use/ land cover mapping etc, has grown considerably during the last three decades and RS data products are being increasingly used for plan formulation at all levels. An essential pre-requisite to partaking in these opportunities is the building of various indigenous capacities for the development and utilization of space science and technology. This has led to a spurt in the demand for qualified manpower. Keeping this in view the Department of Remote Sensing was established at the Institute in 1997.



The Department has set up various laboratories to provide hands-on training to its postgraduate students such as for Digital Image Processing, GIS, GPS and Satellite Navigation, Photogrammetry and Digital Photogrammetry, Cartography & Image Interpretation. Forty-five Pentium-4 computers, workstations, server have been installed. The Department has procured and installed Magellan ProMark V Global Positioning system (GPS), LEICA DGPS, Umax Scanner, Widecom Scanner A0, HP A1 Printer, HP A0 Plotter, Procom-2 Optical Pantograph, Mirror Stereoscopes, GTR, etc. The Department has also procured latest software for GIS, Cartography and Digital Image Processing such as ArcGis, ERDAS Imagine, ERDAS Virtual GIS, LEICA Photogrammetry Suit, PCI Geomatica, Image Analyst, Modular GIS Environment (MGE), IIRAS, ENVI IDL, Geomedia Professional, Geomedia Intersite Interplot Professional, Micro station SE, Oracle 8.0, etc.

The Department of Remote Sensing is now DST-FIST sponsored and UGC SAP supported Department. The Department of Science of Technology, of the Govt. of India has identified the Department to establish the district NRDMS Center. The Department is also engaged in various R & D Project and consultancy jobs from ISRO, DOS, Government Organisations and other agencies.

Infrastructure added : Laser Colour Printer (A3 Size)

Programmes offered : M. Tech. (Remote Sensing), M.Sc.(Geoinformatics), Ph.D

Ongoing projects:

Sl. No.	Research Project Topic	P.I./Co-P.I.	Funding Agency	Amount Sanctioned
1.	Glacial "Retreat and Mass Balance studies in Zaskar Valley, J & K Himalayas.	Dr. M. S. Nathawat, Dr. A. C. Pandey	SAC Ahmedabad	Rs. 33.40 Lakhs
2.	National Wasteland Mapping	Dr. M. S. Nathawat Dr. V. S. Rathore	NRSC Hyderabad	Rs. 35.00 Lakhs
3.	Land & Water Audit in Jharkhand State using Geoinformatics	Dr. M. S. Nathawat Dr. A. C. Pandey	SAP UGC	Rs. 36 Lakhs
4.	FIST Project	Dr. M. S. Nathawat	DST, Gol	Rs. 38 Lakhs
5.	NUIS Thematic Mapping	Dr. M. S. Nathawat	NRSC, Hyderabad	Rs. 26 Lakhs

Projects Sanctioned :

Sl. No.	Research Project Topic	P.I./Co-P.I.	Funding Agency	Amount Sanctioned
1.	"Development of Forest Fire Management System in Shimla forest division in Himachal Pradesh (India) using Geo spatial information system"	Dr. L. K. Sharma	Ministry of Environment & Forests, Govt. of India, New Delhi	Rs. 21.56 Lakhs

Projects completed :

Sl. No.	Research Project Topic	P.I./Co-P.I.	Funding Agency	Amount Sanctioned
1.	Geo-Informatics based water resource management plan for Ghad sub-watershed, Maharastra	Dr. R. Sivakumar	DST, Gol	Rs. 10.02 Lakhs
2.	Demarcation of younger arsenic affected alluvium along Ganga river in parts in Bihar	Dr. M. S. Nathawat, Dr. A. C. Pandey Dr. V. S. Rathore	CGWB Patna	Collaborative Project

Seminar / Conferences / Short Term Courses conducted by the Department:

The Department conducted EDUSAT Programme in RS & GIS in which 17 faculty and 20 students from different Departments of Institute participated. Dr. M. S. Nathawat was the Institute Coordinator for the programme and the successful candidates were awarded certificate. The programme was telecast by IIRS Dehradun.

A. C. Pandey, Worked as Co-Coordinator, in the training programme on "Basic Concepts on Micrometeorology, Land Surface Processes: Its Observational Techniques and Analysis" during February 10-20, 2009, organised by Department of Applied Mathematics, Birla Institute of Technology, Mesra and sponsored by Department of Science & Technology, Govt. of India, New Delhi.

Seminar / Conferences / Short Term Courses attend by the faculty:**National:**

1. Sharma, L. K., attended seminar on "Role of Green Computing in Mitigating Environmental Conflicts": March, 18-19, (2008), at Dept. of Environmental Science and Technology, Birla institute of Technology, Mesra, Ranchi.

2. Praveen Kumar, Pandey A. C., Nathawat M. S. (2008) Glacier Hazards monitoring using remote sensing data. Abstract in proceedings, national seminar on Geomorphology in disaster management, XX annual conference of Indian Institute of Geomorphologist (IGI), 15-17 Feb. 2008, BHU, Varanasi.
3. A. C. Pandey, attended national symposium on "Advances in remote sensing technology with special emphasis on microwave remote sensing" during 18-20 December 2008, Ahmedabad, India.

Invited Lectures Delivered:

1. N. Patel, Delivered Lectures on Digital Image Processing and GIS in the two weeks training programme on Remote Sensing & GIS organized by SMIT, Rangpo, Sikkim during Jan 14-27, 2008.
2. A. C. Pandey, Delivered Invited Lecture on "Conservation of Aquifers: Need Towards Sustainable Development of Water Resources- A Geoinformatics perspective" at during seminar on water conservation by Yugantar Bharati-NGO at ATI, Ranchi, April 2008.
3. A. C. Pandey, Delivered Invited Lecture on "Earthquake Safety" in a Disaster Management training organized by SKIPA at ATI, Ranchi, July, 2008.

Publications:

International:

1. Rathore, V. S., Nathawat, M. S., and Champatiray, P. K. (2008). "Influence of neotectonic activity on ground water salinity and playa development in Mendha river catchment, western India", International Journal of Remote Sensing, Vol 29 (13) pp 3975-3986.
2. Kirti Avishek, Nathawat, M.S., Gopal Pathak, (2009). "Identifying the driving forces of landscape change using Geoinformatics: A case study for Kanke, Namkum & Ratu Blocks of Ranchi district" International Journal of Earth science & Engineering. April 2009, p.p. 112-119.
3. Kirti Avishek, Gopal Pathak, M. S. Nathawat, Usha Jha, Neeta Kumari, "Water Quality Assessment of Majhiaon Block of Garwa district in Jharkhand with special focus on fluoride analysis", International Journal of Earth Sciences and Engineering. Vol.02, Feb. 2009, pp. 112-119.
4. Mandal N., Nathawat M. S., Khare A. (2008) "Community Participation In The Construction of New School Buildings Under The District Primary Education Programme In India" in ABACUS Vol. 3, No. 2, pp 63-68.

National:

1. Mishra M., Sharma L.K. and Nathawat M.S. (2008). "Quantification of Biomass in Kharagpur Forest Division in Bihar Using RS and GIS Approach", Journal of Eastern Geographer, XIV (1):7-12.
2. Sharma L.K. (2008). "Micropropagation of Ageratum conyzoides L. An Important Medicinal Plant", Journal of Phytological Research, 8 (09): 42-47.
3. Lal, R, Sharma, R.N.K and R. Sivakumr (2008), "Geoinformatics in Tourism- A Case Study", A Journal of Hospitality Applications and Research, Vol. 3., No.2, pp. 67-75.
4. Mohan Lalit, Dhawan S. C. and Krishna A. P. (2008), Web Based Tourism Information System Using Geographical Information System (GIS) – A Case study. Journal of Hospitality Application and Research, Vol. 3(2), pp. 76-90.
5. Mishra B. K., Nathawat M. S., Gautam N. C. (2008) "Integrated Assessment of Groundwater Resources in an Agro-based Rural Watershed of Hard rock Terrain in India-A Case Study in Chhoti Narmada Watershed Chhatisgarh, India", Geo-Spectrum Interface, Vol. 3, No. 1, June 2008, pp 43-47

6. Rathore, V. S. and Nathawat, M. S., (2008) "Remote Sensing for Deriving Neotectonic Evidences from Disorganize River Course and Riverine Geomorphology of Mendha River Area, Rajasthan" Journal of Earth Science, Vol. 2, No. 4, pp 62-72.
7. Kirti Avishek, Nathawat M. S. (2008) "Urban Wetland Change & Vulnerability Analyses Using Geoinformatics" in Eco Chronicle Vol. 3, No. 2 June 2008, pp 119-126
8. Sailaja B. Rao, P. Subrahmanyaswara, Nathawat, M. S. and Rao, N. H. 2008 b. "Combination of image analysis techniques for rice area estimation". Journal of Environment and Ecology, 26(1): 121-125.
9. Kirti Avishek, Nathawat M. S (2008). " Ecosystem Management using Geospatial technology". Journal of Regional Sciences. Vol. XXXX, No. 2, 2008, pp. 77-83.
10. Kirti Avishek, Nathawat, M. S., (2008). "A Geoinformatics Approach to Urban Wetland Change & Vulnerability Analysis. Eco-chronicle" A Quarterly International Journal on Environment & Ecology. September 2008.
11. Mishra, B. K., Nathawat, M. S., Gautam, N. C. (2008). " A Quality Assessment of Groundwater as a Source of Drinking Water – A Case Study in Chhotinarmada Watershed, Chhatissgarh, India". Eco- Chronicle, Vol. 3, No. 1. March 2008, pp 43-46.
12. Mondal S, Pandey A.C. and Garg R.D. (2008). "Hydrogeomorphological mapping for Groundwater prospect evaluation using multi-temporal satellite images in a part of Lower Garhwal Himalayas". Indian Jour. of Remote Sensing (ISRS), vol. 36, pp.69-76.
13. A.C. Pandey, M.S. Nathawat, Milli Ghose, A.S. Arya and Ajay, (2008). "Landform mapping for desertification severity assessment in Jaiselmer and its environs using IRS-LISS-III and ENVISAT ASAR satellite data" Proceedings National symposium on Advances in remote sensing technology with special emphasis on microwave remote sensing, 18-20 December 2008, Ahmedabad, India

Publications in Conferences:

International:

1. Kirti Avishek, Pathak Gopal, Nathawat M. S. 2008. Landscape Ecological Mapping: A Tool towards Green Productivity. 7th International Ecocity Conference. San Francisco. USA. 22-26th April, 2008.

National:

1. Sharma, L. K., attended seminar on "Role of Green Computing in Mitigating Environmental Conflicts": March, 18-19, (2008), at Dept. of Environmental Science and Technology, Birla institute of Technology, Mesra, Ranchi.
2. Praveen Kumar, Pandey A. C., Nathawat M. S. (2008) Glacier Hazards monitoring using remote sensing data. Abstract in proceedings, national seminar on Geomorphology in disaster management, XX annual conference of Indian Institute of Geomorphologist (IGI), 15-17 Feb. 2008, BHU, Varanasi.

Book Published:

1. Nathawat, M. S. and Pandey A. C., Geoinformatics for Decentralized Planning and Governance, Rawat Publication 2008, ISBN 81-316-0117-X
2. "Geoinformatics for Decentralized Planning and Governance", edited by M.S. Nathawat & A.C. Pandey. Published by Rawat Publications, Jaipur, 2008.

Award / Honours Bestowed:

1. Dr. N. Patel, Professor, awarded Shiksha Rattan Award by the India International Friendship Society, New Delhi.
2. Dr. N. Patel, Professor, awarded Best Citizens Award by the International Publishing House, New Delhi.

Other information:

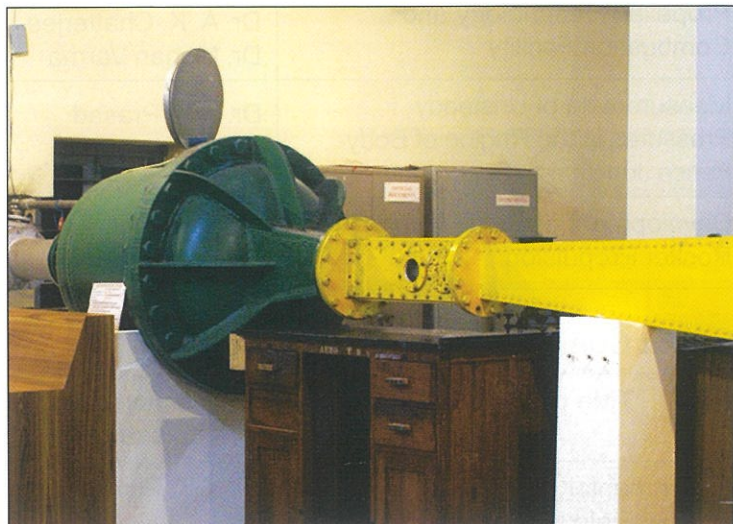
1. Dr. N. Patel, Regional Editor, Research Journal of Environment and Earth Sciences, Maxwell Science Publication.
2. Dr. N. Patel, Regional Editor, Research Journal of Applied Sciences, Engineering & Technology, Maxwell Science Publication.
3. Dr. N. Patel, Regional Editor, Research Journal of Information Technology, Maxwell Science Publication.
4. Dr. N. Patel Regional Editor, Asian Journal of Agriculture Sciences, Maxwell Science Publication.

Department of Space Engineering & Rocketry



In addition to the existing M. E. Programme in Space Engineering and Rocketry with two specializations, viz. Aerodynamics and Rocket Propulsion, started in 1968, the Department has been offering an M. Tech. Programme in Fuels and Combustion since 2002.

The Department is actively engaged in the process of modernization of its various laboratories, besides setting up of new laboratories/ facilities. The faculty members have been carrying out R&D work in the broad areas of Aerodynamics, Combustion, Propellant Technology, Rocket Propulsion and Composite Materials, and have as Many as five (4) Grant- in- Aid On- going Projects in these areas.



Infrastructure added:

Sl. No.	Name of Equipment	Qty.	Date of Purchase	Cost (in Rs)	Project / Lab. Expenses
1.	2 Ton AC	2 Nos.	10.04.08	55,400	SAP Project
2.	5 KVA Servo Voltage Stabilizer	3 Nos.	14.04.08	48,000	SAP Project
3.	5 KVA Online UPS System	2 Nos.	30.04.08		SAP Project
4.	i. DAQ-9172-8 Slot USB ii. NI 9229-4 Chanel iii. NI 9211-4 Chanel	1 No. 1 No. 1 No.	30.04.08	3,76,630	SAP Project
5.	Air Dryer	1 No.	04.06.08	69,000	DRDL Project
6.	High Speed Camera	1 No.	05.08.08		SAP Project
7.	De humidifier	1 No.	18.08.08	1, 95, 000	SAP Project
8.	Environmental Chamber	1 No.	19.09.08	95,000	DRDL Project
9.	REMI Stirrer	1 No.	11.11.08	9,300	DRDL Project
10.	Imported Ceiling Mounting Kit	1 Set	12.01.09	12,000	SAP Project

Programmes offered : M. E. in Space Engineering & Rocketry
M. Tech. in Fuels & Combustion

Ongoing Projects:

Title of the Project	Name of the Investigator	Sponsoring Agency	Duration	Amount (in lakhs)
Investigation of Flow Field Interaction around Protrusions at Supersonic Speeds	Dr. J. K. Prasad Shri Sudip Das	ISRO (RESPOND)	2004 – 2006	9.30
Propellant Technology and Combustion Facility	Dr. A. K. Chatterjee Dr. Mohan Varma	DST (FIST)	2005 – 2010	25.00
Measurement of Unsteady Pressures in the Region of Body-Fence Junction at Supersonic Speed	Dr. J. K. Prasad	Min. of Defence DRDL	2007– 2008	7.18
Development of Cryo - Hybrid Rocket Propulsion	Dr. A. K. Chatterjee Dr. P. C. Joshi	UGC (SAP - II)	2007 – 2012	49.00

Project Completed:

Title of the Project	Name of the Investigator	Sponsoring Agency	Duration	Amount (in lakhs)
Experimental Investigation of Flow Field around Protrusions at Supersonic Speeds	Dr. J. K. Prasad	Min. of Defence AR & DB	2003 – 2005	8.26
Experimental Investigation of Flow Field around Slender Body at High Angles of Attack	Dr. J. K. Prasad Shri Sudip Das	Min. of Defence AR & DB	2004 – 2008	7.22
Development of Gel Propulsion System for Reaction Control System using UDMH & RFNA	Dr. Mohan Varma Shri C. R. Chodankar	Min. of Defence DRDL	2005 – 2007	23.00

Seminar / Conference / Short Term Courses conducted:

Twenty Second National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, November 27 -29, 2008

Organised Special Course on Propulsion and Aerodynamics, for 10 Officers of DRDL, Hyderabad, Dec 04 – 17, 2008.

Seminar / Conference / Short Term Course attended by faculty members:

1. Dr. A. K. Chatterjee attended 38th Annual ISTE Convention & National Seminar on "Autonomy and Accountability of Technical Education in Changing Scenario", KIIT University, Bhubaneswar, Dec 19- 21, 2008.
2. Dr. Mohan Varma attended Workshop on "Research & Development in Engineering Education", BIT, Ranchi, Aug 18- 19, 2008.

3. Dr. Mohan Varma attended East Zone Vice Chancellor's Conference (As University Nominee), Magadh University, Bodh Gaya, Sep 17- 19, 2008.
4. Dr. Mohan Varma attended Sub-Regional Conference of South, South West and Central Asia on Higher Education, New Delhi, Feb 25- 26, 2009.
5. Dr. J. K. Prasad attended 35th National Conference on Fluid Mechanics and Fluid Power, PES Institute of Technology, Bangalore, Dec 11- 13, 2008.
6. Dr. J. K. Prasad attended National Conference on Wind Tunnel Testing (NCWT-20), Bangalore, Mar 12-14, 2009.
7. Prof. Sudip Das attended 35th National Conference on Fluid Mechanics and Fluid Power, PES Institute of Technology, Bangalore, Dec 11- 13, 2008.

Publications:

International Journals:

1. Guria, Chandan., Varma, Mohan., Mehrotra, Surya P. and Gupta, Santosh K., "Optimal Synthesis of an Industrial Beneficiation Plant using a jumping Gene Adaptation of Genetic Algorithm – II: More Complex Problems", Int. J. of Mineral Processing, In Press.

National Journals:

1. Das, S. and Prasad, J. K., "Cowl Deflection Angle in a Supersonic Air- Intake" Defence Science Journal, Vol. 59, No. 2, pp. 99 – 105, Mar 2009.
2. Das, S. and Prasad, J. K., "Flow Field Investigation of a Rectangular Supersonic Air- Intake with Cowl Bending" Journal of Aerospace Sciences and Technologies, Vol. 61, No. 2, pp. 312 – 324, May 2009

International Conference / Proceedings:

1. S. Das and J. K. Prasad, "Characteristics of a Supersonic Air-Intake with Bleed", International Conference on Aerospace Science and Technology, Bangalore, June 26-28, 2008.
2. S. Das and J. K. Prasad, "Flow Field a Re-Entry Capsule at Supersonic Speeds", International Conference on Aerospace Science and Technology, Bangalore, June 26-28, 2008.
3. S. Das and J. K. Prasad, "Alleviation of Unstart of a Supersonic Intake Adopting Cowl Deflection and Bleed", 12th Asian Congress of Fluid Mechanics, Daejeon, Korea, Aug 18-21, 2008.
4. S. Das and J. K. Prasad, "Computation of Flow Field Re-Entry Capsule at Supersonic Speeds", 12th Asian Congress of Fluid Mechanics, Daejeon, Korea, Aug 18-21, 2008.
5. J. K. Prasad and S. Das, "Investigation of Flow Field around Blunt Protrusions at Supersonic Speed", 12th Asian Congress of Fluid Mechanics, Daejeon, Korea, Aug 18-21, 2008.

National Conference / Proceedings:

1. Das, S., and Prasad, J. K., "Effect of Mach Number on the Performance of a Mixed Compression Speed" Proceedings of Twenty Second National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, B.I.T., Mesra, Ranchi, Nov 27-29, 2008.
2. Das, S., Prasad, J. K., Thakur, D. N. and Paneerselvan, S., "Flow field on a Forebody of Hypersonic Research Vehicle at Supersonic Speed" Proceedings of Twenty Second National Convention of

Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, B.I.T., Mesra, Ranchi, November 27 – 29, 2008.

3. Bogadi, S., Das, S., Kumar, P. and Prasad, J. K., "Investigation of flow field around a Reentry Capsule at Supersonic Speed" Proceedings of Twenty Second National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, B.I.T., Mesra, Ranchi, November 27 – 29, 2008.
4. Kumar, P., Das, S., and Prasad, J. K., "Flow Field around Blunt Fin of different Thickness at Supersonic Speed" Proceedings of Twenty Second National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, B.I.T., Mesra, Ranchi, November 27 – 29, 2008.
5. Nagaraja, S. R., Jagadesh, G. and Prasad, J. K., "Experimental Investigation of Shock Wave Loaded Metal Plates" Proceedings of Twenty Second National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, B.I.T., Mesra, Ranchi, November 27 – 29, 2008.
6. Asokan, R., Dash, P. K., Arumugam, V. and Stanely, A. J., "Application of AET on Damage Characterization of Single Lap Bonded Composite" Proceedings of Twenty Second National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, B.I.T., Mesra, Ranchi, November 27 – 29, 2008.
7. Jyoti, B. V. S. and Varma, M., "Ignition of Combustion Studies of Gel Propellant" Proceedings of Twenty Second National Convention of Aerospace Engineers & National Seminar on Present Status and Technological Challenges of Indian Aerospace Programme, B.I.T., Mesra, Ranchi, November 27 – 29, 2008.
8. Das, S., and Prasad, J. K., "Effect of Incidence on Internal Shock Characteristics of a Mixed Compression Supersonic Air-Intake" Proceedings of 35th National Conference on Fluid Mechanics and Fluid Power, PES Institute of Technology, Bangalore, Dec 11 -13, 2008.
9. Singh, A. K., Kumar, P., Das, S., and Prasad, J. K., "Flow Field Around Two Dimensional Multiple Cylinders at Subsonic Speed" Proceedings of 35th National Conference on Fluid Mechanics and Fluid Power, PES Institute of Technology, Bangalore, Dec 11 -13, 2008.
10. Kumar, P., Das, S., and Prasad, J. K., "Effect of Reynolds Number over a Blunted Delta wing at Subsonic Speed" Proceedings of 35th National Conference on Fluid Mechanics and Fluid Power, PES Institute of Technology, Bangalore, Dec 11 -13, 2008.
11. Nath, B., Das, S. and Prasad, J. K., "Flow Field Study on a 65deg. Blunted Delta Wing", CP-6, National Conference on Wind Tunnel Testing (NCWT-20), Bangalore, Mar 12-14, 2009.
12. Das, S. and Prasad, J. K., "Effect of Cowl Bending and Bleed on the starting characteristics of a Supersonic Air Intake", CP-7, National Conference on Wind Tunnel Testing (NCWT-20), Bangalore, Mar 12-14, 2009.

Awards / Honours Bestowed:

1. Dr. A. K. Chatterjee was nominated Chairman, Bihar & Jharkhand Section, Indian Society for Technical Education, 2008 – 09.
2. Dr. A. K. Chatterjee was nominated chairman, Aerospace engineering Division Board, The Institution of Engineers (India), 2008 – 09.

3. Dr. Mohan Varma was conferred Shiksha Ratna Puraskar – 2008 by IIFS, New Delhi for attending Excellence in Teaching Profession in India.
4. Dr. Mohan Varma was nominated Expert member on DRDO Project Assessment Committee for HEMRL, Pune.
5. Dr. Mohan Varma has been elected as member on the National Executive Council of High Energy Materials Society of India, 2007-2009.
6. Dr. J. K. Prasad has been elected Member, Executive Committee, National Society of Fluid Mechanics and Fluid Power, 2008-2010.
7. Dr. J. K. Prasad has been made as Member of executive Committee of National Wind Tunnel Society of India.

Environmental Science & Engineering Group



The Environmental Science & Engineering Group (ESEG) was established in the year 2002. It offers a full time 2-year programme in M-Tech Environmental science & Engineering. The course has an intake of 18 seats and presently it is running successfully with 13 students from different parts of the country. As a part of the curriculum the students undergo two semesters Industrial training/research project in different National & private organizations. Presently some of our students are absorbed in organization of national repute like NBRI (Lucknow), NPL (New Delhi), NCL (Pune), IIT (Delhi), IIT (Powai) & TERI (New Delhi). Our Current batch students

are pursuing their M-tech projects in organizations like Tata Steels, TERI Delhi, ISM Dhanbad, IISc Bangalore & NEERI Nagpur etc. ESEG is emerging as a center of excellence in the field of environment. ESEG has well established laboratories in collaboration with the other Departments of the institute. ESEG is also engaged in various research & developmental projects. ESEG has submitted a UNICEF's project on "Water Quality Assessment & Mapping in Palamau & Garhwa with special focus on fluoride". The project dealt with the study and assessment of fluoride problems persisting in the area. A village level study was conducted for the 10 major blocks in Garwa and Palamu. The group is also in progress to take some other major projects from state as well as other organizations. ESEG offers a Ph.D Programme on the topics related to environmental issues. Researchers from most of the established central government organizations like Steel Authority of India, CMPDI, CCL & MECON Ltd are pursuing their Ph.D research in the field of environment Science & engineering. The key research areas are Air Pollution, Fluoride Mitigation, water Pollution, Environmental Laws, Ecosystem, Eco-Audit, Eco Designs & application of GIS in Environmental Management. The group had also conducted a two days National Seminar on "Green Productivity & Sustainable Development" on 10th –11th March 2005. The Institute has been identified as an State Referral Institute and an MOU was entered between Drinking Water and Sanitation Department, Government of Jharkhand & BIT, Mesra for community based National rural drinking water quality monitoring & surveillance Programme. ESEG has facilitated implementation of activities of this programme as per the training strategies & modules for capacity building of surveillance agencies at different levels. Also ESEG, BIT, Mesra is helping the DWSD, Government of Jharkhand to update the laboratory facilities for Drinking water in different districts. The Department proposes to start a M-Tech Course on Sustainable Development Engineering.

Programme offered : M-Tech Environmental Science and Engineering

Publications:

International Journals:

1. Kirti Avishek, Nathawat M.S. "A Geoinformatic Approach to Urban Wetland Change & Vulnerability Analysis" *Eco Chronical –A Quarterly International Journal on Environment & Ecology*. September 2008.
2. Khageshwar Pradhan, P. C. Mishra, Kirti Avishek. "Environmental Quality Assessment Studies of Coal handling on Peripheral land near Kanika siding, Basundhra-Garjanbahal Area of MCL, Sundergarh,

Orissa" India International Journal of Environmental Monitoring and Assessment. Springer Pub. March 2009 (Available Online).

3. Kirti Avishek, Nathawat M.S., Gopal Pathak. "Identifying the Driving Forces of Landscape Change using Geoinformatics: A Case study for Kanke, Namkum & Ratu Blocks of Ranchi District" International Journal of Earth Sciences Engineering. April 2009.
4. Iqbal, J. & Guria, C. "Optimization of an operating domestic wastewater treatment plant using elitist Non-dominated Sorting Genetic Algorithm", Chem. Eng. Res & Design, (2009).

National Journals:

1. Kirti Avishek, Gopal Pathak, Nathawat M.S. "Ecosystem Management using Geospatial Technology" Indian Journal of Regional Sciences. Vol 40, No.2, Regional Science Association, India. Dec .2008.

International Conferences:

1. Gopal Pathak, Peter Jaffe, Kirti Avishek, Luke Macdonald, (2008). "Fluoride in Ground Water: Health Effects and Removal Strategy" International Conference on Contaminated Soil, Sediment and water .Oct 2008.

Award / Honours bestowed:

1. Dr Gopal Pathak received an Award Certificate for the leadership shown in follow up activities after attending the 2008 Indo-US Engineering Faculty Leadership Institute under Indo-US Collaboration for Engineering Education (IUCEE) in June 2009 held in Mysore.
2. Dr. Gopal Pathak visited the Department of Civil and Environmental Engineering, Princeton University, USA as Visiting Professor during spring 2009.
3. Dr. Gopal Pathak has been appointed as a member of Scientific Advisory Board for the 24th Annual International Conference on Contaminated Soils, Sediments and water going to be held at University of Massachusetts, AMHERST, USA during Oct. 2008.
4. Dr. Gopal Pathak has been appointed as a member of Scientific Advisory Board for the 25th Annual International Conference on Contaminated Soils, Sediments and water going to be held at University of Massachusetts, AMHERST, USA during Oct. 2009.
5. Mr.Kirti Avishek, Lecturer, has been appointed as a member of the Editorial Board of Research Journal on Environment and Earth Science, Maxwell Scientific Organisation, UK.

Students activities:

1. M.Tech Students were involved in inhouse brickette making using waste leaves and paper.
2. M-Tech Students visited the waste water treatment plant of BIT, Mesra.
3. Ms. Moushami Hazra has communicated two papers in International Journals (Springers) along with Mr.Kirti Avishek (Lecturer).

Technical Education Quality Improvement Programme

The Technical Education Quality Improvement Programme (TEQIP) of Government of India (GOI) aimed to upscale and support ongoing efforts of GOI to improve quality of technical education and enhance existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and forward looking, and responsive to rapid economic and technological developments occurring both at national and international levels.

Under second cycle of TEQIP-GOI, Birla Institute of Technology, Mesra was identified as a Lead Institution. Three Institutions Birsa Institute of Technology, Sindri, Govt. Polytechnic, Ranchi and Govt. Polytechnic, Dumka were identified as Network Institutions. BIT, Mesra was allotted a grant of Rupees 20 Crore under the Project. The TEQIP-Cell, BIT, Mesra started its activities from 2005, and the Project concluded on 31st March 2009. The project at state level is coordinated by State Project Facilitation Unit (SPFU) of Department of Science and Technology, Government of Jharkhand and at national level by National Project Implementation Unit (NPIU). This academic year, TEQIP Cell actively worked towards completion of various project components, as guided by NPIU. Institutional Self Assessment and Resource utilization Reports were prepared, Inputs for preparation of Implementation completion Report (ICR), by World Bank were also provided.

Institutional Development at BIT Mesra:

Institutional Development was to be achieved through three subcomponents :

1. Promoting academic excellence,
2. Networking of institutions for quality enhancement and resource sharing,
3. Enhancing quality and reach of services to community and economy.

Promotion of Academic Excellence:

Plan for promotion of Academic excellence covered activities such as:

1. Improvements in teaching, training and learning facilities
2. Academic Reforms
3. Tribal Development Plan
4. Faculty and staff development
5. Intensive interaction with industry
6. Improvements in Institutional governance, management and administrative practices

Improvements in teaching, training and learning facilities:

Some New Laboratories, including Central Instrumentation Facility (CIF), VLSI (Cadence) Laboratory, MATLAB 60 user Laboratory and DSP Laboratory were established. Facilities in various Departmental Laboratories were augmented. Softwares procured as Learning Resources has greatly improved CAD facilities in all Departments and Central CAD laboratories. Project expenditure for Equipment and Learning Resources were Rs 11.410 crores and Rs.2.706 crores respectively.

Central Instrumentation Facility (CIF):

In order to cater to the needs of different Departments, and for maximum utilization of instruments, Central Instrumentation Facility, having high value sophisticated instruments, has been created. The facilities are being extensively used by Post Graduate Students, Doctoral Research Scholars and Sponsored Projects for Advanced Research. This facility is also extended to External Organizations, mainly Academic Institutions of the region on nominal chargeable basis.

In the academic year 2008-09, following instruments were installed:

1. Inductively coupled plasma optical emission spectroscope, Perkin Elmer, USA.
2. Microwave Digestion System - Multiwave 3000, Anton Paar, Austria.
3. Ultraviolet – Visible Spectroscope – Lambda 25, Perkin Elmer, USA.

CIF facilities include:

1. Electrochemical analyzer, CHI Instruments
2. Gel Permeation Chromatograph, Waters
3. Differential Scanning Calorimeter, TA Instruments
4. Particle size, Molecular weight and Zeta potential analyzer, Malvern
5. Thermo Gravimetric Analyzer, Shimadzu
6. FTIR Spectrophotometer, Shimadzu
7. Chemiluminescence Spectrophotometer, Shimadzu
8. Color measurement system, Hunter Lab
9. Element analyzer, CHNSO, Elementar
10. Pulse analyzer, Oros
11. Porosity meter, Thermoelectron
12. Atomic Force Microscope, NT-MDT
13. Surface Tensiometer- plate and ring drop, Dataphysics
14. Servo hydraulic dynamic tensile testing machine, Instron
15. PCB Prototyping Machine,
16. Robotics kits

The facility was used for laboratory classes by the following Departments:

1. Undergraduate: Applied Chemistry, Mechanical Engineering, Production Engineering, Polymer Engineering
2. Postgraduate M.Sc./ME/MTech/M. Pharm: Production Engineering, Applied Mechanics, Applied Physics, Polymer Engineering, Electronics and Communication Engineering, Space engineering and Rocketry and Environmental Science Departments, Pharmaceutical sciences..

Presently, around 32 Doctoral Research Scholars from the Applied Chemistry, Applied Mechanics, Applied Physics, Biotechnology, Production Engineering, Polymer Engineering and Pharmaceutical Sciences are working regularly in the lab.

The CIF has carried out sample testing works for Academic, Research and private Institutions like ISMU Dhanbad, Ranchi University, Jadavpur University, NIT Rourkela, Indian Institute of Natural Resins and Gums, Jaypur College of Pharmacy Orissa, Central Institute of Mining and Fuel Research, Ranchi, RVS College of Engineering, Jamshedpur, KMCH College of Pharmacy, Tamil Nadu, JKK Natraj College of Pharmacy, Tamil Nadu, Sri Ram Nath Singh Mahavidyalaya, MP, Gupta College of Technological Sciences, Asansol, Guru Ghasidas University, Chhattisgarh, Magadh Mahila College, Patna and M/s Park Nano, Ranchi. The total revenue that has been generated by the CIF through the various testing is Rs. 5,08,101.82/- (Rupees Five Lacs Eight Thousand One Hundred One).

The facility was also utilized for training of participants of the following programme:

1. The DST – SERC School on “Science and Technology of Processing Plasma” (December 15 – 27, 2008), hosted by the Dept of Applied Physics, BIT Mesra.
2. Quality Improvement Program on “Drug Discovery Approaches” (May 4 – 16, 2009), organized by the Dept of Pharmaceutical Sciences.
3. Quality Improvement Program on “Emerging Trends in Herbal Drug Technology” (May 18 – 30, 2009), organized by the Dept of Pharmaceutical Sciences.
4. Quality Improvement Program on “Advances in Targeted Drug Delivery System” (June 1 – 13, 2009), organized by the Dept of Pharmaceutical Sciences.

Following Training programmes were conducted for benefit of the Staff of CIF as well as all researchers of the Institute:

1. One day training programme on “Scanning Probe Microscope” by Mr. Alexy Kazankov, NT-MDT, Russia, on November 10, 2008.
2. One day training programme on “Electrochemical Analyzer” by Mr. S.S. Mahapatra, Bengal Engineering and Science University, Shibpur, W.B., on February 12, 2009.
3. Dr. Mrinal Mishra, Lecturer, CIF, attended a workshop on “Computational Material Science’, organized by Department of Materials Engineering, IISc Bangalore, during 6-8 March 2009.

Augmentation of Laboratory Facilities in Various Departments:

Applied Chemistry : BOD Monitor Hach, COD Monitor Hach, Gas Chromatograph

Mechanical Engineering : Computerized Maruti Zen (Petrol) Engine Test Rig

Polymer Engineering : Fused Deposition Modelling System, Stratasys Dynamic Mechanical Analyzer, TA, Hydrogen Fuel Stack System.

Remote Sensing : Differential GPS, Map Production and Reprographic Lab – Plotter

Architecture : Plotter

Space Engineering and Rocketry. Sigma Mixer

Computer Science: Computers and Work stations

Applied Physics : Magnetron Sputter Coating System, Nitriding unit Plasma Enhanced Chemical Vapour Deposition System, Turbo pump, Nd:YAG Laser, Current Balance, Couple Oscillator, Mechanical Wave Driver, Fresnel's Equation Verification setup, Mechanical and Electrical Equivalent of Heat, Thermal Radiation Setup, Atomic Spectra of Gases.

Electronics and Communication Engineering : Microwave Signal Generator Laboratory Accessories, Spectrum Analyzer, Tunable Laser Source, Optical Spectrum Analyzer, Optical Time Domain Reflectometer, Accessories, QAM System, GSM Test System, Antenna Measurement Set-up, Global Positioning System, Module Mobile Telephone Simulation System, Satellite Communication System Module, CDMA, DSS System Module, Microprocessor Hardware Training Module.

Production Engineering : Plasma Welding and Cutting Unit, Mig Mag Welding machine with Digital Display, Dynamometer with Charge Amplifier Kistler, 5 Axis CNC Machining Centre

Central CAD Laboratory : Workstation, Plotter

Learning Resources:

Under the procurement of Learning Resources category of TEQIP, BIT has established state of the art CAD facilities in various areas. Today there are two Central CAD facilities, available to all the Departments.

CENTRAL CAD LABORATORY : The softwares for CAD Laboratory procured under TEQIP are : MATLAB with various toolboxes ● Autodesk: Civil and Mechanical Solution Sets ● AUROCAD for Architect ● Ansys: Multiphysics Version 9.0 ● Fluent, with Turbo G ● Polyflow ● Catia, V5 ● NX Manufacturing Bundle ● Mold Wizard ● Knowledge automation Studio Bundle ● Extended Lingo ● Adams University FEA Bundle Software. The Central CAD laboratory also has Molecular Modelling software TRIPOS ● Accelerys software-MS Visualizer, MS Synthia, M S Blends, Amorphous Cell, Discovery, Compass, DPC, Mesodyn and CASTEP ● Chemoffice Ultra 2005.

AUGMENTATION OF DepartmentAL CAD FACILITIES:

Applied Chemistry : Chem Office Ultra

Electronics & Communication Engineering: Network & Comm. Simulation, Cadence University Program, System View, FIDILITY Software, MDSPICE, Beam Pro, NIEL VIS/PCI-6251/DSP & PSIM 6.0.

Bio Technology : GCG, DS GeneStatic, Insight-II LS, Biopolymer, Homology

Department of Computer Science : 3D StudioMax 2008, Flash, IBM Rational University Relationship Program, Red Hat Linux Enterprises 3.0/4.0 Basic edition, MATLAB 7.0, Turboc++, MSDN, Oracle, SAAZ IT Infrastructure Management Suit, Crystal Report.

Electrical and Electronics Engineering : BWD New version Software, DSP Starter Kit

Department of Polymer Engineering: Paulson training module, Software for RIGAKU MINIFLEX

E Learning Cell : Language Laboratory software for English, French, Spanish and German

Department of Remote Sensing : IRS P5 Stereo Orthokit, Envi +Idl Software

Department of Mechanical Engineering : Catia V5-5691 ED2, ITI Simulation - X Software

Study on Utilization of Institutional Resources Created Under Teqip in Programme Institutions:

As the programme was coming to an end in March 2009, a report was prepared on the utilization of the vast number of resources established. NPIU conducted the study to determine the level and extent of utilization of resources created under the programme with a view to maximize usage and reduce wastage. It would enable the assessment of to assess the benefits of resources created to the stakeholders and recommend strategies for sustaining the resources created. An Internal committee was constituted by Vice Chancellor for preparation of the report for BIT Mesra. The members were: Dr P.C.Joshi, Dr D. Sasmal and Dr G.M.Panpalia. SPFU would conduct assessment later.

Objectives of the study:

1. To evaluate the commissioning and operation of equipments purchased under the programme
2. To determine the status & extent of utilization of equipment
3. To assess the availability of consumables, spares, service and operation manuals
4. To assess the availability and training imparted to technical support staff/faculty for operation and maintenance of the equipment
5. To assess utilization of Books and learning resources
6. To suggest comprehensive strategy and action plan for enhancing utilization of resources procured and reduce wastage.

Infrastructure Development:

Utilizing the funds for Civil Works and Furniture the following Infrastructure has been developed:

1. Construction of Building to house Instrumentation Facility
2. 10 Seminar Halls/Class rooms are equipped with Audiovisual aids
3. Bose Acoustics System, Chairs for Golden Jubilee Auditorium
4. Refurbishment of three Seminar Halls
5. Refurbishment of various Laboratories: Cadence Laboratory, Central Instrumentation Facility etc.
6. Air conditioning of CAD Laboratories and Central Instrumentation Facility.

Augmentation of Library Facility:

1. e- journal facility augmented after procurement of Science Direct [Engineering, Chemical Engineering, Energy, Material Science, Computational science]
2. D Space, for digital archiving: Institutional Repositories, Learning object Repositories, e-Thesis, Electronic records Management, Digital preservation etc.
3. Web based OPAC: all the library information can be accessed through LAN.
4. Computers, Furniture, pass book printers, etc.

3M Electro Magnetic Detection Systems : The Central Library has procured 3 M Electro Magnetic Detection Systems. The 3M Electro magnetic library security solutions consists of the following components:

1. Tattle Tapes/Magnetic strips
2. 3M security Detection Systems/Security gates
3. Books Check Systems

Symbol MC1000 mobile computer (ID Laser Scanner) : In one simple package combining data-entry bar code scanning capabilities, the rugged MC1000 mobile computer can capture library stock verification data more efficiently and accurately.

Campus Wide Networking:

Birla Institute of Technology, Mesra is currently providing a fast reliable and always-on internet connection in the campus. Two ISPs (Reliance & BSNL) are providing services for the campus network through optical fibers and Wi-Fi connectivity. An extra 6Mbps leased line from Reliance has been added in December 2008 to increase the speed of the internet access. The total bandwidth at present is 14Mbps (Reliance (12 Mbps) & BSNL (2 Mbps)).

The internet can be accessed from almost all the computers on the network and available 24 x 7 to the students and members of the faculty. Considering the security risks that come with the internet and a local area network, all the computers on the network are constantly monitored by an industry leading Intrusion Detection and Prevention system (IDP), namely Cyberoam. It provides services such as bandwidth merging, automatic content based packet filtering, antivirus protection, customized bandwidth allocation etc. The installation of five wireless access points at various locations in the institute has added the internet facilities for mobile users of the institute.

For network maintenance and management, a team consisting of three personnel has been outsourced to monitor the networking in the campus. For maintenance of manageable switches in the student hostels, an annual maintenance contract has been given to provide smooth network services in the hostels.

To ensure comprehensive network protection, 2500 licenses of Symantec antivirus have been procured and deployed in every system (students' nodes as well as institute's nodes) which comes on networking, and it is being used to provide security against threats e.g. viruses, worms, Trojans etc.

Earlier, the internet facility was getting hampered because of the failure in the network components at the hostel, mainly, because of high voltage fluctuations across the switches. Moreover, the student hostels were lacking a proper earthing facility, which were adding to the problems caused. During 2008-09, earthing has been built in all the student hostels to solve the problem for ever.

To strengthen the network facility, apart from the existing one, electrical network related wiring has been carried out in some of the Departments like Mechanical, Architecture, Civil and Applied Mechanics.

Moreover, internet connection through optical fiber layout has been made in Pharmacy, Applied Mathematics, Rocketry and Production Departments.

A dedicated team of network administration, comprising of the following eight members is constantly monitoring the network system and is responsible for the internet running at all times:

Faculty Members of the Network Committee:

1. Dr. S.K. Ghorai : Chairman, ECE Dept.
2. Mr. N.K. Nag : Member Secretary, CAD Lab.

3. Prof. A. Mustafa : Member, Comp. Sc Dept.
4. Prof. Vishal H. Shah : Member, ECE Dept.
5. Prof. S. S. Tripathi : Member, ECE Dept.
6. Prof. S.G. Kadwane : Member, EEE Dept.

List of procurement during 2008-09 for Campus and hostel networking:

1. Symantec Antivirus
2. Network management appliance
3. Cyberoam
 - (a) Cyberoam Support :
 - (b) IDP:
 - (c) Web Content Filter:
 - (d) Anti-spam filter:
4. CON – SMBS, CISCO Switches
5. Network components, Media converter, Patch cord, Ethernet, Routing Switches, wiring materials, ADSL Modem, Patch panel and media converter etc.
6. Earthing materials, MCB Switches
7. Manageable switches for hostel

Edusat Cell and Videoconferencing:

The Cell looks after the EDUSAT related activities. The two hubs are at Amrita Vishwa Vidyapeetham, Coimbatore and Space Application Centre, Ahmedabad. In the year 2007-08 the following courses were made available to the students of BIT: (i) GIS, GPS, by Indian Institute of Remote Sensing, Dehradun, (ii) Courses on Applied Mechanics, Image Processing, Applied Mathematics by Amrita Vishwa Vidyapeetham, Coimbatore, (iii) Live telecast of lectures of regular semester programme (meant both for UG and PG) conducted by CDEEP, IIT, The EDUSAT Cell proposes in co-ordination with Jharkhand Space Application Centre to impart Engineering education to other Engineering Degree colleges and Polytechnics of Jharkhand state. The expert lecture by BIT faculty or invited subject specialists will be conducted and transmitted regularly. The facilities would also be utilized for Distance Education, and continuing education.

The Cell is also responsible for providing the Video-conferencing facility. The video-conferencing facility will primarily be used to conduct lectures simultaneously in all the Extension Centres - NOIDA, Patna, Deoghar, Kolkata, and Jaipur extension as well as in Network Partner Institutes. The objective of this set-up is to make expert delegates' lectures available to other extension centers. The facility is used for sharing of expert lectures and specialized training sessions at any one site across all the Extension Centres.

E-Learning Cell:

An e-learning cell, coordinates preparation of content of e-lectures. The cell has representatives from all Departments. The Cell is furnished with computer facility and software for preparation of e-lectures. The course material is being prepared to facilitate our students, at main center and all extension centers, study the course

material at their convenience, facilitate faculty to take with audiovisual aids. Classes are being taken for 1st and 2nd Semester in Lecture Halls with audiovisual facilities. The e-lecture are made available via Intranet of the campus. E-lecture of various subjects have been prepared during this academic year. Work has been initiated to prepare course materials for BBA and BCA programmes.

BIT Mesra was invited by IIT Kharagpur to become collaborator in MHRD, GOI, project "Developing suitable pedagogical methods for various classes, Intellectual calibers and research in e-learning", under the National Mission Project on Education through Information and communication Technology (ICT)". MHRD has entrusted Education Technology Centre, IIT Kharagpur with the responsibility of anchoring the project. IIT Kharagpur has involved seven IITs, a number of NITs and some other engineering colleges. Dr Shraddha Shivani is nominated by Vice Chancellor to be the Institute Level Coordinator for this Pedagogic Research Project.

The Cell also coordinates the activities of the Language Laboratory. The facility includes self learning modules of for English, French, German & Spanish languages through audio CD.

Academic Reforms:

During TEQIP period several Academic Reforms were introduced. Academic Reform and Examination Reform committees, were formed. Some of the Reforms include: Evaluation methodology of Theory courses, Introduction of External Examiner for Laboratory Examinations, display of Mid Semester papers to students, Introduction of Term Papers in all Courses, Online Students appraisal of the teachers, Online Institute appraisal by Faculty and Students, On line examination, Introduction of foreign language classes, Introduction of Industrial visits etc. Following practices of BIT was recognized at National level by NPIU:

1. Industry Institute academic programmes.
2. Intellectual property management [IPM] Cell
3. Industry Institute collaborative research
4. Mentoring of students by alumni
5. Online Exam in different subjects

Foreign Language Classes: French, German and Spanish Classes:

During Monsoon 2008 and Spring 2009 Semesters French and German language classes were introduced. The courses were in great demand amongst UG as well as PG students. So far following number of students have enrolled : French - 164, German – 79.

Industrial Visits:

Industrial visit was made mandatory for all courses of the Institute. Following are some of the visits conducted in 08-09:

1. VI Semester, Electrical and Electronics Deptt, visited "Garden Reach Shipbuilders & Engineers (GRSE)" on 9th January 2009.
2. IVth Semester EEE Department visited "TATA Power", Jamsedpur on 13th January'09 .
3. VIth Semester EEE Department visited "TATA STEEL, Jamsedpur" on 13th January'09.
4. Final year students of Management Department visited "BOKARO STEEL Plant" on 15th January '09.
5. VIth semester students of Electrical Engg., visited "Patratu Thermal Power plant" on 30th August.09.

6. Students of Mechanical Engg. Deptt. visit the Hydro Electricity Project, Sikidari on 29th Sept'08.
7. All Students of Polymer Engg visited Haldia Petrochemicals on May to June 2008.
8. All Students of Polymer Engg visited Plast India in Delhi on 4th to 9th February'09.

Tribal Development Plan:

Apart from ongoing activities like Remedial classes, Book bank, following activities have been taken up in this academic year:

1. A Survey has been conducted amongst SC, ST students to find out their needs. The activity plan for the year 2008-09 has been made on the basis of this survey. The main emphasis would be given on Training in Software, Soft Skill, and Remedial courses.
2. A Language Laboratory with self-learning modules of English, French, German, and Spanish has been set up for the students. It is located inside the Institute Central Library.
3. Language classes of French & German started
4. Skill Development Programme: Workshop on Solid Modeling with PRO/E for the students on 4th to 8th August '08 organized with Mr. Kaushik Kumar and Mr. Subhash Lahane of Department of Polymer Engineering as the resource persons. The programme included various tools for creating the solid and various tools for alteration and modification of the same. Various assignments for each day and a project was given and discussed. Around 26 students attended the workshop.
 - Motivational programmes for GRE, TOEEF etc by PET Cell
 - Industrial visits for students
 - Tracer Cell and Mentoring Programme

Pre-Placement Examination Training (PET) Cell:

PET cell was formed in 2007 to encourage and guide the students locate and compete for Engineering and administrative jobs in the governments. The cell also helps the students looking for higher education in premiere Indian and foreign universities. Faculty incharge of the Cell are Dr A.K.Roy, who guides students for preparation for admissions to foreign Universities, Dr Vibha Rani Gupta and Dr R.K.Lal who guide students for GATE Public sector Examinaitons, and Dr Shraddha Shivani, guides students regarding the collaborative programmes of BIT with foreign Universities like University of Leeds, University of New Brunswick, University of Hartford, etc.,. To bridge the gap between the students and the members of the PET Cell two student representatives from prefinal and final years were selected.

Members met regularly and the last meeting was held on 6.2.09, to discuss the function of the PET Cell, which are as follows:

1. Motivate students to qualify GATE in VI th semester,
2. Motivate and guide especially ST, SC students for Public Sector Undertaking as there are reservations for them. Employment was forwarded to students by e-Mail, as well as by PET Cell Notice board.
3. Record of the successful candidates with their scores in GATE and CAT should be collected
4. Students representative should be selected from each Department.
5. Database of the students with their e-Mail ID should be prepared.

6. Inform students of the Collaborative programmes of BIT with foreign Universities
7. Make arrangement for preparing the students for IES, GATE, GRE, GMAT, CAT, TOEFL and IELTS examinations.
8. Maintaining record of Successful candidates of GATE?CAT and going for higher studies.

Dr. Sunrit Mullick, Regional Officer and student Advisor at United States Educational Foundation in India in Kolkata, delivered a lecture on the "Application procedure for admission & assistantship in US Universities", for the students of V, VI, VII and VIIIth semester, on February 10th 2009.

Entrepreneur Development Cell:

An Entrepreneurship Development Cell (EDC) has been established in the Institute. The EDC was launched on 29th September 2008 with a two day, 29th to 30th September 2008 Entrepreneurship Awareness Workshop for the students of the Institute. Mr Chandermohan, former member NSTEDB, Deptt of Science & Technology, Govt. of India was the keynote speaker at the workshop. The aim of EDC is to organize activities to build awareness and favorable attitude among students regarding entrepreneurship as a career option. The Chairman of the Cell is Prof B.M. Karan, Mentor and Coordinators are Dr Vinay Sharma, Dr. R.N.Gupta, Mr. Vishal Shah, and Dr Shraddha Shivani. Mr. Vishal .H. Shah, Lecturer ECE, attended a meeting with Dr. B.V. Phani at IIT,Kanpur on 28th March'09. to study the activities of SIDBI (incubation Centre) and IIT Kanpur. Mr. Vishal H. Shah also undertook a Faculty Development Programme on "Entrepreneurship", from 18th to 30th December, organized by Entrepreneurship Development Institute of India, Ahmedabad. The venue for the training was Lakshmi Narayan College of Technology, Indore.

During this Academic year Entrepreneur Development Cell at BIT was continuously engaged in motivating the students to take up the projects and help them out in all possible manners to come up with an enterprise. It is noted with pleasure that few of the students of final year have already started their own enterprise, or they are working in the direction of becoming an entrepreneur.

1. Pawan Gupta, ECE 2008, batch has started his own venture with the name "Spirit Continues" and is towards the path of success.
2. Mr. Ankit Jain, IT 2008 batch is exploring his ideas with the like minded people at IIT Chennai under the banner "Uniphore Software Systems".
3. Mr. Amit Choudhury, CSE 2008 batch is working as Program Manager in Valyoo Technologies Pvt. Limited, and is aimed to bring his ideas of Bluetooth technology into reality. Once tested, he shall be starting his own company.

In continuation of this, EDC at BIT has been looking for all possible support which it can give it to their budding entrepreneur.

The Cell in coordination with BIT Science and Technology Entrepreneurs Park (STEP), coordinated the 2 day visit by Dr. A.S.Rao, from Department of Scientific and Industrial Research (DSIR). DSIR has invited BIT to be partner in Techno-entrepreneur Promotion Programme, TePP. to promote entrepreneurship as well as screen project proposals for the State of Jharkhand and Bihar.

Faculty and Staff Development:

Faculty and Staff Development is an important component of TEQIP. Training need analysis was done every academic year, for all the Faculty and Staff of the Institute as per NPIU guidance. Training Plan for the year was

prepared on the basis of the analysis. As discussed in the 9th JRM, in Delhi emphasis was on Faculty and Staff Development.

In the present academic year one of the major achievements of the TEQIP has been introduction of Pedagogy Training for Faculty members by newly constituted Engineering Education Cell. .

A Study on Assessment of Faculty Development/Training and options to scale-up for Future:

The aim of the National level study by NPIU was to assess the gains in faculty development/training during TEQIP project to identify the reasons for deficiencies noticed in meeting the desired objectives for faculty development, to identify best practices for faculty development and training in the project, and to recommend actions for scaling-up faculty development and training and making the process more effective in future.

Birla Institute of Technology was selected as one of the 35 representative Programme Institutions, including 5 centrally funded institutions where the study was conducted. Separate Response sheets were filled – by Faculty who underwent some Training, Faculty who did not under go any training/development., fresh faculty (two or less years of joining), Heads of Department, Students [UG and PG and Doctoral]. Various Documents CIP, Training need Analysis, Annual Staff Development plans 2005 onwards, Tally Sheets - summary of responses of students and faculty to the questionnaires during performance audits, Output and Out come Indicators were the basis of Assessment.

NPIU conducted an Assessment of Faculty Development at BIT Mesra, by Dr D.K.Subramaniam, Retd. Professor IISc Banglaore, on 17th & 18th Nov'08. Presentation was made by TEQIP coordinator and Dean Faculty Development to explain the procedure for Training Need Analysis, and preparation of Report on Utilization of Training carried out at BIT. Focussed Group meetings were arranged. Dr Subramaniam emphasized on Training Need Analysis and Survey of Utilization of Training. He held special meeting with Heads of Department of Computer Science and Engineering and Department of Information Technology.

Trainings sponsored by TEQIP in 2008-2009:

Sl. No.	Area of Training	No of Faculty / Staff
1.	Seminar on" Environmental Issues on Geotechnical and Mineral Industry" from 4.04.08 to 5.04.08 at BIT, Sindri	1
2.	Visit of some Power Electronics based companies & visit Power Electronics & Drives lab of Indian Institute of Science (IISC) Banglore from 20.04.08 to 2.05.08 at IISC, Banglore	2
3.	2008 Indo-US Engineering Faculty Leadership Institute-Effective teaching, cooperative learning, Effective faculty development, Outcome based education, Quality & Accreditation from 26.05.08 to 28.05.08 by Indo-US Engineering Faculty Leadership Institute	2
4.	2008 Indo-US Engineering Faculty Leadership Institute-Preparation for India's embership in Washington Accord from 29.05.08 to 30.05.08 Indo-US Engineering Faculty Leadership Institute	1
5.	Workshop on Effective Teaching from 30.07.08 to 2.08.08 conducted by BIT, Mesra	45
6.	Training Programme on Ansys from 16.07.08 to 20.07.08 by CMERI, Durgapur, organized by BIT, Mesra	22

Sl. No.	Area of Training	No of Faculty / Staff
7.	Workshop on Effective Teaching from 5.08.08 to 9.08.08 conducted by BIT, Mesra	47
8.	Workshop on Effective Teaching from 11.08.08 to 14.08.08 by BIT, Mesra	40
9.	Pedagogical Training Programme from 10.08.08 to 14.08.08 conducted by BIT, Sindri	02
10.	Workshop on Research and Development in Engineering Education from 18.08.08 to 19.08.08 at BIT, Mesra	70
11.	Workshop on CFD & Fluent from 20.08.08 to 28.08.08 at BIT, Mesra	10
12.	Workshop on Effective Teaching from 25.08.08 to 29.08.08 at BIT, Mesra	50
13.	Workshop on Micromachining & Nanofabrication on 29.08.08 to 30.08.08 by Jadavpur University, under Centre of Advance Study Programme UGC, New Delhi	01
14.	Short term course on Hydrogen Fuel Cell from 15.09.08 to 19.09.08 at IIT, Guwahati	01
15.	Research Visit regarding Direct Contact Membrane Distillation (DCMD) Project from 9.09.08 to 11.09.08 at BIT, Jaipur	01
16.	Lecture series on 'Science of Climate Change for Engineers, Scientists & policy makers by Dr. Gordon Pickett, organized by BIT, Mesra from 26.09.08 to 29.09.08	15
17.	Training on Injection Moulding Machine –Operation & Maintenance Larsen & Toubro Limited, Kolkata, from 24.09.08 to 25.09.08	01
18.	Workshop on Effective Teaching from 16.09.08 to 20.09.08 at BIT, Mesra	40
19.	Research Visit to solar energy laboratory, Ocean energy laboratory of IIT, Madras from and Energy centre of Anna University from 5.09.08 to 8.09.08	01
20.	Workshop on Nano & Micro Mechanical Characterization of Coating & thin film in School of Material Science & Engineering, Bengal Engg. & Science University, Shivpur on 11.11.08	02
21.	National Workshop on Power Electronics from 07.11.08 to 8.11.08 in NIT, Trichy	02
22.	Seminar on 2 nd Bangalore Nano Exhibition, Conference, Partnering from 11.12.08 to 13.12.08 at Nano, Bangalore	02
23.	Faculty development programme in Entrepreneurship from 19.12.08 to 30.12.08 Organized by Entrepreneurship development Institution of India, at Indore	01
24.	Short term course on Futuristic Nanocomposite from 08.12.08 to 12.12.08 at IIT, Kanpur	01
25.	7 th International Exhibition & Conference (Plast India- '2009) from 06.02.09 to 07.02.09 at Plast India Foundation, New Delhi	03
26.	Seminar on Polymer Processing Society-25 from 01.03.09 to 05.03.09 at Polymer Processing Society, Goa India	01
27.	Workshop on Computational Materials Science from 06.03.09 to 08.03.09 at Indian Institute of Science, Bangalore	01
28.	Short term course on Design & Development of Advanced Materials on 23.03.09 to 27.03.09 by Dr. M.K. Banerjee organized by BIT, Mesra	21

Following foreign training was supported by TEQIP for the present academic year:

1. Dr. S. Medhekar (Associate Professor), Department of Applied Physics visited Redendo Optics, LA, USA and University of Hartford, CT, USA during 25th dec. 2007-15th Jan. 2008 to carry out collaborative experimentation on a novel "All-Optical Passive Transistor" proposed by Dr. Medhekar with his Ph. D. student.
2. Dr. S. Madhekar went to University of Hartford, USA for Collaborative Research work to demonstrate the proof-of-concept (POC) feasibility of All-Optical Passive Transistor(AOPT) from 7.07.08 to 12.08.08

Seminar/Workshop organized by TEQIP:

1. Workshop on FINITE ELEMENT ANALYSIS with ANSYS' coordinated by BIT, Mesra, from 16th to 20th July'08. Dr. Jhankar Basu, from CMERI Durgapur was the resource person. Workshop includes the introduction to Finite elements methods, Structural & Thermal Analysis through ANSYS and using link, beam, solid, contact element. Around 25 faculties attended the workshop.
2. Workshop on "Design and development of Advanced Materials" by Dr. M.K. Banerjee, on 23rd to 27th March'09.
3. "Effective Teaching". Five Programmes were held on 30.07.08 to 2.08.08, 5.08.08 to 9.08.08, 11.08.08 to 14.08.08, and 25.08.08 to 29.08.08.
4. Workshop on "Research and Development", by Dr R. Natarajan, 18th and 19th August'2008.
5. Workshop on CFD & Fluent from 20.08.08 to 28.08.08

Engineering Education Cell for Pedagogy Training:

An Engineering Education Cell has been established in the institute. The Cell was launched on 18th August'08 with a two-day workshop on R&D in Engineering education conducted by Dr R Natrajan, former Chairman AICTE, and former Director IIT Chennai. On 18th August '08, Prof. R. Natarajan, deliberated on:

1. Nature & Scope of R & D in Engg. Education
2. Innovation, Citation Index and Impact Factor
3. On 19th August '08, Prof. K. V. Prahlada Rao, Executive Director, Board of IT Education Standards took sessions on :
4. Writing proposals for sponsored research
5. Industry Academic Interaction for collaboration with IT industries

The objective of the Cell is to conduct induction training for new Faculty and continuous pedagogy training for faculty members of the main Campus as well as Extension Centres of the Institute. Prof. Gopal Pathak had attended The Workshop on "Effective Teaching Cooperative learning, Effective faculty development, Outcome based education, Quality & Accreditation" from 26.05.08 to 28.05.08, and "Preparation for India's Membership in Washington Accord" from 29.05.08 to 30.05.08, organised for the first time in India by Indo-US Collaboration for Engineering Education (IUCEE), in the campus of Infosys, Mysore. This workshop provided tools and strategies for college professors to make their classes more effective. The workshop has been given on campuses throughout the United States and in Europe, Asia, Africa, South America, Australia, and the Middle East. It has been exceptionally well received by the participants, despite the skepticism many engineering and science professors feel toward teaching workshops. Inspired by these workshop the Cell conducted 5 consecutive 5 day pedagogy training programmes. Dr Bani Bhattacharya and Prof. A.K.Ray, from Education Technology Centre,

IIT Kharagpur, were invited as resource persons in the first programme in the series which started on 30.7.08. This was attended by Head of the Departments, Deans and senior Faculty members. The resource persons for the subsequent programmes were Dr A.K.Chatterjee, Prof Gopal Pathak, Dr. Ajay Khare, Dr Utpal Baul, Dr Usha Jha, Dr Shraddha Shivani, Mr B.B.Pant. Dr Vinay Sharma. The programmes were held on 30.07.08 to 2.08.08, 5.08.08 to 9.08.08, 11.08.08 to 14.08.08, and 25.08.08 to 29.08.08. The topics covered were : Planning a course, Learning and Teaching styles, Active Lecturing, Active Learning, Cooperative Learning, Inductive Teaching and Learning, Project based Learning, Assessment and Evaluation, Dealing with students problems, Washington Accord and ABET Communicating more effectively, Research and Development – Citation Index and Impact factor, Copyright and Intellectual Property Rights.

Apart from 250 faculty members of BIT Mesra, the pedagogy training programmes were also attended by faculty members of BIT Extension Centres :

BIT, Extension Centre, Kolkata - Prof. Subho Chaudhari, Prof. Ambar Dutta, Ms. Sraboni Dutta, Ms. Siba Mitra

BIT, Extension Centre, NOIDA - Mr. C.S. Suryanarayan, Mr. Rayees Ahmad, Ms. Harpreet Charanjit, Ms. Preeti Bajaj.

BIT, Extension Centre, Jaipur - Mr. P.K.Sharma, Mr. Bimalendu Pathak

BIT, Patna - Mr. Prashant Kumar, Mrs. Subha Sinha

BIT, Allahabad - Dr. A.K.Mahanty and Prof. Ratnesh Mishra

Invitation was also extended to various TEQIP Instittues of the region – Jharkhand and West Bengal:

One faculty from Asansol Engg. College,

One faculty from Govt. College of Engg. & Textile Technology Serampur,

Three faculty from Kalyani Govt. Engineering College, West Bengal

Six faculty from BIT Sindri

Two faculty from Government Polytechnic Dumka

Five faculty from Government Polytechnic Ranchi

The details of the programme and the course material was also sent to all Extension Centres, in India and Overseas and encouraged to organize similar programmes there.

Examining the follow up activities, IUCEE gave Leadership awards to few faculties for the follow-up activities in their region. Prof. Gopal Pathak, B.I.T, Mesra, Ranchi was among the eight persons from all over India, selected for this award. This award Ceremony was held on 1st July 2009 at Infosys Centre, Mysore.

Intensive Interaction with Industry:

Intensive interaction with Industry is mandatory for development of any Technical Institution. At BIT it is an ongoing activity. BIT has MoU with various Industries like SAIL, MECON, TATA STEEL, Indian Railways, CIPLA, Amiantit Oman etc in areas of teaching and research. Following are collaborative projects initiated during the project:

Redendo Optics, LA, USA on a novel "All-optical Passive Transistor"

United Technology Research Centre on "Desalination by Direct Contact Membrane Distillation"

Tracer Cell:

Tracers Cell has been constituted to keep up-to-date employment record of all pass-out students of the institute to utilize it for the benefits of both institution and industry. The cell is coordinated by Prof Utpal Baul, Professor, Deptt of Management and Dr R.N.Gupta, Assoc Professor, Deptt of Pharmaceutical Sciences. A database has been created, of past and present students of the institute who have registered themselves as members through the institute website. The benefits of the cell are: Employment Generation of students, Industry –Institution Partnership, Development of Technology, Course content upgradation. All past and present students of the Institute register themselves online through our official website. The Cell acts as a link between BIT and alumni by providing them a common platform for mutual value addition in knowledge base through reciprocation and interaction. The project will objectively facilitate reaching out to the technocrats, managers, academicians and experts in various fields who are keen to share their knowledge and experience and would like to contribute towards the development of thoughts and concepts in various areas of industry / academic interest.

In the academic year 2008-09, efforts were made to promote the aims and objectives of Tracer Study Cell and to get registration of all the pass-out students of BIT. A meeting of the alumni amongst the faculty members of BIT was arranged on February, 2009, to discuss activities of the Cell. The meeting was presided over by Prof B.M.Karan, President, BIT Alumni Association (BITOSA). Class representatives of out-going batch of both UG and PG of institute were inducted in cell to get registration of all the outgoing students. Once again in May'09, a meeting with class representative was held and all the passing out students were suggested to enroll themselves with TRACR STUDY CELL and to flow the message. About 83000 ex BIT students were enrolled till date. The Write –up about the Cell and a format for registration by pass–out students of the Institute was uploaded in the BIT website . All Departments can view the report generated by the tracer cell by accessing the URL:<https://172.16.32.250/TracerCell>. The Cell, apart from accessing the employment status and market acceptability of the pass out students, acts as a link between an academic institution and its alumni by providing them a common platform for mutual value addition in the knowledge based through the reciprocation and interaction. The Cell assisted pass-out students in job-rotation and also training to students.

Departmental Brochures: Brochures of all Departments were prepared to document facilities and research activities Department, which can be used for networking with Industries and other Institutes. Facility was also created to get visiting cards of the faculty members of all Departments to be printed. Some faculty members availed the facility.

Improvements in Institutional governance and management and administrative practices

Establishment of Four Funds:

Following funds have been established for Institutional Development and Quality Improvement:

- | | |
|-----------------------------|---------------|
| a. Corpus fund: | Rs 30.00 lacs |
| b. Staff Development funds: | Rs 5.00 lacs |
| c. Maintenance funds: | Rs 15.00 lacs |
| d. Depreciation funds: | Rs 10.00 lacs |

Integrated Institute Information System:

The Information cell of the institute, established in 2006, has developed an integrated information system for academic institutions. This system caters to the information requirements of all academic and administrative

Departments as well as for the administrative offices of the institute. This has been made possible through computerization of various academic and administrative activities of the institute.

Besides facilitating smooth information sharing and academic interaction among faculty members and between teachers and students this system will lead to improved governance by ensuring efficient and transparent decision making and planning at all levels in the organization. The Coordinators of the Information Cell are Dr Shraddha Shivani, Department of Management and Mr. A.Mustafi, Department of Computer Science.

The modules developed during the last one year are as given below:

A. Office of the Dean Academic Coordination and Semester Office

1. Online registration of students, generation of Roll lists etc. Presently all UG and PG courses registration is on line.
2. Uploading attendance of all the students registered online.
3. Computerized records of Academic and personal profile of students

B. Examination Office

1. Online examination system for Mid-Semester Examination - A team was constituted under the leadership of Dean Examinations to develop and deploy a module for conducting On line mid semester examinations for BE students. Exams were conducted online for 25 subjects in two consecutive semesters. Approximately 2100 students appeared in these exams in each Spring 2009 and 500 students in Monsoon 2008 semester.
2. Development of software for the Examination Office is in progress.

C. Academic Departments

1. Academic and personal profile of all faculty members of the Departments including publications, sponsored projects, conferences, QIPs attended, etc..
2. Infrastructure module to store information and retrieve reports on laboratories, workshops and other infrastructure facilities available in the Departments.
3. Facilitates the uploading of tutorial sheets, assignments, lab manuals, teaching material etc by faculty members, so that these can be accessed by the students through the intranet online.

D. Registrar Office

1. Online generation of provisional and other certificates of students

E. Dean Doctoral Research

A module has been developed to computerize record keeping of this office. The module facilitates efficient storage and retrieval of information pertaining to profile of doctoral students and monitoring of their research progress etc.

F. Faculty and Institute Appraisal

1. A module was developed for implementing online Faculty appraisal by students. The students submit their appraisal anonymously for all teachers taking their courses. Each teacher can access his/her own appraisal report through his own login. The HOD has access to the Appraisal reports of all faculty members in his Department through the Departmental login on the system This appraisal was conducted twice from

24-28th September'08 and from 10th Nov – 28th Nov during the Monsoon '08 semester. During the Sp/09 semester this appraisal was conducted from 25th March – 31 March'09.

2. Institute appraisal by faculty and students, conducted online at the end of each Semester to improve stakeholders participation in Governance. The faculty members and students submitted their appraisal of institute facilities and ambience on line and anonymously. The students submitted this appraisal along with the faculty appraisal during second round of faculty appraisal conducted in Mo/08 semester .The faculty members submitted this appraisal from 10th Nov – 28th Nov/08.

Grievance Cell:

Quarter Allotment Committee:

A module was developed for the computerised allotment of Staff quarters and maintenance of records of quarter occupancy and pending applications.

Trainings Imparted:

1. A team from the Information Cell conducted a weeklong training programme on 'Deployment of the Integrated Institute Information Center', at BIT Extension Centre, NOIDA. Sytems administrators and faculty members from BIT Extension Centre NOIDA, Jaipur and Allahabad attended the training programme.
2. Under Networking activities Installation & Demonstration of Integrated Institute Information Management System by a team of Information cell, BIT Mesra went to BIT,Sindri in November'07.

Networking Of Institutions For Quality Enhancement And Resource Sharing

BIT Mesra is the Lead Institute in Jharkhand, and the formally network partners are Birsa Institute of Technology, Sindri, Government Polytechnic, Dumka and Government Polytechnic, Ranchi. Video conferencing Facility is being procured, then all the Network Partners will be connected. Following are the activities in the Academic year 2008-2009.

Activities Flowing out of BIT Mesra

1. Three Faculty from Govt. Polytechnic Ranchi have been admitted in ME and M.Tech Programmes.
2. Training on CAD/CAM, CMC for students of Polytechnics, by Production Engineering Dept, BIT, Mesra from Jan-June'08
3. Three people from BIT, Mesra went to BIT, Sindri for Internal Audit.
4. Two participants from Govt. Polytechnic Dumka, three from Polytechnic Ranchi and six from BIT, Sindri attended the Workshop on Effective Teaching from 30th July to 2nd August'08 at BIT, Mesra.
5. Training on Rational Suite of Products from 23rd to 24th August '08 at BIT, Mesra.
6. Prof. Gopal Pathak as Resouorce person on topic Accreditation & Accountability during Pedagogy Training on 11th August'08
7. Dr. M.Chakraborty and Prof S. Sengupta as advisor regarding BIT Sindri Campus development & Planning on 6th &7th of August'08
8. Two participants from Govt. Polytechnic Ranchi attended the Workshop on Effective Teaching from 16th to 20th September'08.
9. Four participants attended the training on Genetic Algorithms conducted by Computer Science Dept BIT,Mesra on 13th &14th September'08.

10. Three participants from BIT, Sindri attended the training in Beam pro Software (Optical commn.) and Photonic Crystal Fiber organized by BIT, Mesra on 24th to 25th Oct'08.
11. Six participants from Govt. Polytechnic Ranchi attended the training on Material Testing from 8th to 11th Dec'08. in Civil Engineering Department.
12. Six participants from BIT, Sindri attended the training programme on Multi Sim on 1st & 2nd Dec'08

Activities Flowing in From Network Institutes:

1. A team of four people from BIT Sindri visited BIT Mesra for Procurement Audit on 25th & 26th May'08
2. Seminar on "Environmental Issues on Geotechnical and Mineral Industry" on 4th & 5th April'08 at BIT, Sindri.
3. Six participants attended Training programme on Hydraulics Machine from 23.06.08 to 28.06.08 organized by Govt. Polytechnic, Ranchi
4. Professor S.P Singh from BIT, Sindri taken Classes in Pharmacy (Pharma Engg.-II), Polymer (Chemical Engg.-II) & Biotech (Chemical Engg.-III) on 18th to 20th August'08
5. NBA Mock exercise by Prof. G.Kumar at BIT, Mesra on 6.08.08.
6. Professor S.P.Singh from BIT, Sindri has taken 9 classes for Polymer, Pharmacy & Biotech Students from 18th to 21st Oct'08.
7. Prof. Om Prakash invited to deliver lectures on "Process Control & Instrumentation" at BIT, Mesra for (BE)Biotech & Polymer students on 19th - 20th and 23rd - 24th Jan'09 and 13th-14th Feb'09, and 26th-29th March'09..

Joint Activities:

1. Networking visit by faculties of BIT Sindri, Govt. Polytechnic Ranchi & Dumka to BIT Mesra on July 21st & 22nd '08.
2. Visit and interaction of a team of Professors from Production, EEE, ECE, Mechanical and Civil department to the respective departments of BIT, Sindri on 30th & 31st May'08.
3. Major Joint activity had been "Revision of Polytechnic syllabus", as requested by Department of Science and Technology, BIT Sindri, and BIT Mesra, jointly offered consultancy to the State Board of Technical Education for revising the Curriculum of the diploma Courses of the state polytechnics. The University Polytechnic BIT Mesra hosted the first meeting on 17th December 08 for the purpose. This was followed by a series of meetings attended by experts from BIT Mesra and representatives of State Board of Technical Education and the polytechnics.
4. Meeting held at BIT Mesra on 22nd Jan and on 27th -28th Jan regarding joint consultancy to State Board of Technical Education Jharkhand for revision of Polytechnics syllabus
5. 4 Committee members from BIT, Mesra went to BIT Sindri on 24th Jan'09, for the follow up meeting regarding Revision of Polytechnic Syllabus.
6. Meeting held at Department of Science & Technology Govt. of Jharkhand on 29th Jan regarding joint consultancy to State Board of Technical Education Jharkhand for revision of Polytechnics syllabus
7. State level Institutional Self Assessment carried out at BIT, Mesra on 2nd December '08 attended by Director BIT Sindri, BIT Sindri, Principal Govt. Polytechnic Ranchi & Principal Govt. Polytechnic Dumka, and respective TEQIP coordinators.
8. Networking meeting held at BIT Mesra on 16.01.09 with all Networking Institutions.

Enhancing Quality and Reach of Services to Community and Economy:

The TEQIP project expects all the members of the faculty and students to participate in Institutional programmes for rendering services to the local community and economy. All programmes are demand based and identified through interaction with the community and economy with an aim benefit not only to the community and the economy (through improved productivity, earnings and quality of life) but also to students and faculty through implementation studies, Programmes and researches. Following products were selected by NPIU as Best Innovations: Solar Powered Pottered Wheel, Solar Powered Charkha and Pooja Dhoop extrusion machine.

In the present academic year, major emphasis was on socially relevant projects. The list of projects conducted is given below:

1. Community FM Transmitter for villages – inexpensive wireless public address system
2. Algal Biofuel Project: cultivation of algae in Raceaway ponds and Photobioreactors. The project also aims at CO₂ sequestration
3. Development of Hybrid Solar lighting, using solar concentrator, and fibre optics technology – useful for Photobio Reactor and Building lighting
4. Mini Hydro project
5. Waste Plastics to liquid Fuel –Pilot Plant Studies
6. Odourless Organic Waste to Compost in 1 week
7. Development of waste plastic modified Bitumen for road construction
8. Novel Furnace [Air Curtain Incinerator] design for Biomass to energy project
9. Development of Low Temperature Thermal Desalination Plant
10. Development of Prototype for concentrated Solar Power System
11. Portable testing kit for adulterants in food.
12. Fabrication of low cost and portable water pollutant detection kit and fabrication of modified home aid filter media for removal of fluoride and coliform bacteria
13. Investigation on Failure of Polyurathene Based Artificial Foot
14. Investigation on Solar Energy collector – Fresnel Reflector
15. Development of Integrated Medical Appliance. Following parameters can be measured: Temperature, Pressure, Malaria, Weight, Sugar, Tuberclorosis(TB)
16. Class Siren Control. Microcontroller based design for alarming the classes timing as per the working calendar of the Institute. This will have the feature of deferent alarm siren during regular classes and examinations
17. Attendance Management System. This system is based on finger print recognition system, which identifies the persons and their time arrival. This could be used in all Departments.
18. Monitoring Station for Library. In this system monitoring of different section could be achieved at a control room of Library/Examination with the use of CCTV.
19. Wind Power System. In this system wind generated due to road and railway traffic can be utilized for running the air turbine generator, which will charge the battery and transmitted as continuous power.

Mentoring:

Mentoring is an ongoing process of the Project as the project requires regular guidance on various difficulties (TEQIP related arena as well as Institutions internal ones), concept clarity, setting pace of implementation, convincing concerned authorities, etc. In the present academic year, third and fourth Mentoring for the Project was conducted by Prof. M.K Banerjee, Director NIFFT, Ranchi on 27th April '07, 18th January '08 and 12th November'08 respectively.

Quality Performance Audit:

As part of Institutional reforms, the Institutions under the Programme are to establish mechanism for quality performance audit using external agencies. The findings of these audits are used for taking remedial actions to improve performance of the Institutions in the Programme implementation. The basis of the audit were Output and Outcome indicators:

Output indicators:

Professional Outputs : Number of Publications, Number of Academic Products, Number of Patents obtained Number of Patents applied, Number of faculty members serving as reviewers of refereed journals and books, R&D Products.

Revenue Generation : Recurring Expenditure, Income from students and other sources, Internal Revenue Generation (IRG).

Number of joint programs with formal network partners : Externally funded research, design and development projects, Joint consultancies, Joint publications, Joint training and continuing education programs, Joint research guidance for MTech/PhD work, Joint Seminars, conferences, etc.

Services to Community : Technical Training and Appropriate technologies for the community (including socially disadvantaged groups and unemployed youth), unorganized labour sector, and for organized sector (industry personnel)

Availability of trained institution managers : Number of training programs organized on planning & management, and persons trained in planning & management.

Outcome Indicators includes following fields:

Cooperation & resource sharing between TEQIP institutions : Number of faculty –days loaned, student-days sent to network institutions, joint Mtech and PhD, and persons –days for which your laboratories and workshops were used by other TEQIP institutions.

Internal efficiency of the engineering education system: Number of teaching days in academic Year, Autonomy in academic Calendar, admission process, conducting examinations, Number of days taken for completing the admission process, semester/annual examination, declaring semester or annual examination results, total office expenditure, and salary expenditure per student per year.

Services to the Community and economy: Involvement of the institutions with the community, Number of Technologies transferred, and beneficiaries of training programmes to the community, unorganized and organized sector.

Planning and Management of technical education system, making it demand driven and forward looking: Number of UG and PG engineering programs started during project life as proposed in CIP, UG and

PG engineering programs that were revised/reoriented/restructured, Average time taken for revising/updating curricula, Frequency of Board of Governors meeting.

During the present academic year two Audits were conducted. The sixth Audit conducted by Dr. R.K.Singh on 4th-5th April 2008 and BIT obtained the score of 9.2. The seventh performance Audit has been conducted by Prof. S.K.Sahu from NIT, Rourkela from 20th -22nd September'08 and score obtained by BIT is 9.4. The earlier Auditor included Prof A.K.Ghose, ex Director ISM Dhanbad.

Joint Review Mission:

In the present year two Joint Review Missions (JRM) were held to discuss progress of the project at various states. The meetings are taken by Experts from World Bank, to discuss scores by Stake Holders and by Auditors. BIT participated along with Project Director and Principal Secretary Department of Science and Technology, Govt of Jharkhand. in 9th Joint Review Mission on 30th June to 4th July'08 held in NOIDA, and 10th Joint Review Mission was held in Warangle from 19th to 23rd January, 2009. The 9th JRM was attended by Dr. M. Mukherjee, and Mr G.S. Sharma. A special meeting was conducted on 4th July for not well performing states – Uttar Pradesh and Jharkhand, by at NPIU premises. All the participating Institutes of these two states were invited. Dr P.K.Barhai, Vice Chancellor, Dr M.Mukherjee and Mr. G.S. Sharma attended the meeting. The project planning for the remaining period of the project was done on the basis of the advice of the World Bank, MHRD and NPIU. The 10th JRM at Warangle was attended by Dr M. Mukherjee, and Mr. G.S. Sharma, as well as Dr. Shraddha Shivani, who helped SPFU to compile the States presentation. Effort was made to emphasize the progress of the State of Jharkhand after the 9th JRM.

State Level Self-Assessment:

Institute Self Assessment Exercise was conducted by a team nominated by Vice chancellor BIT Mesra, with guidance from Mentor, Prof. M.K. Banerjee on 7th June'08 at BIT Mesra. The committee members included Dr. D. Sasmal, Dr. Usha Jha, Dr P.C.joshi, and Dr. Utpal Baul. A report was prepared and forwarded to SPFU for preparation of State level Self Assessment.

The TEQIP Cell at BIT Mesra coordinated the State level Self-assessment workshop on 2nd December, 2008 for all TEQIP institutions of the state. The Self assessment carried out by the institutions was evaluated by the State level review committee comprising of the Mr. R.S. Sharma, Principal Secretary, Deptt. of science and Technology, Govt. of Jharkhand, Dr. Arun Kumar, Director Department of Science and Technology, Govt. of Jharkhand, Mr. M.K. Deshmukh, Director MECON, Prof. M. K. Bannerjee, Mentor, Dr. Vishnu Priye Mentor, Dr. R.K. Singh, Mentor Dr. Shishir Kumar Sahu, Mentor. The workshop was also attended by Vice Chancellor, BIT Mesra, Director, BIT Sindri, Principals of Govt Poly Technique Ranchi and Principal of Govt Polytechnique Dumka. The TEQIP coordinators of all TEQIP Institutions of the state presented the Self Assessment Report. State Level Self Assessment Report was prepared on the basis of the findings of the Workshop and forwarded to NPIU.

Survey of Implementation and Impact of Teqip, 25th August 2008:

A survey of implementation and Impact of Technical/Engineering Quality Improvement Project to collect feedback from all entities involved in the implementation of the project to help improve the design of a future project and identify better project implementation strategies. The survey was designed to assess key aspects of the project impact, design and implementation, role of the World Bank survey of implementation and Impact of k, MHRD/NPIU State Governments/SPFUs and the mentors. The participants for this on-line Survey were State secretaries, of education, State Directors of Technical Educations, Directors of SPFUs, Head of Participating

Institution and TEQIP coordinators. Prof P.K.Barhai, Vice Chancellor and Prof (Mrs) M.Mukherjee, Dean Development Programme and TEQIP Coordinator BIT participated in the survey.

Financial Auditing:

The Project started from 12.04.2005. The of funds to B.I.T. Mesra was released time to time. TEQIP Accounts were audited for the period 2005-06, 2006-07 and 2007-08 by M/s N. K. Kejriwal & Co. and for the Period of 2008-09 by M/s Deewan & co. as per guideline of NPIU and SPFU. The Project has been completed well in time with additional support of State Govt. The project ended on 31st March 2009. The details of Audit are given here under.

Details of Audits of TEQIP Accounts

Sl. No.	Auditing Date	Name	For the year
1	16.09.2006	M/s N. K. Kejriwal & Co.	2005-06
2	11.07.2007	M/s N. K. Kejriwal & Co.	2006-07
3	28.08.2008	M/s N. K. Kejriwal & Co.	2007-08
4	29.07.2009	M/s Deewan & Co.	2008-09

Mr. G. S. Sharma, Nodal Officer, Procurement & Financial Aspects, and Dr (Mrs) M. Mukherjee, Co-ordinator of Project & Dean Development of Programme time to time attended the seminar on Procurement of Equipments, LR's & Finance as arranged by NPIU at various places. The Procurement of Equipment and LR's was done under the policy and guideline of as directed by NPIU time to time through National Competitive Bidding (NCB), National (NS) and Direct purchase as per norms of TEQIP Procurement rules which as been also audited by M/s Price Water House Cooper and expert team of NPIU.

Implementation Completion and Results Report

After completion of TEQIP, as per direction of NPIU, the participating states are preparing a comprehensive Project Implementation Completion and Results Report (ICR). BIT is participating in the preparation of the state ICR for Jharkhand. This is a detailed report covering the following issues

1. Assessment of project Objective, design, implementation and operation experience
2. Assessment of achievement of project development objectives, including overachievement and shortfalls and reasons thereof
3. Assessment of achievement of project components, including overachievement and shortfalls and reasons thereof
4. Evaluation of the performance during the evolution and implementation of the project, with special emphasis on lessons learned that may be relevant in the future
5. Evaluation of the performance of the Bank during evolution and implementation of the project
6. Proposed arrangements for future project operation.
7. Key lessons learnt both positive and negative that should be taken account of in any future operation.

National Cadet Core



3 Jharkhand Comp Tech Coy NCC, Mesra, Ranchi

NCC- National Cadet Corps of BIT Mesra is one of the important components of the institute. 3 Jharkhand Composite Technical Company NCC, BIT Mesra enrolls 200 cadets for EME, Enrs and Signal platoon in the year 2008-2009. Cadets who had been enrolled are as follows:

Year	EME	Engrs.	Signal
2007	60	70	70
2008	60	70	70

During the regular training the cadets of 1st semester were given training for Drill, command & Control, compass reading, leadership training, Intro. to Army organization & Health & Hygiene classes.

4th Semester cadets were given technical training in the field of

Engrs- Bridge building, Road layout, Mine etc.

EME- given training for Army vehicles, maintenance

Signal- given training for communication, use of Telephones & Codes.

All cadets joined for National celebration Republic Day parade & Independence Day parade.

The unit was visited by Deputy DG, Brig S. K. Aneja and Group Commander, Col. Anand Bhushan, VC & other dignitaries. 3 Boys received Sahara Scholarship of Rs. 30,000.00 each.

We also organised National Integration Camp 2008-2009 where 1000 cadetes Girls & Boys joined for camp. Our 5 cadets got CATC and 5 cadets got "B" certificate for NCC.

Commanding Officer for 2008-2009 session : Lt. Col. S. K. Singh

Commanding Officer in Office (2009-2010) : Lt. Col. A. K. Mishra

National Service Scheme



Special events:

1. Aug 11-15, 08: Practice of patriotic songs and other preparations for Prabhat Pheri on the occasion of Independence Day.
2. Sep, 08: Literary events like poetry competition, essay writing competition, speech competition for student of nearby schools.
3. Oct, 08: Briefing on blood donation.
4. Oct, 08: Blood donation camp at BIT dispensary.
5. Dec, 08: special camp for the NSS students.
6. Jan12-18, 09: National Youth Week celebration.
7. Jan 22-25, 09: Practice of patriotic songs, National Anthem and National Songs.
8. Jan 26, 09: Prabhat Pheri.
9. Feb, 08: Sports meet for students of the nearby schools.

EXTENSION CENTRES

Naini, Allahabad



The Extension Centre at Allahabad is located at the Raymond crossing on Allahabad-Mirzapur Road. This Centre was established in the session 1997-98 with the decision to start B. Tech. Degree programme in Civil, Mechanical and Electrical & Electronics Engineering for the working Engineering diploma holders on part time basis. The first batch of students of B. Tech programme was admitted in January 1998 and so far, four batches of students have completed their B. Tech. Degree programme and the fifth batch is due to complete in June, 2009.

In view of demand of trained computer and management personnel at National level and as also to provide job-oriented professional education and training the youth of the area, the Institute introduced (3-year) full-time courses like Bachelor of Computer Applications (BCA), Bachelor of Business Administration (BBA) and Master of Computer Applications (MCA) in subsequent years.

The computer laboratory of this centre has over 100 P-4 computers connected through LAN and Internet connectivity is available through out the day. The Institute Library has a reasonably good number of text books and Technical Journals are being regularly subscribed by it. The library currently provides access to e-journals like ACM, PROWESS Database of CMIE Mumbai and other resources to the faculty, students, staff under internet environment. The centre has its own website where relevant information regarding the centre are available throughout the year.

Some of the engineering laboratories developed by the centre are Electrical Machines laboratory, Basic Electrical & Electronics laboratory, Microprocessor laboratory, Digital Electronics laboratory, Control Engg. laboratory, Power Electronics laboratory, Digital Signal Processing laboratory, IC Engines laboratory, Manufacturing Processes laboratory, Non-conventional Energy laboratory, Hydraulics Laboratory, Surveying and Geotechnical Engg. Laboratory.

The centre has a moderate play ground, Volleyball Court and Badminton Court. The centre encourages students to organize co-curricular and extra curricular activities such as Games and Sports meet, Cultural meet, Quiz, Debates & Essay competition, Painting & Photographic competition etc at periodic intervals.

Keeping in view the requirements of the region, the following full time programmes are being planned to be added in near future at Allahabad Centre.

1. 4-year (Full Time) BE in Electronics and Communication Engineering
2. 4-year (Full Time) BE in Computer Science & Engineering
3. 2-year (Full Time) Master of Business Administration (MBA)
4. 2-year (Full Time) M.Sc. Information Technology

The centre is poised for expansion in a big way. The deck has been cleared for a three-storied new Institute building having floor area of 275,000 sq. ft. and the construction work is due to begin soon.

Infrastructure Added:**(I) Department of Computer Science**

Sl. No.	Description	Quantity
1.	Server (HP Make)	01 No.
2.	Desktop Computers (HP Make)	25 Nos
3.	24-port Managed Dlink Switch (for Networking)	01 No.
4.	10 KVA 3-phase UPS(Pegasus Make)	01 No.
5.	Red Hat Enterprise 5.0 (Server Version) Software	01 Set
6.	MSDN Academic Alliance 7.0 Win32 Subscription Software	01 Set
7.	Adobe Creative Suite 3.0 Web Premium Software	01 Set

(II) Department of Management

For the current year also the Department of management has installed and operationalised PROWESS Database of CMIE, Mumbai. The database is being extensively used by the students for their projects and faculty members for their research work and other academic activities.

(III) Department of Civil Engineering

Sl. No.	Description	Quantity
1.	Slump test apparatus as per with tamping rod and base plate	1 Set
2.	Air permeability test apparatus (Blain Type)	1 Set
3.	Lee Chattelier's apparatus for soundness test	1 Set
4.	Vicat apparatus for consistency and setting time test	1 Set
5.	Cement spatula	1 Set
6.	Gauging Trowel	2 Nos.
7.	Thickness gauge	1 Set
8.	Length gauge	1 Set
9.	Cylindrical metal measures	1 Set
10.	Density basket	1 Set
11.	Aggregate crushing value test apparatus	1 Set
12.	Aggregate impact value test apparatus with blow counter	1 Set

With the equipments mentioned above a moderate civil engineering materials testing laboratory has been established at the centre.

(IV) Department of Electrical & Electronics Engg.**Renovation of Electronics laboratory for creating a dust free environment:**

- i. Vinyl flooring of electronics laboratory.
- ii. Glass with aluminium frame has been fitted at the exit points and windows.

(V) Common Facilities

The centre has added the following common facilities:

Sl. No.	Description	Quantity
1.	Digital Copy Printer (Gestetner Make)	01 No.
2.	600 VA UPS (Microtek Make)	01 No.
3.	Deskjet Printer (HP Make)	01 No.
4.	1 KVA UPS (Microtek Make)	01 No.
5.	Water Cooler (Bluestar Make)	02 Nos.
6.	Water Purifier 50 ltr (Kent – RO)	02 Nos.
7.	Stand for two wheelers 60' × 10'	02 Nos.
8.	Colour Television(LG Make): For Guest House	02 Nos.
9.	Water Purifier 15 ltr (Kent –RO) : For Guest House	01 No.
10.	Refrigerator (Godrej Make) : For Guest House	01 No.

Programmes offered:**(A) Full time Programme**

1. Master of Computer Applications (MCA)
2. Bachelor of Computer Applications (BCA)
3. Bachelor of Business Administration (BBA)

(B) Part Time Programme

1. B.Tech in Civil Engineering
2. B.Tech in Electrical & Electronics Engineering
3. B.Tech in Mechanical Engineering.

Seminar/Conferences/ Short-Term courses attended by the faculty:

1. Dr. S.K. Pandey, Lecturer, Department of Management has attended a Faculty Development Programme on "Management Information System" held from 22nd June to 4th July 2009 at MNNIT Allahabad.
2. Sri A.K.Keshri, Lecturer, Department of Computer Sc. has attended a Faculty updation training on "Network Programming and Security" held from 8th June to 19th June 2009 organized by C-DAC Hyderabad in collaboration with JNTU Hyderabad.
3. Dr. S.K. Pandey, Lecturer, Department of Management has attended a Faculty Development Programme on "Stress Management" held from 8th June to 12th June 2009 at MNNIT Allahabad.
4. Mrs. N.Tiwari, Asso. Lecturer, Department of Management has attended a Faculty Development Programme on "Stress Management" held from 8th June to 12th June 2009 at MNNIT Allahabad.
5. Mrs. Sweta, Asso. Lecturer, Department of Management has attended a Faculty Development Programme on "Stress Management" held from 8th June to 12th June 2009 at MNNIT Allahabad.

6. Sri A.K.Keshri, Lecturer, Department of Computer Sc. has attended a AICTE sponsored Faculty Development Programme on "Advances in Information Systems Research & Education" held from 27th April to 2nd May 2009 at IIM Kozhikode.
7. Dr. S. K.Pandey, Lecturer, Department of Management has presented a paper at National Conference on Banking & Finance in 21st Century held at BHU, Varanasi on 5th April, 2009.
8. Dr. A.K.Mahanty, Lecturer, Department of Management has presented a paper at National Conference on Banking & Finance in 21st Century held at BHU, Varanasi on 5th April, 2009.
9. Sri P.Munda, Asso. Lecturer, Department of Management has presented a paper at National Conference on Banking & Finance in 21st Century held at BHU, Varanasi on 5th April, 2009.
10. Sri P.Munda, Asso. Lecturer, Department of Management has attended a one-day seminar on "Presentation Skills and Secretarial Practice" on 24th February 2009 held at Ewing Christian College, Allahabad.
11. Dr. S.K. Pandey, Lecturer, Department of Management has attended a Faculty Development Programme on "Entrepreneurship and Innovation" held from December 22,2008 to January 03, 2009, organized by Motilal Nehru National Institute of Technology, Allahabad, School of Management Studies and sponsored by Ministry of HRD, Govt. of India and AICTE, New Delhi.
12. Sri S. Kanungo, Sr. Lecturer, Department of Computer Science has participated in a short-term training programme on " Multi-objective Optimization Using Evolutionary Algorithms (MOEA-08)" held during December 1-5, 2008, organized by ABV-IIITM, Gwalior and sponsored by MHRD/AICTE.
13. Sri S.C. Pandey, Sr. Lecturer, Department of Computer Science has participated in a short-term training programme on " Multi-objective Optimization Using Evolutionary Algorithms (MOEA-08)" held during December 1-5, 2008, organized by ABV-IIITM, Gwalior and sponsored by MHRD/AICTE.
14. Sri Ajit Kumar Keshri, Lecturer, Department of Computer Science has participated in the MHRD-AICTE Staff development program on "Computer Architecture and Design" held during 29th October- 11th November, 2008, organized by National Institute of Technology, Rourkela.
15. Sri Dhaneshwar Mahto, Lecturer, Department of Mechanical Engineering has attended the Staff Development Programme on "CAD & FEM" held from 21st July to 2nd August, 2008, organized by Motilal Nehru National Institute of Technology, Allahabad and sponsored by Ministry of HRD, Government of India & AICTE, New Delhi.
16. Ms. Anita Kushwaha, Sr. Lecturer, Department of Computer Science attended the faculty development programme on " Wireless and Mobile Communication" held from 30th June-12th July, 2008, organized by Motilal Nehru National Institute of Technology, Allahabad and sponsored by AICTE/MHRD, Government of India, New Delhi.
17. Sri Dhaneshwar Mahto, Lecturer, Department of Mechanical Engineering has participated and presented a paper titled " Thermodynamic Analysis & Simulation of Gas Turbine Cycle With Inlet Fogging" held from 7-9 January, 2009, organized by Pondicherry Engineering College, Puducherry.
18. Dr. A.K. Mahanty, Lecturer, Department of Management has participated in " Effective Teaching" held from 16-09-08 to 20-09-08, organized at BIT, Mesra.
19. Sri Pradeep Munda, Lecturer, Department of Management has participated in "High Impact Presentation Skills" held on 24-02-09, organized at Ewing Christian College, Allahabad.

Publications:

1. Santanu Das, "Management of NPAs in Indian Public Sector Banks with special reference to Jharkhand", Udyog Pragati, NTIE, Mumbai, Jan-March issue, 2009.
2. S.C. Pandey, "Memory Convergence and Optimization with Fuzzy PSO and ACS", Journal of Computer Science-USA volume-4(2):139-147,2008.
3. P.C. Srivastava, "Hahn-Banach extension theorem for asymmetric norm in linear lattice", 78th Annual conference of the Indian mathematical society organized by the Department of Mathematics, University of Allahabad during 27-30 December 2008.
4. P.C. Srivastava, "A more general formulation of Hahn-Banach extension theorem with application to sandwich theorem", 78th Annual Session of the Academy held at Punjab University, Chandigarh from November 21-23, 2008.
5. P.C. Srivastava, "A gneralization of Hahn-Banach extension theorem for K-Quasi affine set-valued map", National Conference on 'Recent trends in pure & applied mathematics' held during July 11-12, 2008 at Deen Dayal Gorakhpur University, Gorakhpur.
6. R.S. Pandey, "A Cost Model for Participating Roles Based on Choreography Semantics" Proceedings of IEEE Asia-Pacific Services Computing Conference- Volume00, December 2008.
7. B.K. Singh, "Performance comparison of ANN and GM Models for Predicting Vehicle Emitted Suspended Particulates", International Conference- 'Enviro Energy 2009' to be conducted by NIT Kurukshetra during March 19-20, 2009.
8. Dhaneshwar Mahto, "Thermodynamic Analysis & Simulation of Gas Turbine Cycle with Inlet Fogging", Proceedings of the International Seminar- ICEE-09, held at Pondicherry Engineering College, Pondicherry during 7th Jan-9th Jan, 2009.
9. Dhaneshwar Mahto, "Performance of the turbojet, turbofan engine with variable properties", Proceedings of the International Seminar- ICEE-09, held at Pondicherry Engineering College, Pondicherry during 7th Jan-9th Jan, 2009.
10. Dhaneshwar Mahto, "Performance analysis of humid air gas turbines power plant", Proceedings of the International Seminar- ICEE-09, held at Pondicherry Engineering College, Pondicherry during 7th Jan-9th Jan, 2009.
11. Dhaneshwar Mahto, "A comparative analysis between simple and intercooled with film cooling" Proceedings of the International Seminar- ICEE-09, held at Pondicherry Engineering College, Pondicherry during 7th Jan-9th Jan, 2009.

Students' Activities:

BITEC Souvenir – 2008 published for better interaction of the outgoing students.

The students cultural committee organized various competitions such as debate, solo song, group song to promote spirit of healthy competition among the students on 15th August & 26th January.

Games & Sports Activities:

1. Cricket Team of the Centre participated in 17th "Chetan Devraj Memorial East Zone Inter Technical Institute Cricket Tournament" organised by BIT Mesra main Campus from 23rd January, 2009.

2. The Annual Sports & Athletic Meet-2009 was held at the centre from 12th-14th February,2009 .

Placement Activities:

1. The outgoing students of MCA have been selected in different companies like Accenture, TCS, Mphasis, Wipro etc.
2. The centre through its placement cell has initiated steps towards placements of BCA and BBA students. So far, three students of BCA have finally been selected by Wipro Technology.
3. The Placement Cell is already running Personality Development Program for MCA and this year we have started it for the students of BBA and BCA also.
4. The Placement Cell arranges test series, GD and Interview Sessions at periodic intervals for all outgoing students of full time programmes.

Patna



Birla Institute of Technology, a name synonymous with quality technical education, on the initiative of the Govt. of Bihar, established its Extension Centre at Patna in 2006. A Memorandum of Understanding was signed between the Institute and the Govt. of Bihar in 2005. Subsequently, the Govt. of Bihar allotted 25 acres of land located between the Bihar Veterinary College and the Jai Prakash Narayan International Airport at Patna and also released requisite funds for establishing the Centre. The Foundation Stone of the Centre was laid on 24th December 2005 and the institute was inaugurated by the Hon'ble Chief Minister of Bihar Shri Nitish Kumar on 21st September 2006.

Infrastructure Added:

- New Centralized Computer Lab with 200 P4 Computers with DELL Server connected to LAN to support multi user softwares.
- Video Conferencing system/devices installed
- Further extension of internet service in the Campus
- Remote Internship programme with M/S TCS & MS Mindree Ltd
- Institution of Brihaspati-2 software for implements advance e-learning

Programmes Offered:

1. Civil Engineering
2. Computer Science and Engineering
3. Electronics & Communication Engineering
4. Electrical & Electronics Engineering
5. Information Technology
6. Mechanical Engineering
7. Production Engineering

Projects:

Ongoing Projects:

1. Project on "preparation and characterization of Lithium Titanate for Blanket application in Fusion Reactor" – Dr. S. K. Sinha, Deptt. Of Applied Physics, Duration – Aug.2007 – Aug.2010, Santioning Agency - Board of Research in Fusion Science and Technology Govt. of India
2. Project-Potential of Energy Consumption and Conservation in the State of Bihar and Jharkhand-Awarded to Prof: S. M. Sahay (EEE) by National Productive Council.
3. Proposal for Minor Research Project in Applied Mathematics Approved and financed by UGC,headed by Dr. Purnima Srivastva (Deptt.of App.Mathematics)

International Seminar / Conferences Attended by the Faculty:

1. Dr. S. K. Sinha of App. Physics, attended International Conference on " Structural Advance Material " Organized by Material Research Society, at Suntech City, Singapore, 30.06.09 – 04.07.09.
2. Dr. K. P. Tiwary of App. Physics, attended International Conference on Innovative Technologies (ICIT – 09) PDM College of Engg., Bahadurgarh, June 18 – 19, 2009.
3. Dr. K. P. Tiwary of App. Physics, attended International Conference on Semiconductor Materials for Device Fabrication by ECR Technique "
4. Dr. K. P. Tiwary of App. Physics, attended International Conference for Nanotechnology Industries (ICNI – 09), King Saud University, Riyadh, Saudi Arabia, April 05 – 07. 2009.
5. Dr. K. P. Tiwary of App. Physics, attended 2nd International Congress on Environment Science, GOA, Dec. 18 – 20, 2008.
6. Dr. K. P. Tiwary of App. Physics, attended 2nd International Congress on Environment Science, GOA, Dec. 18 – 20, 2008.

National Seminar / Conference / Short-term Courses attended by the Members of faculty:

1. Dr. K. P. Tiwary of App. Physics, attended National seminar on Applications of Nanoscience and Nanotechnology, Patna Women's College, Patna, 12.09.2008
2. Mr. Prashant Kumar of ECE attended National seminar on Applications of Nanoscience and Nanotechnology, Patna Women's College, Patna, 12.09.2008 His paper won the 2nd Prize in the Poster Presentation Group.
3. Mrs. Anubha Singh of Applied Chemistry, attended –
 - i. Seminar on " World Environment Day – 05th June " Organized by The Institution of Engineers (India), Dhanbad local centre & B. I. T. Sindri, 05.06.2009
 - ii. " Environmental Degradation & Remediation " Seminar Organized by Scientific Foresight & Dept. of Environmental Science, A. N. College, Patna, 05.07.2009.
4. Ms.N.Soren (EEE) presented paper at AECT2009,at MIT, Manipal on Energy Audit in hotel industry-a case study-April-2009
5. Mr. S.M.Sahay (EEE) delivered talk at BSPC Seminar at SCADA Sone Bhawan-on Petroleum &Energy Conservation.1 Aug-2009
6. Ms.Sheel Shalini(CSE) delivered lecture on 'Data base and its Security' in refresher course on IT and e-learning Jointly organized by Maghadh Mahila College and UGC Academic Staff College,P.U.on 01.11.08

7. Mr. Prashant Kumar (ECE) –
 - i. Workshop on Effective Teaching, 16 – 20 Sept. 2008 at B. I. T. Mesra
 - ii. MHRD / AICTE Sponsored Winter School on Opto – electronics Materials & Devices, Dec. 29 – Jan 02, 2009, at IIT Kharagpur, Ext. Centre Kolkata.
 - iii. MHRD / AICTE Sponsored Summer School on Technology CAD for VLSI Design 14 – 24 June 2009 at IIT Kharagpur,
8. Mr. Rajnish Kumar (Appl. Mathematics) attended workshop on Effective Teaching, 16 – 20 Sept. 2008 at B. I. T. Mesra.
9. Dr. P. K. Sahoo (Appl. Mathematics) attended 25th Annual Meeting of IAGRG at Saha Institute of Nuclear Physics, Kolkata, Jan 28 – 31 2009.
10. Mr. Soumen Mandal (Dept. of Mechanical Engg.) Course work at IIT Delhi “Applications of Solar Energy and Earned Carbon Credits”, 06 – 12 Feb 2009 Sponsored by Q. I. P., AICTE Govt. of India.
11. Mr. S. K. Pradhan (Dept. of Mechanical Engg.)
 - i. Short term course on Role of Soft Skills in Effective Classroom Management at IIT Roorkee, 23.06.08 – 04.07.08
 - ii. Short term course on Futuristic Nanocomposites at IIT Kanpur, 08.12.08 – 12.12.08
 - iii. MHRD / AICTE Sponsored Winter School on Opto – electronics Materials & Devices, Dec. 29 – Jan 02, 2009, at IIT Kharagpur, Ext. Centre Kolkata.
12. Mr. Sanjay Kumar (EEE) attended Short term course on “Innovation in teaching” Sep-2008 at B.I.T. Mesra.
13. Ms. N. Soren attended Short term course on “application of MATLAB” June-2008 at B.I.T. Mesra

Publications:

1. Rajinish Kumar “Some Nondifferentiable Multiobjective Programming Problem under Generalized d-V-type-I Univexity”, Journal of Computational and Applied Mathematics, 229 (2009) 175 – 182.
2. P. K. Sahoo “Spherically Symmetric Cosmic Strings in Biometric Theory”, International Journal of Theoretical Physics, 247 (2008) 3029 – 3034.
3. K. P. Tiwary “Effect of ECR Plasma exposure on the Optical Properties of Se 80 Te 20 XPbX thin films” Chalcogenide Letters vol. 5, no. 12, (2008) 309 - 316
4. K. P. Tiwary “Assessment of water and air contamination in the surroundings of UCIL, Jaduguda Mine”, Jharkhand Journal of Environmental Research and Development vol 3 (2008) 472 – 478.
5. S. K. Sinha “Piezoelectric Characterization of Iron doped Lead Zirconate Titanate ceramics” Accepted for Publication in Thin Solid Films.
6. Binay Bhushan “Raman Studies for early detection of Cancer in Human breast and cervical tissues” Conference on Laser Applications in Basic and Applied Sciences (CLBAS – 2009), Feb 14 – 17 2009, Dept. of Physics, Visva – Bharti, Shantiniketan.

MOUs:

1. MOU's between the Deptt. of Labour Resources, Govt. of Bihar and B.I.T. Mesra under Public Private Partnership (PPP) for enhancement in quality of training as well as industry interface, reduction in

industry- academic reality gap by imparting the required quality training to the technicians of ITI Digha and Women's ITI Digha, Patna

2. An agreement between the Vice-Chancellor, Central University of Bihar and the Vice-Chancellor Emeritus, B.I.T. Mesra has been signed for providing temporary accommodation to Central University of Bihar for 2 Years, with the consent of the State Govt.

Student Activites:

1. Abhinav Krishna (B.E. / 5527 / 08) - Attended a workshop on Molecular / Organic Electronic Device (MOED – 2009), Amritsar and Dalhousie, Sep. 22 – 25, 2009. Organized by Bhabha Atomic Research Centre.
2. Mr.Devesh Kumar, Himanshi Sinha, Prashant Pryadarshni : Initiated the installation of Brihaspati-2 the virtual Classroom is an e-learning system, the first of its kind in Bihar
3. Mr.Pranit Arora (B.E./5715/07) - developed a SPAMFILTER for VOIP systems for popular websites like Rediffmail & trade India.com



BIT Extension Centre Jaipur was established in 1995. The focus of the institute is to provide quality education in Engineering, Applied Sciences and Management with technology and professional exposure through innovative programmes & practices.

Driven by the mission that the technology and innovative management practices will be the gateway to the future growth, it is today one of the leading institutes of Rajasthan in the field of Engineering, Applied Sciences and Management.

A Glance to Various Departments

Computer Science & Engineering Department

The courses covered under this Department are BE in Computer Science & Engineering, MCA and BCA.

The Department of Computer Science is well equipped to inherit latest developments in the area of IT and software development. Computer science is concerned with the study of the hardware, software, and theoretical aspects of high-speed computing devices and application of these devices to scientific, technological, and business problems.

The emerging areas where the Department is putting thrust are; soft – computing and applications, optimization and control based software, mobile application development, high level multilingual search, adaptive and self organized compilers etc.

The Department has eight high-tech computer laboratories having over 400 machines of IBM, Compaq, Dell and HP connected to latest state of the art servers. Other laboratories have also been set up for Unix, CAD and simulations. With the objective of giving the students adequate practical exposure, the Department has latest versions of all required software such as Oracle, Developer, MS SQL Server, C++, JAVA, Visual Basic, MSDN, Visual Studio, Visual Prolog, MS Office, Adobe PhotoShop, C, Cobol, Symantec Anti virus, Rational Rose, Cyber Roam, AutoCAD 2008, etc, and OS like ; UNIX, Windows NT and Windows. The course curriculum and the hardware are constantly updated to keep pace with the fast changes in technology.

Electronics & Communication Engineering Department

The course covered under this Department is BE in Electronics & Communication Engineering

Electronics now days involve in all disciplines of engineering, it provides basic hard ware support to Computer Science, basic control and display systems to all kind of instruments and mechanical and electrical machines. When it combines with communication, it brings miracle technologies in wire line and wireless connectivity and networking like; Satellite Communication, Mobile Communication, Optical Communication, Broad Band SDH & ADSL, Internet and Intranet, Wireless in Local Loop (WLL), Bluetooth, etc. In nut shell, the advancement in the Electronics & Communication Engineering has played vital role in realization of the concept of 'Global Village'

The Department of Electronics & Communication Engineering in the institution conforms to the global scenario with its knowledge base, experience and infrastructure. The Department has learned teaching faculty qualified at M.Tech and Ph.D. levels. It has excellent lab infrastructure in the area of Basic Electronics, Control System & Instrumentation, Integrated Electronics, Analog & Digital Circuits, Semiconductor & Microelectronics, VLSI, DSP, Micro-controller & Microprocessor, Analog & Digital Communication, Optical Communication, Microwaves and Antenna. To give students exposure to software based designing, the Department has well equipped simulation lab having software simulation tools like MATLAB, MULTISIM, COMSOL, Code Composer Studio for DSP, Xilinx's ISE Foundation for VLSI design, System View, Open IT Guru, SUSE-V10, Ethernet Network Analyzer, Network Simulator, etc.

The Department ensures that the students graduate from here are well conversant with the conceptual knowledge, hand on and software based design skills and technology adaptation. The Department is looking forward to enhance core skill set through research and development in the emerging technologies like; Communication Systems, Software Defined Radio, VLSI, Microwave & Millimeter Wave Circuits, Optical Networks, Microstrip Antennas, Virtual Reality, etc.

Management Department

The courses covered under this Department are MBA and BBA .Both the courses are semester wise.

The fast development in corporate sector and other business enterprises has been defining the importance of management education to sustain the organization and attain growth in a highly competitive environment.

Matching to the new trends of professionalism in all business practices, the management Department of the institution offers specializations in the field of Marketing, Finance, Information Technology (IT) and Human Resource Management. The Department has learned teaching faculty qualified at Doctoral and Postgraduate levels in the Management discipline. For analytical research work, the Department has dedicated SYSTAT –V12 software tool along with shared computer network and software tools facilities of the institution.

The Department is looking forward to enhance its core strength to enter into new knowledge area related to emerging trends like ; retail sector, service sector, foreign trade, technology management, etc. Understanding the requirement of an additional skill set comprising of communication skills, leadership quality, crisis management, language proficiency, etc, the Department organizes regular personality development & training programmes, seminars and corporate visits.

Animation and Multimedia Department

The course covered under this Department is three years B.SC. degree in Animation and Multimedia.

Due to new mind set of people in the environment of globalization, the entertainment industry, particularly film and television, has been witnessing high growth, technology intervention and experimentation. Animation & Multimedia is the area that contains all these main aspects. The beauty of this segment lies in conveying the message in a very interesting and simple way. Understanding the market demand, three years degree course has been introduced in the Animation and Multimedia Department to train budding artists with the skills of 2D and 3D animation with multimedia application.

The Department has skilled and learned teaching staff having academic and industrial experience. The Department has excellent lab infrastructure for fine arts, 2D & 3D Animation, acting and well equipped computer

systems for multimedia application. The Department has specialized software like ; MAYA, COMBUSTION, 3DS-MAX, Toon Boom Studio, Adobe Suite, FLASH, etc.

Geo-Informatics Department

The course covered under this Department is two years M.SC. degree in Geo-informatics.

To explore our planet earth and its resources has always been a prime interest of human beings and mainly studied under the Geology discipline of science. It is highly benefited with the development of satellite technology and it's surveying branch remote sensing. IT is now a part of most of science and engineering disciplines, it has tremendous potential in Geological application too thus advent of new interdisciplinary subject Geo-informatics has taken place.

The Department of Geo-informatics in the institution offers a unique course at postgraduate level to formulate various application of computer and IT in geological surveys and resource analysis. The core strength of the institution in Computer Engineering and in remote sensing of BISR (an autonomous research institute promoted by the group) has given the excellent expertise and lab infrastructure support to the course. The Department has excellent lab infrastructure and software tools that include; well equipped remote sensing lab, Image Processing tools like; Eardas Imagine, Geomatica, Image Analyst & LICA Photogrammetry Suit and GIS Software tools like; ARC GIS, ARC View, Modular GIS Environment (MGE) & Geomedia Professional & Auto Cadd Map 3D

Infrastructure Added:

New Labs:

Following labs have been added

Wireless and Networking Lab - For BE (ECE) students

Computer Networks Lab- For MCA students

New Softwares

System View, SUSE (V10), Ethernet Network Analyzer, OPNET IT Guru, Network Simulator, Rational Rose, Cyber Roam, AutoCAD 2008 : For Engineering Application

SYSTAT (V12) : For Management Analytical Research

Programmes Offered

Undergraduate : B.E. in two branches of Engineering :

- i) Computer Science & Engineering (CSE)
 - ii) Electronics and Communication Engineering (ECE)
- BBA, BCA & B.Sc. (Animation & Multimedia)

Postgraduate : MBA, MCA, M.Sc. in Geo-informatics & M. Sc./ M.A. in Animation Design

Additional Programmes Started: M. Sc./ M.A. in Animation Design from session 2009-10

Projects:**Ongoing:**

Sl. No.	Research Project Topic	Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
1.	Promotion of Environment friendly Plasma Nitriding Process for Surface Hardening of Industrial Component	Dr. Ram Prakash	DST Govt. of India and NEI, Jaipur	55.0 Lacs
2.	Development of a microcontroller based technology of a pressure sensitive bed for immovable patients to reduce the risk of bed sore	Mr. S.P. Sarkar	Indian Council of Medical Research	8, 30, 888
3.	Development of spot animation film for promoting health care	Dr. Vibhuti Pandya	Rajasthan Health System Development Project, Ministry of Health, Government of Rajasthan	1,55,000
4	Oil Exploration In The District Of Barmer Of Rajasthan: Employment Generation And Sectoral Mobilization Of Working Force – Some Projections	Dr. Roopali Sharma, Reader, Management Dept.	Ministry of Labour & Employment, Government of India.	4,97,145.
5	Soft modeling of group dynamics : A cognitive psychology perspective	Dr. Madhavi Sinha, Reader Computer Science Dept.	Department of Science & Technology, Ministry of Science & Technology, Government of India.	11,29,440
6	Environmental Impact Assessment of unplanned dumping of Municipal Solid Waste: (MSW) Mathuradaspura dumping site Jaipur - A Pilot study	Dr. Anirudh Sahni, Sr. Scientific Officer	University Grants Commission, Govt. of India	10, 05,800
7.	DCMD Water Test Rig The endurance test for Direct Contact Membrane Distillation (DCMD) based water test rig is being carried out using solar energy. The work on scaling up of the water rig is also under progress.	Dr. S. K. Sharma, Professor, Chemistry Department	Self Financed Project	-

Project Completed:

Sl. No.	Research Project Topic	Principal Investigator	Funding Agency	Amount Sanctioned (Rs.)
1.	Computational quantitative plasma spectroscopy for tokamak plasmas	Dr. Ram Prakash	National Fusion Programme Govt. of India	22.8252 Lacs

Seminar/Conference/Short Term Courses Conducted by the Centre

1. National Workshop : National workshop on -" Effective Intellect Management : An Emerging Practice to sustain growth in knowledge based competitive business environment " was organized by the Department of Management at Birla Auditorium, BIT Extension Centre Jaipur, during April 16-17, 2008. The event was supported by ISRO, SAIL, Indian Oil Corporation, BSNL, Reliance Communications, IFS Sweden & Genpact. Dr. Roopali Sharma was the convener and Dr. Ritu Arora was the organising secretary of the workshop.
2. Technology day workshop : To commemorate the technology day in Rajasthan, one-day workshop was organized on "Environment Friendly Plasma Nitriding Process for Surface Hardening of Industrial Components" at Birla Institute of Technology, Jaipur Centre on 11th May 2008 in association with Department of Science and Technology, Govt. of Rajasthan. Participants from various scientific and academic institutions and industries attended the workshop. Dr. Ram Prakash was the convener of the workshop.
3. Special Session in IEEE International Conference: Management Department, BIT Jaipur Centre organized a special session on "Role of Intellect Management in the Emerging Technology Development Arena" in an IEEE sponsored International Conference on Recent Advances in Microwave Theory & Applications" held At University of Rajasthan, Jaipur on November 21-23, 2008. The innovative session was attended by renowned scientist & technocrats at national and international level. There was a theme talk, invited talk & research paper presentation by BIT, Jaipur Campus. The concept of the session was formulated by Dr. Abhinav Dinesh.

Seminars /Workshops/ Short term Courses attended by faculty

1. Jankiballabh Sharma, Summer research fellow program in IIT Delhi, June 15 –July 24, 08
2. Jankiballabh Sharma, NEN worksop on entrepreneurship, SKIT, Jaipur 27 Dec 08.
3. Rajeev Ranjan, Summer school on "Recent advances in electronics and communication " at NIT, PATNA, Duration: 16th-29th June 2008.
4. Rajeev Ranjan, Workshop on "research and development in engineering education" at BIT, MESRA. Duration: 18 Aug.-19 AUG. 2008
5. P.S. Rathore, Workshop on " Advanced applications of Power electronics and drives" at MNIT, Jaipur. Duration:30th June-11 July, 2008
6. ADM Kushwaha, attended one week AICTE-ISTE Sponsored Short Term Training Programme on "Use of MATLAB Tool Boxes For Real Time Applications in Electrical Engineering" during June 16-22, 2008 in B.I.T., Mesra, Ranchi.
7. J. Goswami, Winter School on "Advance DSP and application" at Rajdhani Institute of Technology, Jaipur, Duration:27th jan –6th Feb 09.
8. Ankur Aggarwal, Winter School on "Advance DSP and application" at Rajdhani Institute of Technology, Jaipur, Duration:27th Jan –6th Feb 09.
9. Ankur Aggarwal, Winter school on " satellite communication technology & applications" at IIT kharagpur. Duration: 16th -21 March,09
10. Ram Prakash, DST-SERC School held at BIT, Mesra, Ranchi from 15-27 Dec, 2008.

11. Ravindra Kumar participated in DST-SERC School held at BIT, Mesra, Ranchi from 15-27 Dec, 2008.
12. Rajni Agarwal attended a short term training programme on "Environmental Sustainable Management" from 21st – 25th Feb., 2009, organised by AICTE and ISTE at Jaipur Engineering College, Jaipur
13. P.K. Sharma & Mr. B. Pathak, Workshop on Effective Teaching at BIT Mesra, September 25-29, 2008.
14. Shripal Vijayvargiya, Attended a summer school on "Emerging trends and tools in open source computing" at MNIT, Jaipur on July 14 –26, 2008.
15. Subhash Gupta, Attended Summer faculty research programme –2008 at IIT Delhi for 6 weeks. Duration 9th June 08 to 21st July 08.
16. Vikas Sangwan, Jubilee conference on Women Education, Banasthali Vidyapeeth, Nov. 11-13, 2008
17. Santosh Kr. Sharma, Workshop on Microsoft Project-07 at CMC Ltd Delhi, January, 2009.
18. Anju Sharma & Seema Gaur, National Conference on Recent Trends in Information Technology: Opportunities and Challenges, July 31-Aug 1, 2008, Jaipur
19. Anuj Jhankal, short term course on "Computational Fluid Dynamics", IIT Roorkee, June 16-20, 2008
20. Anuj Jhankal, workshop on "Teaching Methodology & Innovations in Mathematics", UDML College of Engineering, Jaipur, July 19, 2008
21. G. S. Malhotra, National Conference of Biomechanics at IIT Roorkee from 7 to 8 March, 09
22. I.K. Dadheech, Short term course on "Computational Fluid Dynamics", IIT Roorkee, June 16-27, 2008.
23. Roopali Sharma, MHRD/AICTE sponsored summer school "Applied Economics & Quantitative Techniques" held at MNIT, Jaipur, From June-30, 2008- July 12, 2008.
24. Roopali Sharma, MHRD/ AICTE sponsored summer school " Developing Teaching Skills in Management" held at MNIT, Jaipur. From July 14, 2008- July 25, 2008.
25. P.N. Gupta, One-day seminar on Six Sigma Applications on Plastics Industries conducted by Plastic Manufacturing Association of Rajasthan, Jaipur on 22 nd October, 2008.
26. Pankaj Sharma, "Developing World Class Teaching Competencies: A New Perspective" sponsored by AICTE, New Delhi in collaboration with RTU, Kota on 1-15th May 2008. IIM, Jaipur
27. Ritu Arora, MHRD/ AICTE sponsored summer school "Applied Economics & Quantitative Techniques" held at MNIT, Jaipur, From June-30, 2008- July 12, 2008.
28. Ruchi Sharma, "Consumer Rights in India" organized by Management Development Academy, Indian Institute of Public Administration, New Delhi & HCM Rajasthan State Institute of Public Administration on 19-20th February 2009.
29. Abhinav Baxi, National level conference on "India in the Emerging Order- Challenges & New Opportunities" organized by Department of Economics, DAV College, Malout Punjab, November 15, 2008.
30. Vibhuti Pandya, Mr. Vivek Sharma & Mr. Gautam Goswami, Seminar on Animation & Multimedia, Pinkcity Press Club, Jaipur, 5 April 2008
31. Vibhuti Pandya, National Conference on Animation Industry Academia Interface, Mumbai, 21-22 May 2008

32. Vivek Sharma, Entrepreneurship Workshop & Orientation Programme for NEN Faculty Coordinators, Poddar College of Management, Jaipur, 21 June 2008
33. Vibhuti Pandya, Mr. Vivek Sharma & Mr. Gautam Goswami, Seminar on Autodesk Maya & Max Software Application, Autodesk India Ltd. At hotel Clarks Amer, Jaipur, 5 July 2008
34. Vivek Sharma, NEN E Leaders summit, at SKIT, Jaipur, 4 October 2008
35. Vibhuti Pandya, Mr. Gautam Goswami, "Out Of The Box" seminar on creativity, held at Arch Academy, Jaipur 14 February 2009
36. Vivek Sharma, Unleashing Power of Ideas through Incubation, MNIT, Jaipur, 6 March, 2009
37. Jalaj Jain, the research scholar of the physics participated in the BUTY YOUNG SCIENTIST AWARD during the Plasma-2009 National Symposium held at BARC, Mumbai, during 10-13 Dec, 2008.
38. Jalaj Jain, the research scholar of the physics participated in the "Joint ICTP-IAEA Workshop on "Atomic and Molecular Data for Fusion" held during 20-30 April, 2009 at International Centre for Theoretical Physics, Trieste, ITALY.
39. Bishu Agarwal, the research scholar of the physics participated in the "Joint ICTP-IAEA Workshop on "Atomic and Molecular Data for Fusion" held during 20-30 April, 2009 at International Centre for Theoretical Physics, Trieste, ITALY.

Publications:

International Journals:

1. G. S. Malhotra, "Effects of varying viscosity and thermal conductivity on steady MHD free convective flow and heat transfer along an isothermal plate with internal heat generation" International Journal of Numerical Methods for Heat & Fluid Flow, Vol. 19, No. 1., pp. 78-92., 2009
2. G. S. Malhotra, "Unsteady MHD free convective flow and heat Transfer along a vertical porous plate with Variable suction and internal heat generation" Int. J. of Appl. Math and Mech. 4(5): 1-8, 2008.
3. G. S. Malhotra, "Effects of Variable Thermal Conductivity and Heat Source / Sink on MHD Flow Near a Stagnation Point on a Linearly Stretching Sheet" J. App. Fluid Mech., Vol. 2, No. 1, pp. 13-21, 2009
4. Madhavi Sinha "Genetic Algorithm: A versatile optimization tool", International Journal of Information Technology, Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi. Vol. 1, No.1, Jan-July 2009

Book / Monograph:

P.N. Gupta, co-authored text book on "Operations and Production Management", First edition, March 09, Ajmera Book Company, Jaipur. ISBA No 81-89314-83-1

Paper Presentation in Conferences/ Seminars/Symposia/Workshops:

Theme Talk/ Key Note Address/ Invited Talk/ Technical Session Chair in Seminar

1. Dr. Abhinav Dinesh, Theme talk on "Concept of Effective Intellect Management and its relevance to knowledge based growth" in the concept building session of the National workshop on Effective Intellect Management held At Birla Institute of Technology, Mesra, Jaipur Campus on April 16-17, 2008, Proceedings pp 11-14.

2. Dr. Abhinav Dinesh, Theme talk on "Concept of Effective Intellect Management and its Relevance to Technology Development" in the for special session on Role of Intellect Management in the Emerging Technology Development Arena in IEEE International Conference On Recent Advances in Microwave Theory & Applications" held At University of Rajasthan On November 21-23, 2008, IEEE Catalog No. CFP0891E- PRT, pp. 638-639.
3. Dr. Abhinav Dinesh, Key note Address as Chief guest & chair technical session in the National Seminar on – "Building Services Engineering : An Interdisciplinary Approach", Organized by The Institution of Engineers (India), Jaipur, March 7-8, 2009.
4. Dr. Ram Prakash chaired a session on "Observational and Modeling Anomalies" in the 14th Atomic Data and Analysis Structure (ADAS-2008) International Workshop held at Institute of Energy Research –Plasma Physics, Forschungszentrum Juelich GmbH, Germany during 29th Sep-2nd Oct 2008.
5. Dr. Roopali Sharma, Invited Talk on "Managerial Aspects in Co-Relating Trends, Techniques and Collective Intellect Leading to an Efficient Technology Development & Implementation" in the special session on Role of Intellect Management in the Emerging Technology Development Arena in IEEE International Conference on Recent Advances in Microwave Theory & Applications" held At University of Rajasthan On November 21-23, 2008, IEEE Catalog No. CFP0891E- PRT, page no. 642-645.

International Conferences/ Proceedings:

1. Ram Prakash, Jalaj Jain, Bishu Agarwal, P. Vasu, Vinay Kumar and R. Manchanda "A Nobel Method to Calibrate VUV Spectrometer-Detector System using Penning Discharge Lamp and ADAS code", Proceedings 14th Atomic Data and Analysis Structure (ADAS-2008) International Workshop held at Institute of Energy Research –Plasma Physics, Forschungszentrum Juelich GmbH, Germany during 29th Sep-2nd Oct 2008.
2. Madhavi Sinha, "Handling Certain Issues in the Evaluation of Machine Translation" International Conference on Asian Language Processing 2008, Chiang Mai, Thailand, November 12-14, 2008
3. Ritu Arora & Roopali Sharma "Human Resource Perspective for Highly Skilled & Sensitive Technocrats in a Sustainable Growth Model for An Organization", Proceedings of IEEE International Conference On Recent Advances in Microwave Theory & Applications" held At University of Rajasthan On November 21-23, 2008, IEEE Catalog No. CFP0891E- PRT, paper no MW 357, pp 649-651.
4. Roopali Sharma & Ritu Arora "MNCs And Ethics Of Global Corporate Social Responsibility- An Indian Perspective" published in the proceedings of International Conference On Management, Science And Arts Held At Faculty Of Management Studies Gurukul Kangri University Haridwar On September 15-17, 2008.
5. Roopali Sharma, "Foreign Direct Investment – Trends and Implications on Nepalese Economy" published in proceedings of an International Conference On State and Democracy in Nepal: Emerging Paradigm, Issues and Challenges held at University of Rajasthan On November 28-29, 2008.
6. Rishi, O.P., Govil, Rekha, "DCBITS: Distributed Case Based Intelligent Tutoring System", Proceedings of World Congress on Engineering and Computer Science, Vol 1007, pp 162-176, May, 2008
7. Rishi, O.P., Gaur Seema, Sharma Anju, Sinha Madhavi ; Modeling of Human Behavior at Work using Case Based Reasoning Published in proceedings IEEE International Advance Computing Conference March 6-7, 2009 organized by Thaper University Patiala, INDIA, PP 2076-2081
8. Rajeev Ranjan, "Reinforcement learning for dynamic channel allocation in mobile cellular systems" IEEE International conference on "Recent advances in microwave theory and application" MICROWAVE 08. at

University of Rajasthan, Jaipur. Duration: 21st – 24th Nov. 2008, Proceedings IEEE Catalog No. CFP0891E-PRT, pp. 924-927.

9. Neha Singh, "High Power Microwave and its Military Implication" IEEE International conference on "Recent advances in microwave theory and application" MICROWAVE 08, 21-24 Nov 2008 at Rajasthan University, Jaipur, Proceedings IEEE Catalog No. CFP0891E-PRT, pp. 871-874.

National Conferences:

1. Roopali Sharma & Ritu Arora, "Identification And Practicing Of Emotional Intelligence – A Track To Professional Success", National Workshop On Effective Intellect Management held At Birla Institute of Technology, Mesra, Ranchi, Jaipur Campus On April 16-17, 2008, Proceedings pp- 45-50.
2. ADM Kushwaha & Neha Singh "RSA Algorithm Implementation with Residue Number System for Network Security" 2nd National Conference with IEEE association during December 18-19, 2008 at Punjab Engineering College, Chandigarh.
3. ADM Kushwaha, "Radio over Fiber Technology for Wireless Communication" in 2nd National Conference with IEEE association during December 18-19, 2008 at Punjab Engineering College, Chandigarh.
4. ADM Kushwaha, "Comparison of Adaptive Algorithms for Noise Reduction in Audio Signals" National level seminar at NASDEC2-08 held at BIT, Mesra, Ranchi from 06-07 Nov 2008.
5. ADM Kushwaha, "Data retrieval using hand drawn queries" National Conference on "Application Specific Trends of Electronic Devices Circuits and systems" (ASTECS-09) held on 6 – 7 February 2009.
6. Neha Singh, "Overview of Residue Number system" National level seminar NASDEC2-08 held at BIT, Mesra, Ranchi from 06-07 Nov 2008.
7. Madhavi Sinha, "Design of an Intelligent-Agent Based Technique for solving Interprocess Synchronization Problem" Proceedings of the 3rd National Conference; INDIACOM-2009 Computing For Nation Development, February 26– 27, 2009 Bharati Vidyapeeth's Institute of Computer Applications and Management, New Delhi
8. Pathak B., O.P. Rishi, Gupta A., Bhatnagar A, Effectiveness of e Services with Service Oriented Architecture; Proceedings of the National Conference on Recent Trends in Information Technology: Opportunities and Challenges, July 31-Aug 1, 2008 Jaipur, pp 26-27.
9. O. P. Rishi., Ashok Sharma, Archana Bhatnagar; Agent based Approach of Service Oriented Architecture for Business Modeling. 3rd National Conference; INDIACOM-2009 Computing For Nation Development, February 26 – 27, 2008), pp-643-648.
10. O. P. Rishi, Archana Bhatnagar & Madhavi Sinha; Role of SOA in Computational Model of Business Process Published in Proceedings of Truba Business Technologies Conference (TBTC 09 - National Conference), 13- 14 March 2009, organized by Truba College of Engineering & Technology, Indore M.P. (INDIA), pp 195-199.
11. O. P. Rishi, Renu Sandhu & Chitra Sharma; Case Based reasoning for Measuring Steel Hardness: An Artificial Intelligence Approach Published in Proceedings of the National Conference on Cutting Edge Computer and Electronics Technologies 14-16 Feb, 2009. Organised by Department of Computer Science and Electronics & communication Engineering College of Technology, G.B. Pant University of Agriculture & Technology Pant Nagar India. (Student Paper)

12. O. P. Rishi, Prashant Sharma & Abhishek Sethi; Prediction of Stock Market using Artificial Neural Network: In Indian Context, Published in Souvenir of UGC sponsored National Conference on Impact on Society- Emerging Trends and Issues, Feb 28- March 01, 2009, organized by PG Department of Computer Science & IT, DAV College Amritsar Punjab (INDIA), pp - 17. (Student Paper)
13. O. P. Rishi, Gaurav Jain & Anupam; Case Based Reasoning based Sales Forecasting System, Published in Souvenir of UGC sponsored National Conference on Impact on Society- Emerging Trends and Issues, Feb 28- March 01, 2009, organized by PG Department of Computer Science & IT, DAV College Amritsar Punjab (INDIA), pp - 46.
14. O. P. Rishi, Swati Gangwani & Daljit Kaur; Case Based Reasoning Approach for Spam Filtering Published in Souvenir of UGC sponsored National Conference on Impact on Society- Emerging Trends and Issues, Feb 28- March 01, 2009, organized by PG Department of Computer Science & IT, DAV College Amritsar Punjab (INDIA), pp - 60.
15. O. P. Rishi, Apoorva Prakash & Ruhi Jain; Learning by Playing: A new Approach to Intelligent Tutoring System Published in Souvenir of UGC sponsored National Conference on Impact on Society- Emerging Trends and Issues, Feb 28- March 01, 2009, organized by PG Department of Computer Science & IT, DAV College Amritsar Punjab (INDIA), pp - 79. (Student Paper)
16. O. P. Rishi, Neha Choudhary, Suchita Shrivastava & Amit Vasistha; Guass Seidel method: Preeminent Optimization Techniques for Search Engine Optimization Published in Proceedings of Truba Business Technologies Conference (TBTC 09 - National Conference), 13- 14 March 2009, organized by Truba College of Engineering & Technology, Indore M.P. (INDIA), pp 267-272. (Student Paper)
17. O. P. Rishi, Satya Prakash & Anoop Bohra; Agent Based Service Oriented Architecture : Best Practices to Implement Web Services Published in Proceedings of Truba Business Technologies Conference (TBTC 09 - National Conference), 13- 14 March 2009, organized by Truba College of Engineering & Technology, Indore M.P. (INDIA), pp 200-202. (Student Paper)
18. O. P. Rishi, Neha Gupta & Mohit Sharma; Relay Agent: An Intelligent base for Intelligent Data Centre Published in Proceedings of Truba Business Technologies Conference (TBTC 09 - National Conference), 13- 14 March 2009, organized by Truba College of Engineering & Technology, Indore M.P. (INDIA), pp 84-86. (Student Paper)
19. O. P. Rishi, Priyanka Gupta & Shalini Singh; Effective Modeling of Emergency Medical Services Computational Approach Published in Proceedings of Truba Business Technologies Conference (TBTC 09 - National Conference), 13-14 March 2009, organized by Truba College of Engineering & Technology, Indore M.P. (INDIA), pp 44-46. (Student Paper)
20. Ram Prakash, Jalaj Jain, Bishu Agarwal, Vinay Kumar and P. Vasu "Boron spectral line pairs to characterize wall conditioned Tokamak, Proceedings of DAE-BRNS Symposium on "Atomic, Molecular and Optical Physics" held at IAUC, New Delhi during 10-13 Feb, 2009.
21. Jalaj Jain, Ram Prakash, Bishu Agarwal, P. Vasu, Vinay Kumar, R. Manchanda and S. Banerjee "Spectroscopic Characterization of Penning Plasma Discharge Source" Proceedings of National symposium Plasma-2009 held at BARC, Mumbai, during 10-13 Dec, 2008.
22. Ravindra Kumar, Ram Prakash, J. Alphonsa, A. K. Agarwal, K. S. Boob, J. Ghanshyam, Pratipal Rayjada, P.M. Raole, and S. Mukherji "Plasma nitriding and microstructure study of AISI 52100 ball bearing steel" Proceedings of National symposium Plasma-2009 held at BARC, Mumbai, during 10-13 Dec, 2008.

23. Bishu Agarwal, Jalaj Jain, Ram Prakash, Ravindra Kumar, Vinay Kumar and P. Vasu "Synthetic Spectrum of Neutral Helium Line Emission in Purely Ionizing and Recombining Plasmas" Proceedings of National symposium Plasma-2009 held at BARC, Mumbai, during 10-13 Dec, 2008.

Awards / Honours Bestowed:

Mrs. Archana Bhatnagar presented the paper and other co-authors comprising Rishi, O.P., Sharma Ashok, and Gupta Ashutosh received the best paper award on paper – "Service Oriented Architecture for e Governance: an Agent Based Approach, 6th International Conference on E-Governance, 18 - 20 December, 2008, Delhi,, Published in proceedings titled "Emerging Technologies in e Government" PP 19-28.

Technical Excellence:

Team of RAJESH MEENA, AYUSHI GARG, SHALINI SINGH, ISHA GAUTAM & SAAD ABDULLAH of BE-VI (CS) won the first prize in the event of ROBO-LINE FOLLOWER in Tech fest held at MNIT, Jaipur in JAN,2009 and at BIT, Patna Centre in March, 2009

Cultural and Fine Arts Excellence:

1. Mohit Garg of BE won the first prize in the event Kaun Banega Patrakar in cultural fest held at BITS Pilani, October, 08
2. Team of Tejeshwar & Soumen of B.Sc.(A&M) won the first prize in the event Face Painting in cultural fest held at MNIT, Jaipur, February '09
3. Ullas Sharma of B.Sc.(A&M) won the first prize in the event SOLO SINGING in cultural fest held at MNIT, Jaipur, February '09
4. Team of Nashant Raj, Priyanka, Ruchin & Gopal Gyani of B.Sc.(A&M) won the first prize in the event ADMAD in cultural fest held at MNIT, Jaipur, February '09
5. Team of Tejeshwar, Sonam & Soumen of B.Sc.(A&M) won the first prize in the event T- SHIRT PAINTING in cultural fest held at LNMIIT, Jaipur, February '09
6. Team of Abhinav, Aniket, Himanshu & Adil of B.Sc.(A&M) won the first prize in the event Orchestra in cultural fest Jalsa Organised by Dainik Bhaskar Jaipur, February '09
7. Ullas Sharma of B.Sc.(A&M) won the first prize in the event SOLO SINGING in cultural fest held at Jaipuria Management Institute, Jaipur, February '09
8. Team of Sayan Goswami, Sonali & Tejeshwar of B.Sc.(A&M) won the first prize in the event Political Cartooning in cultural fest held at IIRM, Jaipur, August'08
9. Team of Sayan Goswami, Varul & Tejeshwar of B.Sc.(A&M) won the first prize in the event Graffiti in cultural fest held at IIRM, Jaipur, August'08
10. Team of Sayan Goswami & Tejeshwar of B.Sc.(A&M) won the first prize in the event Poster Making in cultural fest held at IIRM, Jaipur, August'08
11. Sonam Sayan of B.Sc.(A&M) won the first prize in the event Ink Art in cultural fest MALHAR held at Mumbai in September'08
12. Team of Sayan Goswami & Tejeshwar of B.Sc.(A&M) of B.Sc.(A&M) won the first prize in the event Bill Board in cultural fest MALHAR held at Mumbai in September'08

Student Activities:

To groom and exhibit the Complete Persona of the students and to develop competitive skills among the students, following activities were organized by students in the BIT Jaipur Campus

1. Vibration 08 : A Cultural & Art Fest
2. TechVibes 09 : A Technical Fest
3. Cavorts 09 : A Sport Fest

Besides these, as an innovative personality development programme, special participative sessions were conducted by Mr. B.B. Pant, BIT Mesra along with faculty members to develop various Personality, Professional & Technical skills among the students. Seminar Presentations and workshop sessions by External Experts were also conducted regularly during the academic session.

Other events:

1. Collaborative Programmes initiated at the Jaipur Centre University of New Brunswick (UNB), Canada - For joint UG Level courses in Computer Science.
2. Ohlone Community College, CA, USA - For joint UG Level courses in Computer Science & Management.
3. National Entrepreneurship Network (NEN), India - For creating awareness and imparting training for Entrepreneurship to students.
4. SUN Microsystems (Major IT Co.), India - For development of software based projects at faculty & student level.
5. ICICI, India - For Joint Programme in Management – Post Graduate Programme in Management & Insurance (PGPMI).

An Innovative programme on Industrial Application:

Based on his earlier experience in TCS, Mr. Santosh Kumar Sharma, Lecturer CSE Department innovatively organized a training program for MCA students on "Software Quality & Testing Process" at BIT Jaipur campus. In this training program total 17 students participated. This training program basically concerned with how to test and improve quality of Software. After the training, some students appeared for Internationally renowned ISTQB Certification (International Software Testing Qualification Board) Exam. Following three students have earned the merit and glory for the institution by successfully clearing the ISTQB Certification:

1. Prashant Sharma MCA 5th semester
2. Swati Gangwani MCA 5th semester
3. Sonali Gupta MCA 5th semester

Kolkata



The Kolkata Extension Centre was established in 1995. This Centre offers academic programmes in Computer applications and Business Management. The Centre has the most modern computer laboratories, a well-equipped library and other academic infrastructure. The Centre, located in the southern part of the city, is well connected with the rest of Kolkata. The extensive 31, 000 sq feet premises of the Centre includes a spacious computer laboratory with a server room, several lecture rooms, a seminar hall, and

a well-equipped library with books, journals and an e-library. Students have free access to online journals through ACM, IEEE and Emerald-online. The whole Centre is networked both LAN and Wi Fi System and internet facilities are provided through a 2 mbps leased line.

Programme Offered

1. MCA
2. BCA
3. BBA
4. M.Sc/PG Diploma in Bioinformatics
5. M.Sc Geoinformatics

Out of these the M.Sc programmes have been introduced in the year 2005.

The computer laboratory has 210 modern HP and Dell PC's, and another 30 Compaq machines. The Centre will very soon offer high-class professional multimedia courses, for which the Dell PC's are specially configured. The Laboratory has latest software ranging from C, Turbo C++, Java, VisualStudio.net, etc, to Oracle 9i, Photoshop 9, Adobe Writer, Flash 8, Dreamweaver 8 and Rational Rose. Platforms include Windows 2000, Windows 2003 Server, Windows Workstation version, Red Hat Linux 4, etc.

All students of last batch of MCA have secured campus placements in renowned software organizations such as IBM Global Services, Accenture, Aricent Communication Software, TCS, Wipro, HP, Zensar, Computer Sciences Corporation etc . These students are doing their final semester projects in various organizations like CTS, WIPRO, ISI Calcutta, Jadavpur University, Electra Design automation, IBM GLOBAL, Aricent, TCS, APT source software, NIC. They are doing their projects on different platforms like R&D, Networking, Image Processing, VLSI design, Database software. The students are also encouraged to do in-house projects in their fifth/sixth semester under the guidance of the faculty members. They have also presented seminars in fifth semester.

The faculty at the Centre has a range of teaching, research and industry experience in Digital Image Processing, Mobile Computing, Distributed and Parallel Computing, Agile Programming, and Data Warehousing and Mining, Industrial Marketing, Corporate Finance, HR and Organizational Behaviour, Entrepreneurship, Industrial Relations. Many of them are also actively involved in training and development programmes as well as consultancy for different and public sector organizations.

Guest lectures are also delivered regularly by eminent professors from IIT Kharagpur, Jadavpur University, B.E College (Shibpur), Bengal Institute of Technology, Engineering and Management Institution under WBUT, Industry, Colleges under University of Calcutta etc.

Infrastructure added:

1. 21 new PC purchased for the Faculty and office staff
2. RAM upgraded to 110 Lab Computer
3. Two more class room has the LCD projection facility

Programmes offered:

UG Course 1. BBA 2. BCA

PG Course 1. MCA 2. M.Sc. (BIOINFORMATICS) 3. M.Sc. (GEOINFORMATICS)

Projects:

Ongoing Projects:

Sl. No	Research Project Topic	P.I. / Co- P.I.	Funding Agency	Amount Sanctioned
1.	Development of a PC-based Geo-referencing Software	Ambar Dutta/R. T. Goswami	DST	8.14 lakhs

Seminar/Conference/Short-term conducted by the Department:

1. Workshop on An Introduction to Computational Geometry (September 26-27, 2008)
2. Young IT Professional Award (Eastern Region) Jointly organized with Computer Society of India, Kolkata Chapter (November 28, 2008)

Seminars / Conferences / Symposia / Short-term courses attended by the faculty members:

1. Sraboni Dutta, Subho Chaudhuri, Siba Mitra, Ambar Dutta, attended the Workshop on Effective Teaching at Birla Institute of Technology, Mesra, Ranchi during Sept 7-8, 2008.
2. Sraboni Dutta, Srabani Mukhopadhyaya, Debasis Mitra, Subho Chaudhuri, Ajanta De Sarkar, Ambar Dutta, R. T. Goswami, Sanchita Ghosh, Siba Mitra, Rohit Kamal Chatterjee Attended the Workshop on Introduction to Computational Geometry at Birla Institute of Technology, Mesra, Kolkata Extension Centre during September 26-27, 2008.
3. Sandip Kumar Sengupta, Sraboni Dutta, Subho Chaudhuri, Rohit Kamal Chatterjee Attended the one day Faculty Development Programme on Six- Sigma, conducted by TCS at Birla Institute of Technology, Mesra, Kolkata Extension Centre on 19th January, 2009.
4. Sandip Kumar Sengupta, Sraboni Dutta, Soumendra Bhattacharyaa Attended a lecture on "Potential and Constraints of India Emerging as a Global Economic Power" delivered by Prof. B.B. Bhattacharya, Vice Chancellor, JNU on July 26, 2008 at Tata Centre, Kolkata.
5. Soumendra Bhattacharjee, Tanmoy Banerjee participated in an Inter Active Session on "Present Day Education" delivered on 9th January, 2009 at the Conference Hall of the Bengal Chamber of Commerce and Industry, Kolkata by Prof. Alison Richard, Vice Chancellor of the University of Cambridge.
6. Srabani Mukhopadhyaya, Subho Chaudhuri, Ajanta De Sarkar, Ambar Dutta, R. T. Goswami, Sanchita Ghosh, Rohit Kamal Chatterjee Participated at the National Conference on Research and Development

in Hardware and Systems (CSI-RDHS 2008), organized by Computer Society of India, Kolkata chapter and CSI Division, June 20-21, 2008, Kolkata

7. A. Dutta, R. T. Goswami, A De Sarkar attended a two "Faculty Development Program" organized by Cognizant, Kolkata, June 30 – July 4, 2008, Kolkata.
8. R.T. Goswami, S. Chaudhuri, D. Mitra, A. Dutta, R. K. Chatterjee, Participated in the Young IT Professional Award (Eastern Region) Jointly organized with Computer Society of India, Kolkata Chapter (November 28, 2008)
9. A. De Sarkar Participated in the Convention on "Freedom in Computer Technology – 2008", organized by Jadavpur University, December 26-28, 2008, Kolkata.
10. S. Mukhopadhyaya, A. De Sarkar Participated in the Seminar on "Cloud and Grid Computing", organized by ACM Unit of Indian Statistical Institute, December 29, 2008, Kolkata.
11. R. T. Goswami participated in International CALIBER – 2009 in Pondicherry University during February 25-27, 2009

Publications:

Journals:

1. Ambar Dutta, Avijit Kar and B. N. Chatterji, "Corner Detection Algorithms in Digital Images in last three decades", IETE Technical Review, Volume 25, No 3, pp 123 – 134, May – June, 2008
2. Ambar Dutta, B. N. Chatterji and Avijit Kar, "Comparing and Evaluating Intensity Based Spatial Domain Corner Detectors", in the International Journal on Information Processing, ISSN 0973 – 8215, Volume 2, Number 4, 2008
3. "The Double Digest Problem: finding all solutions", Susmita Sur-Kolay, Satyajit Banerjee, Srabani Mukhopadhyaya, C Murthy, International Journal of Bioinformatics Research and Applications (IJBRA)
4. Sraboni Dutta (2008) "Brand Creation in Indian Small and Medium Enterprises: Significance and Challenges", In Brand Promotion and Global Competition, J. Dubey, (eds.) Excel Books.

International:

1. Sraboni Dutta presented the paper "Brand Creation in Indian Small and Medium Enterprises: Significance and Challenges" at International Conference on Brand Promotion and Global Competition at Institute of Public Enterprises, Osmania University, Hyderabad during 15th-16th September 2008.
2. Ambar Dutta, B. N. Chatterji and Avijit Kar, "Comparison of a Dozen Intensity Based Spatial Domain Methods for Corner Detection", in the Second International Conference on Information Processing (ICIP 2008), pp. 124 – 134, August 8 – 10, 2008, Bangalore, India
3. Ambar Dutta, Avijit Kar and B. N. Chatterji, "A Novel Approach to Corner Matching using Fuzzy Similarity Measure" for 7th International Conference on Advances in Pattern Recognition (ICAPR 2009), Indian Statistical Institute, Kolkata, India, February 4 – 6, 2009
4. Ambar Dutta, Avijit Kar and B. N. Chatterji, "A Novel Window-based Corner Detection Algorithm for Gray-scale Images" Sixth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP 2008), organized by IEEE, Kharagpur Section, Indian Institute of Technology, Kharagpur, and Indian Unit for Pattern Recognition and Artificial Intelligence (IUPRAI), Bhubaneswar, India, December 16 – 19, 2008
5. D. Mitra, S. Ghoshal, H. Rahaman, B. B. Bhattacharya, D. Dutta Majumder, K. Chakrabarty, "Accelerated Functional Testing of Digital Microfluidic Biochips", appeared in proceedings of 17th Asian Test Symposium (ATS 2008), pp. 295-300.

6. Ajanta De Sarkar, Dibyajyoti Ghosh, Rupam Mukhopadhyay and Nandini Mukherjee, "Implementation of a Grid Performance Analysis and Tuning Framework Using Jade Technology" in the Proceedings of The 2008 International Conference on Grid Computing and Applications (GCA '08: July 14-17, 2008) Las Vegas, USA, pp: 201-207.
7. Ajanta De Sarkar, Dibyajyoti Ghosh, Rupam Mukhopadhyay and Nandini Mukherjee, "Achieving Guaranteed Performance on Computational Grid" in the Proceedings of 11th International Conference on Computer and Information Technology (ICCIT 2008: December 25-27, 2008), Khulna, Bangladesh, pp: 353-358.

National:

1. A. Roy, A. Kumar, D. Jana, D. Mitra, Radha. Tamal. Goswami, "Online Scheme Towards Secured Inter Banking Fund Transfer", to appear in proceedings of INDIACom – 2009.
2. Dibyajyoti Ghosh, Rupam Mukhopadhyay, Ajanta De Sarkar, and Nandini Mukherjee, "Study of the Execution Performance of Parallel Loops in Open MP Programs using Different Scheduling Strategies" published in National Conference on Trends in Computing Technologies, February 2009, Chennai, India.
3. Rohit Kamal Chatterjee, "Detection of Microcalcification on Mammogram using Multi-Step Thresholding and Segmentation" published in national Conference on IT and Business Intelligence, during November 21-22, 2008, IMT, Nagpur

Students Activities:

- Intra College Cricket Tournament
- Intra College Debate Competition
- Club and Societies

► **COMMUNIQUE :**

Activities: GD/PI sessions on every alternate Saturday Monthly Debate Competitions

► **DISHA**

The Social Awareness Group or Disha was founded on the principle of philanthropy

Technocrat (Techiz Easy)

"Technocrat of Birla Institute of Technology" is a club formed with the aim of enhancing the knowledge of its members on latest computer technologies. It was formed on 31st January 2009

Other information:

1. R. T. Goswami, delivered a speech on "Urge of Software Testing and Current Scenarios", in One-day seminar on Modern Trend in Information Technology and Computer Application, organised by MCA Dept, Dr. B. C. Roy Engg. College, Durgapur, September, 2008
2. The following workshop organized for the faculty of various Engineering colleges, University including ours. This is organized by Tata Consultancy Services Kolkata
 - In the month of June 2009 Topic : "Service Oriented Architecture "
 - In the month of January 2009 Topic : "SIX Sigma"

The following workshop organized for the student of ours. This is organized by Tata Consultancy Services Kolkata

- In the month of November 2008 Topic : "Introduction to ERP – Oracle Application"
- In the month of October 2008 Topic : ".NET Architecture "

Lalpur, Ranchi

BIEC, Lalpur started as a Centre for Continuing Education initially with part-time postgraduate M.E. courses in the disciplines of Mechanical, Civil, Electrical and Electronics Engineering for the benefit of officers working in various Ranchi based Public Sector Undertakings and private industries such as, MECON, SAIL, HEC, CIL, CMPDIL, UMIL, Nationalized banks, etc, who wished to upgrade their qualifications. Part-time evening courses were offered first for M.E. then subsequently the MBA, MCA and DCA courses were started. The laboratory classes were conducted on Sundays and holidays at the Mesra campus. This Centre is now named as Lalpur Extension Centre.



Programmes Offered:

- A. Full Time** : Bachelor of Computer Application, Bachelor of Business Administration, Master of Computer Application, Master of Business Application, M.Sc. (Information Technology)
- B. Part Time** : Master of Business Administration, M. Tech. (Computer Science)
- New Programme Started** : P G Diploma in Language Technology (Dept of CS & E)

Faculty Achievements:

Dr. A.N Jha

1. "An empirical study of work and family life spheres and emergence of work-life balance initiatives under uncertain economic scenario", Journal of Management Training Institute, SAIL, Ranchi, April-June 2009
2. A Ph.D thesis guided (submitted) "Work Life Balance of Indian expatriates:- A case study of higher education teachers in Bahrain, Oman and UAE by Mr. Pranav Naithani, Sr. Lecturer, BITIC, Muscat, Oman.
3. "Model of Expatriate Adjustment and Framework for Organizational Support" The Alternative Journal of Management Studies and Research at BIT, Mesra, Oct-08 to March-09.

Dr. Pranab Kumar

1. Seminar/Workshop Attended - Venue - Birla Institute of Technology, Mesra; Topic- Workshop on "Effective Teaching"; Year – 2008; Duration - 5 days
2. Organized One Day workshop on "Managerial Skills" for working Executives at Waljat Colleges of Applied Sciences, Muscat.

Mr. Abhaya Ranjan Srivastava

Paper Presented:

1. Presented a paper in National Seminar on "Enhancing Competitiveness: A Key Challenge of Globalization", organized by Moti Lal Rastogi School of Management, Lucknow & presented a Paper on "GLOBALISATION & its IMPACT ON INDIAN ECONOMY".

Paper Published:

1. Title: "Liquidity Risks & its Management in Banks"; Journal: Masterstroke (The paper has been accepted for publication in the journal).

Any Other Achievement:

Organised one day workshop for executives on "Managerial Skills" at "Waljat Colleges of Applied Science, Muscat" (Oman) in January 2008.

Ms. Anupma Sahai

Conference / Seminar / Workshop:

1. Attended and Participated in Faculty Development Consortium and Special International Conference organized and cosponsored by Strategic Management Society and London Business School, Aditya Birla India Centre at Indian School of Business, Hyderabad (12 -14 December, 2008).
2. Quality Improvement Programme for Management Faculty on Human Resource Development from 25th February– 29th February, 2008, IIT Kharagpur, Sponsored by AICTE, under Faculty Development Programme

Mr. Somnath Mukherjee

1. Seminar/Workshop-Work shop on Intellectual property Rights organized by MSME in Ranchi.
2. Conferences-Paper titled "Branding an industrial product-the potential untapped" presented in National Seminar on Core Sector Management for Global Competitiveness in Department of Management Studies, Indian School of Mines University, Dhanbad on February 20-21, 2009

Mr. Sandeep Nath Sahdeo

Seminar/Workshop Attended:

1. "Branding Industrial product – The Potential Untapped", National Seminar on Core Sector Management, organized by ISM, Dhanbad on Feb. 20-21, 2009

Paper Presented:

1. "Branding Industrial product – The Potential Untapped", At the National Level Seminar on Core Sector Management, organized by ISM, Dhanbad on Feb. 21, 2009.

Books Reviewed:

1. Macro Economics by Errol D'souza of IIM, Ahmedabad

Mr. Ashutosh Mishra

Seminar/Workshop Attended:

1. National Workshop on effective intellect management on emerging practice to sustain growth in knowledge based competitive business - At BIT Jaipur, Date: April 16th-17th 2008.

Mr. S. Anis Haider

Seminar/Workshop Attended:

1. National Workshop on effective intellect management on emerging practice to sustain growth in knowledge based competitive business-- At BIT Jaipur, Date: April 16th-17th 2008.

Ms. Mili Dutta

Seminar/Workshop Attended:

1. Short-Term Course on Interpersonal Communication at IIT, Kgp 17th Feb. -22 Feb. 09

Mr. Satrajeet Choudhury

Seminar/Workshop Attended:

1. NORTH EASTERN REGIONAL INSTITUTE OF MANAGEMENT "Emerging Changes in Indian Financial System". (Dec 1 – 16, 2008) sponsored by AICTE.

Sayontani Choudhury

Seminar/Workshop Attended:

1. NORTH EASTERN REGIONAL INSTITUTE OF MANAGEMENT "Emerging Changes in Indian Financial System". (Dec 1 – 16, 2008) sponsored by AICTE.

Department of Computer Science

Dr. (Mrs.) Vandana Bhattacharjee

Seminar/ Workshop Attended:

1. Short Term Course on Selected Topics in Software Engineering IIT Kharagpur, November 2008

Conferences Attended:

1. National Conference NCM2C - 2008, JNU, New Delhi, December 2008
2. Annual Conference on Information Science Technology and Management, CISTM 2009, MDI, Gurgaon, July 2009

Paper presented:

1. "Use of Complexity Metric for Similarity Matching in Software Development Effort Estimation", NCM2C 2008
2. Divide and Conquer Based Clustering Using K Means Algorithm CISTM 2009

Paper Published:

1. Estimation of Software Development Effort in University Setting: A Case Study, Proceedings of National Conference on Architecturing Future IT Systems, NCAFIS'08, Indore, October 17 -18, 2008, pp. 40 – 43 (co – authored with Sanjay Kumar and Ekbal Rashid)
2. Use of Complexity Metric for Similarity Matching in Software Development Effort Estimation, Proceedings of National Conference NCM2C - 2008, JNU, New Delhi, December 2008
3. Initialization Algorithm for K-Means using Quad Tree, Proceedings of National Conference NCM2C - 2008, JNU, New Delhi, December 2008 (co – authored with Partha Sarathi Bishnu)
4. Software Development Approach of Students: An Evaluation, Proceedings of National Conference NCM2C - 2008, JNU, New Delhi, December 2008 (co – authored with Madhumita S. Neogi and Dr. Rupa Mahanti)
5. A New Dynamic Cohesion Metric for Object Oriented Design, Proceedings of International ICACT - 2008, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, December 2008 (co – authored with Vinay Singh and Kumar Rajnish)

6. A Case Study on Estimation of Software Development Effort, Proceedings of International ICACT - 2008, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad, December 2008 (co – authored with Ekbal Rashid and Sanjay Kumar)
7. A Dynamic Cohesion Metric for Object Oriented Design Proceedings of International Conference C3IT 2009, Academy of Technology, Hooghly, February, 2009 (co – authored with Vinay Singh and Kumar Rajnish)
8. Outlier Detection Technique using Quad Tree, Proceedings of International Conference C3IT 2009, Academy of Technology, Hooghly, February, 2009, pp. 143- 148 (co – authored with Partha Sarathi Bishnu)
9. Are our Students Prepared for Testing Based Software Development? Proceedings of 22nd IEEE – CS Conference on Software Engineering Education and Training, CSEE&T 2009, Hyderabad, February 2009, pp. 210 – 211 (co – authored with Madhumita S. Neogi and Dr. Rupa Mahanti)
10. A New Approach to K-Medoids Algorithm, Proceedings of HPCA 2009, Banaras Hindu University, Varanasi, February, 2009, pp. 14 (co – authored with Partha Sarathi Bishnu)
11. An Evaluation of Student Preferences during Software Development, Proceedings of National Seminar on Recent Advances on Information Technology (RAIT 2009) Feb.6-7, 2009, ISM, Dhanbad, pp 239-245 (with M. S. Neogi and R. Mahanti).
12. Case Based Estimation Model Using Project Feature Weights, Proceedings of National Seminar on Recent Advances on Information Technology (RAIT 2009) Feb.6-7, 2009, ISM, Dhanbad, pp 242 – 246 (with S. Kumar and E. Rashid)
13. Software Development Patterns of Students: An Experience Accepted for publication in NJSIT, June 2009 Issue (with M. S. Neogi and R. Mahanti).
14. A Process Model for Software Development amongst Students, International Journal of Recent Trends in Engineering (Computer Science), Vol. 1, No. 2, June 2009, pp. 69-74 (with M. S. Neogi and R. Mahanti).
15. A Study on Pair Programming and Early Testing Skills of Students, Accepted (International Journal of Computing & Information Technology (IJCIT), {ISSN: 0974-696X}, July 2009 Issue, "In Press" (with M. S. Neogi and R. Mahanti).
16. Divide and Conquer Based Clustering Using K Means Algorithm In Proceedings CISTM 2009, MDI, Gurgaon (with P. S. Bishnu).
17. Ant-based TCP congestion avoidance mechanism over mobile Ad-Hoc network's In Proceedings CISTM 2009, MDI, Gurgaon (with S. Joardar)
18. Detection of indirect coupling using chaining method In Proceedings CISTM 2009, MDI, Gurgaon (with V. Singh)
19. Fuzzy rule based system for fine prediction in accidents In Proceedings CISTM 2009, MDI, Gurgaon (with J. Pal)

Ms. Amrita Priyam

Paper Published

"An optimal approach towards sequence analysis", International journal of CES, Vol.2, 2009, No.8, 383-390

Mr. Sanjay Kumar

Seminar/Workshop Attended:

"Case Based Estimation model using Project Feature Weights.", The National Seminar on Recent Advances on Information Technology (RAIT-2009) at ISM, Dhanbad. Feb. 6-7, 2009

Conferences Attended:

1. "Estimation of Software Development Effort in University Setting": A Case Study, National Conference on Architecturing future IT Systems (NCAFIS '08) at School of Comp. Sc. & Information Technology, School of Electronics Devi Ahilya University, Indore (M.P.), 17 - 18 Oct. 2008.
2. "A case study on Estimation of Software Development Effort", International Conference on Advanced Computing Technologies (ICACT 2008) at Gokaraju RangaRaju Institute of Engineering & Technology Hyderabad. 26 - 27, Dec. 2008.

Paper Presented:

1. "Case Based Estimation model using Project Feature Weights", At the national Seminar on Recent Advances on Information Technology (RAIT-2009) at ISM, Dhanbad. Feb. 6-7, 2009,
2. "Estimation of Software Development Effort in University Setting": A Case Study, National Conference on Architecturing future IT Systems (NCAFIS '08) at School of Comp. Sc. & Information Technology, School of Electronics Devi Ahilya University, Indore (M.P.), 17 - 18 Oct. 2008.
3. "A case study on Estimation of Software Development Effort", International Conference on Advanced Computing Technologies (ICACT 2008) at Gokaraju RangaRaju Institute of Engineering & Technology Hyderabad. 26 - 27, Dec. 2008.

Publications:

International Journals:

1. "Complexity Metric for Analogy Based Effort Estimation", Journal of Theoretical and Applied Information Technology (JATIT), August 2009 Vol - 3. No. - 8 Issue of JATIT.
2. "Case Based Estimation model using Project Feature Weights", In the proceedings of The National Seminar on Recent Advances on Information Technology (RAIT-2009) at ISM, Dhanbad. Feb. 6-7, 2009.
3. "Estimation of Software Development Effort in University Setting": A Case Study In the proceedings of The National Conference on Architecturing future IT Systems (NCAFIS '08) at School of Comp. Sc. & Information Technology, School of Electronics Devi Ahilya University, Indore (M.P.), 17 - 18 Oct. 2008.
4. "A case study on Estimation of Software Development Effort", In the proceedings of International Conference on Advanced Computing Technologies (ICACT 2008) at Gokaraju RangaRaju Institute of Engineering & Technology Hyderabad. 26 - 27, Dec. 2008.

Ms. Jaya Pal

Seminar/Workshop Attended:

1. "Role of Skills in Effective Classroom Management" at IIT, Roorkee on 23.06.2008 - 04.07.2008
2. "Logic & Application of Logic Part 1 (Continuing Education Programme)" at IIT, Kharagpur on 05.01.2009 - 09.01.2009

Conferences Attended:

1. International Conference on Information Science & Technology Management at Venue :Management Development Institute, Gurgaon on 13.07.2009 – 15.07.2009

Paper Presented:

1. "Fuzzy Rule Based System for Fine Prediction in Accidents", Management Development Institute, Gurgaon, 13.07.2009 – 15.07.2009.

Mr. Kuntal Mukherjee

Paper Published:

1. "Green Computing: A new Promise" National Symposium", Green B.I.T Mesra on Computing at 18.03.08.
2. "A Secure Web service using Hash Virtual Keypad", National Conference on Architecture future IT System, Devi Ahilya University, Indore on 17-18 October 2008
3. "Secure Service oriented Architecture using Hash Virtual keypad", National Conference on Emerging Trend in Information Technology, Gandhi Institute, Gunpur on 01-02 November 08
4. "Development of Grid framework using .NET Technology" Evolving Communication technology and Knowledge Management, Atmiya Institute of Technology and Science, Rajkot on 23.11.08
5. "Object Oriented Implementation of Grid Framework" International Conference on Advanced Computing Technology, Gokaraju Rangaraju Institute of Engineering & Technology Hyderabad, 26-27 December 2008
6. "A Framework for achieving better Load balancing and job scheduling in Grid Framework", International Journal of Information Technology and Knowledge Management, International Journal, volume 2, No 1, pp 199-202, January-june 2009

Mr. Partha Sarathi Bishnu

Seminar/ workshop/Attended:

1. 1st workshop on parallel and distributed computing (WPDC-08), 28th March 2008, Department of Computer Science and Engineering, ISM, Dhanbad.
2. Workshop on an Introduction to Computational Geometry, 26-27th September 2008, BIT Kolkata Campus.

Conference Attended:

1. P.S.Bishnu and V Bhattacharjee, "A New Initialization Method for K-Means Algorithm using Quad Tree", NCM2C, 2008, JNU, New Delhi.
2. P S Bishnu and V Bhattacharjee, " Outlier Detection Technique using Quad Tree", 1st International conference C3IT, pp. 143-148, AOT, Hooghly, West Bengal, 2009.
3. P S Bishnu and V Bhattacharjee, "A New Approach to K Medoids Algorithm", National Conference HPCA 2009, pp. 14, BHU, Varanasi, 2009.
4. P S Bishnu and V Bhattacharjee, "Divide and conquer based clustering using K-Means algorithm", Conference on Information Science, Technology and Management, 2009.

5. P S Bishnu and V Bhattacharjee, "A New Density Based Clustering With Different local densities" ICIT 2009, Bhubaneswar (Communicated).
6. P S Bishnu and V Bhattacharjee, R. Sharma, "A New Shape Based Clustering for Arbitrary Shaped Clusters", ICM2C 2009, JNU, New Delhi, (Communicated).
7. P S Bishnu and V Bhattacharjee, "Gravitational Based Hierarchical Clustering", ICDCN 2010, Kolkata (Communicated).
8. P S Bishnu and V Bhattacharjee, "CTVN: Clustering Technique Using Voronoi Diagram", Conference on Computer Electronics and Electrical November 2009, CEE 2009. (Communicated)

Paper Presented:

1. P.S.Bishnu and V Bhattacharjee, "A New Initialization Method for K-Means Algorithm using Quad Tree", NCM2C, 2008, JNU, New Delhi.
2. P S Bishnu and V Bhattacharjee, "Outlier Detection Technique using Quad Tree", 1st International conference C3IT, pp. 143-148, AOT, Hooghly, West Bengal, 2009.
3. P S Bishnu and V Bhattacharjee, "A New Approach to K Medoids Algorithm", National Conference HPCA 2009, pp. 14, BHU, Varanasi, 2009.
4. P S Bishnu and V Bhattacharjee, "Divide and conquer based clustering using K-Means algorithm", Conference on Information Science, Technology and Management, 2009.

Mr. Umesh Prasad

Seminar/ Workshop Attended:

1. "Recent trends in Energy Management", Proceedings of Workshop on Implementation of Energy Efficiency Act 2001 in the State of Bihar, BIT, Mesra (Patna Campus), pp 12-15, February, 2008.
2. "Fuzzified approach for Interchange of Power and Energy in Restructured Power Electric Power Industry", Proceedings Of Workshop On Implementation of Energy Efficiency Act 2001 in the State of Bihar, BIT, Mesra (Patna Campus), pp 43-44, February, 2008.
3. "Automation Control to Electrical Energy Systems", Proceedings of Workshop On Implementation of Energy Efficiency Act 2001 in the State of Bihar, BIT, Mesra (Patna Campus), pp 45-46, February, 2008.
4. Attended All India Council for Technical Education- Indian Society for Technical Education Sponsored Short Term Training Program on Use of Matlab tool boxes for real time Application in Electrical Engineering organized by Department of Electrical & Electronics Engineering, BIT Mesra, June, 2008

Conferences Attended/ Presented:

1. "Non-Convex Ramp Constrained ELD Solution by EP Algorithm", First Indian Conference on Trends in Modern Engineering Systems, IEE (UK), Calcutta Branch, February, 2008.
2. "Integrated Rural Energy Planning – A Case Study" Proceedings of 2nd National Conference on Advances in Energy Conversion Technology, (AECT-2008), MIT, Manipal April, 2008.
3. "FACTS Controllers in Restructured Power Market" Proceedings Of 2nd National Conference on Advances in Energy Conversion Technology, (AECT-2008), MIT, Manipal April, 2008.
4. "Typological Audit for Energy Retrofitting of Educational Building: An overview" Proceedings of International conference on Energy Engineering & Eco Balance (ICEEE-09), MITR, Pune, pp 16-18, February, 2009. Paper no. 17 and Page no 36

Mr. Shamama Anwar

Paper Published:

1. K. S. Patnaik, S. Anwar. "Q Learning in context of Approximation Spaces". International Journal of Contemporary Engineering Sciences, Vol 1, 2008, no. 1, 41 – 49.
2. K. S. Patnaik, J. F. Peters and S. Anwar. "Influence of Temperature on Swarm bots that learn". Cybernetics and Systems Journal, Taylor & Francis publication, issue 39 – 5, 2008.
3. S. Anwar, K. S. Patnaik, "Actor Critic Learning: A Near Set Approach", published in the Rough Sets and current Trends in Computing (RSCTC), 2008, Lecture Notes in Computer Science (LNCS), LNAI.5306, pp. 252 – 261, Springer – Verlag Berlin.
4. Priyam, B. M. Karan, G. Sahoo, S. Anwar, "An Optimal Approach towards Sequence Analysis", International Journal of Contemporary Engineering Sciences, Vol 2, 2009, no. 383 - 390.

NOIDA



Having felt the urgent need of a centre for diversified and advanced educational research, consultancy and training of human resources in IT and Management technology in the Northern Zone, BIT, Mesra in the year 1998, established one of its extension centers at NOIDA. This is in advantageous position compared to other extension centres of BIT in terms of its location -near capital region and gateways to many IT companies at Greater NOIDA, Gurgaon and Delhi besides NOIDA itself. The curricula of all the credit based flexible programmes are carefully reviewed, updated, upgraded, diversified and are in pace with the needs of the industrial scenario of

this country, with the help of BIT main campus. Starting with its humble beginning with a few students in BCA course, the centre is now imparting quality education to more than 1000 students through various academic programmes, both graduate and post-graduate, in Management, Computer Science and Animation & Multimedia. The campus registers scholars for Ph. D. programmes in Management & Computer Science. While the centre has a strong core faculty in all the related subjects, it has the location advantage to engage guest faculty from the Industry and other academic institutions for specialized lectures. Its placement cell is very active in getting the students placed with the Industry.



Infrastructure Added:

1. Apple Work station in Animation & Multimedia Department: Animation and Multimedia Department, BIT NOIDA has bought a new Editing and Compositing suite of Apple with a 23" flat monitor. This high – end system will help students to get hands on training of "Final Cut Pro" and "Shake", two very popular high -end software for editing and compositing.
2. Cyberoam installed for the Internet Security & Monitoring and Video-conferencing. VPN (Virtual Private Network) 512 KBPS MPLS is installed for video conferencing. It offers secure, encrypted tunnels, making an enterprises network available to its mobile workers anywhere in the world. The VPN appliance is a highly cost- effective solution, delivering high performance with low bandwidth requirements. Bandwidth of Internet facility is increased to 1 MBPS from 512 KBPS.

Programmes Offered:

1. Bachelor of Business Administration – BBA – 3years – 6 semesters
2. Bachelor of Computer Application – BCA – 3years – 6 semesters
3. B.Sc. (Animation & Multimedia) – BAM – 3years – 6 semesters
4. Masters in Computer Application – MCA – 3years – 6 semesters
5. Masters in Business Administration – MBA – 2years – 4 semesters

Additional Programme Started:

BIT Extension Centre NOIDA has started three new courses i.e., one graduate level course and two Post Graduate level courses.

Programme	Description
BBA (Business Economics)	Graduate level, Full Time
M.Sc. (Animation & Multimedia)	PG Level, Full Time
M.Tech (Computer Science)	PG Level, Part Time

Seminar / Conferences / Short Term Courses Attended by the Faculty:

Name of the Faculty Member(s)	Name of Conference Seminar / Workshop attended	Venue	Duration	Whether paper presented	Name of the Paper
Dr. S.L. Gupta	Global Marketing Conference 2008	Shanghai-China	20.03.08 to 23.03.08	Yes	Retail Marketing Strategies, Issues, Challenges in India (A case study of Indian Market)
Dr. S.L. Gupta	AIMS: International Conference on Management	IBA, Greater NOIDA	Dec 28 – 31, 2008	Yes	"Metamorphosis of Retail Industry in India"
Dr. B.K. Jha	Annual Conference of Consultancy Development Centre	CDC, New Delhi	15-16, Jan, 2008	No	NA
Ms. Vandna Sharma	International Conference on Social Sciences	Turkey	Aug 21-24, 2008	Yes	A study on Implications of cultural driven knowledge Management on Employee Satisfaction – in Indian Telecom Sector.
Mrs. Meenakshi Sharma, Lecturer	International Conference on Retail Marketing	BVMIR, New Delhi	7-8 th March, 2008	Yes	FDI in Indian Retail Scenario Impact and Implications.
Mr. Arun Mittal, Lecturer	Banking: Yesterday, Today, Tomorrow	CDLU, Sirsa	8 th March 2008	Yes	Banking in 21 st Century, A Study of Marketing innovations
Mr. Arun Mittal, Lecturer	BRIC: A comparative study	SAS Instt. of Tech, Mohali		Yes	BPO Industry in India & China a comparative study
Ms. Harpreet Charanjit, Ms. Preety Bajaj, Mr. C.S. Suryanarayana, Mr. RayeesAhmad	FDP	BIT, Mesra, Ranchi	Aug 25 - 29' 2008	NA	NA

Name of the Faculty Member(s)	Name of Conference Seminar / Workshop attended	Venue	Duration	Whether paper presented	Name of the Paper
Ms. Harpreet Charanjit	Workshop on "Case Writing and Method of Teaching"	IIM, Ahemadabad	April 28-30, 2008	NA	NA
Mr. K.B. Singh, Lecturer	FDP on Research Methodology	IIM Campus, Indore	6 th -10 th Feb,2008	NO	NA
Dr(Mrs.)Ila Sahay, Sr. Lecturer	Conference on Challenges and Applications of Mathematical Modeling Techniques in Building Science and Technologies	IIT, Roorkee	7 th - 8 th Feb' 2008	Yes	Applications of Applied Mathematical Modeling Techniques
Mrs. Shruti Kohli, Lecturer	International Conference of Decision Science and Tech. For Globalisation	IMT, Ghaziabad	2 nd – 4 th Jan' 2008	Yes	Developing User acceptability Model of Search Engine
Mr. C.S. Suryanarayana, Lecturer, Mr. S.P.Singh, Mr. Rayees Ahmad, Mrs. Vibha Kaw, Mrs. Soma Sircar, Mrs. Shruti Kohli	2 nd National Conference on Computing for National Development	BVICAM, New Delhi	8-9 th Feb, 2008	NO	NA
Mr. Aroop Kerketta	National Conference on Animation Industry-Academia Interface	Juhu, Mumbai	21 st -22 nd May, 2008	–	–
Mr. Lalit Mohan Bhatt Mr. Rahul Dora	National Conference on Animation Industry-Academia Interface	NCERT Auditorium,	April 23,2008	-	-
Mr. Arun Mittal	FDP on Advertising : A Generic Spectrum	BHU, Varanasi	15 th – 20 th Dec, 2008	-	-
Dr. G.P. Mishra	National Conference on Finance and Banking (NCFB 2008)	Saint Gits Institute of Management, Kottayam, Kerala	Sep. 8-9, 2008	Yes	" Leadership Styles and Organisational Effectiveness with Knowledge Management acting as a Moderator. A Study of select Private Banks in NCR"

Name of the Faculty Member(s)	Name of Conference Seminar / Workshop attended	Venue	Duration	Whether paper presented	Name of the Paper
Dr. G.P. Mishra	International Conference on "Changing Face of Emerging India and its Impact on the New Global Order"	Abeda Inamdar College, Pune	Dec. 15-17, 2008	Yes	"A Study of the Reasons of Success and Failure of Entrepreneurs with reference to NCR Region"
Mr. Arun Mittal	FDP on Innovative Financing of Projects	Asia Pacific Institute of Management, New Delhi	June 16-27, 2008	-	-
Dr. S.L. Gupta Mr. Hitesh Gupta (Research Scholar)	International Conference on Technology and Business Management (ICTBM 2008)	Al Ghurair University, Dubai	March 29-April 1, 2009	Yes	"B2B Procurement Practice in Indian Subcontinent : Opportunities and Trends (With specific reference to IT Industry)
Prof. (Dr.) S L Gupta Mr. Arun Mittal	International Conference on Leadership and Its role in Preparing the organization for Unprecedented Change	Institute of Productivity and Management, Ghaziabad	23 & 24 May, 2009	Yes	"Role of IT in Changing Business Environment: A Study of Service Delivery Innovations and Promotional Strategies"

PUBLICATIONS:

1. An Exploratory study on influences of internet in B2B in Market Place for IT organization in India, Prof.(Dr.)S.L. Gupta, Prof.(Dr.) B.K. Jha, Journal of Science & Tech. University of Putra, Malaysia.
2. "FDI in Indian Retail Scenario", Ms. Meenakshi Sharma, Communicated to ICFAI University Press
3. "Mobile Banking : Present Status and Future Perspectives", Dr. S.L. Gupta, Mr. Arun Mittal, The Analyst (ICFAI University Press)

Award / Honours Bestowed:

1. Ms. Vandna Sharma, Reader in Department of Management was awarded Silver Medal for study on "SEZs- A perceptual study of Indian citizens on Economic & Political Dimensions" in 61st All India Commerce Association Conference held on 27-29 Dec, 2008, at Nagpur.

Patents:

Monograph on "Retail Management" authored by Dr S.L. Gupta & Ms. Meenakshi Sharma

Students Activities:

"BIT-UTSAV 2009" – The BIT, NOIDA centre organized its Annual Cultural Fest on 21st March & 2nd April, 2009 respectively. BIT-UTSAV is an annual celebration of talent from within the Departments of the institute. This year the theme was "EXUBERANCE" . the event was loaded with talent, creativity and fun. The three day fest had

various events like debate, collage making, T-shirt painting, JAM, song and dance, drama, quiz, skit, antakshari and various other events:

Other information:

Art of Living Workshop

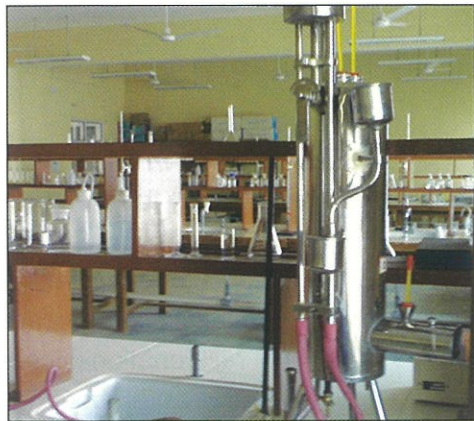
An interactive workshop on Art of Living was organized in BIT NOIDA on 20th November, 2008. by the members of the Art of Living Organisation headed by Sri. Sri Ravi Shankar Ji. The session started with students putting forward their questions about Art of Living. The workshop was a very refreshing experience as the members of Art of Living made the students do a few exercises to make the students aware of win win situations and release of maximum toxins through breathing control. They added that ART OF LIVING is all about rejuvenation of cells by smiling a lot and also that simple breathing exercises can help a person to build a positive aura about him and give him the confidence to succeed in any situation. The students also attended the "BRAHM NAAD", a grand symphony of One thousand Sitarists and Art of Living camp by Sri. Sri Ravi Shankar Ji from 20th -23rd November, 2008 in NOIDA.

Management Department organized an industrial visit to Maruti Suzuki Ltd., Gurgaon for MBA Ist year students on 28th February, 2009. The visit was a great opportunity for the students to gain an insight of how production of car takes place and various other management related activities, and to understand the insight

International Delegation from Netherlands: A delegation of 11 top directors and HODs from selected universities of Netherlands visited and exchanged ideas with Faculties and senior authorities of BIT Mesra Ranchi at its extension centre in NOIDA on 27th of January 2009. The delegates spoke and discussed about challenges and prospects facing education at the university level. The delegation also visited Student's Drawing exhibition organized by the Animation and Multimedia Department, NOIDA centre.

International Visitors: Mr. Dimitry Petrov and Mr. Selyanov Sergy from Russia, visited BIT NOIDA centre on 5th February, 2008 and gave a presentation on animation techniques' uses in films in Russia. BIT students also got the advice and tips from these animation film makers for their projects. A students' work presentation was also given to them.

Deoghar



In 2005, the Government of Jharkhand requested the Institute to establish an Extension Centre at Deoghar. The Institute agreed and submitted a proposal to this effect to the Government of Jharkhand during the same year. The proposal was accepted by the Government of Jharkhand and a Memorandum of Understanding was signed between the Institute and the Government of Jharkhand. As per the provisions of this MoU, the following B.E. programmes of the Institute would be offered at its Deoghar Extension Centre in the disciplines of Civil Engineering, Computer Science, Electronics & Communication Engineering, Electrical & Electronics Engineering, Mechanical Engineering, and Production Engineering.

It was also decided that 50% seats would be for students acquiring eligible qualifications from Institutions located in Jharkhand while the remaining 50% would be for students from the other states of the country. Subsequently, the Government of Jharkhand allotted 25 acres of land located in the villages of Ramchandarpur and Ratanpur at Jasidih, near Deoghar, and agreed to release the requisite funds for establishing the Centre.

Academic activities commenced in October 2007 with admission to the B.E. programmes in Computer Science, Electronics & Communication Engineering and Electrical & Electronics Engineering, with an intake of 50 students in each of these disciplines. Initially, classes were held at the Panchayat Training Institute, Jasidih, about 3 km from Deoghar, and transit hostel accommodation for students was also on the same campus.



From the academic year 2008-09 the intake at BIT Deoghar has been increased to 270 seats - 60 each in Computer Science, Electronics & Communication Engineering, Electrical & Electronics Engineering and Mechanical Engineering and 30 in Production Engineering - and admission has been through AIEEE 2008, and Central Counselling conducted by the Central Counselling Board.

Since 2008 classes have been held on the Centre's own campus between Ratanpur and Ramchandrapur, where the Centre's own buildings are being constructed, and hostel accommodation for existing students has also come up at this site.

The plans for the Deoghar Extension Centre include construction of adequate academic space, hostel accommodation for 800 students, sports facilities, a health centre, and residential facilities for staff of different categories, in the first phase.

Department of Applied Physics

At present Department of Applied Physics is offering the following courses (a) Physics-I (b) Physics – II and (c) Material science. The faculty members carryout research in the following disciplines.

- Nonlinear optics
- Theoretical Conceived Matter Physics
- Plasma Physics

Department of Applied Mathematics

The Department of applied mathematics handles all the mathematics courses offered in different branches of engineering. To meet the requirements of the course, the Department has set up a modern computer centre with latest scientific software such as MATLAB and MATHCAD.

The faculty are actively engaged in research and working on several projects in the Department. The Department itself also regularly organizes seminars.

Department of Applied Chemistry

Department of Applied Chemistry is a support Department for all BE programme. It offers Engineering Chemistry and Environmental Science papers.

At present the Department has water quality and fuel testing facilities. Department proposes to start need based consultancy and technical assistance to medium and small scale industries at and around Deoghar area. It also planning to start Research & Development activities in the following areas.

1. Non-linear Dynamics
2. Biofuels
3. Rain water Harvesting
4. Solid waste Management
5. Mapping of water quality parameters in Deoghar District.

Department of Electrical & Electronics Engineering

The Department of Electrical & Electronics Engineering in BE curriculum was started in 2007 under the collaboration of the Govt. of Jharkhand. It offers 04 years (08 semester) undergraduate BE programme.

The Department maintains high rigor with strong foundation in theory to equip students with skills necessary to grasp and develop new technologies. The quality instruction has always been among the highest priorities in the Department. The faculty members of the Department have always sought to maintain a high quality teaching providing a foundation to students to innovative research.

In near future the laboratories are extending its facilities of electrical equipment testing in and around Deoghar area.

Department of Mechanical Engineering

The Department of Mechanical Engineering was introduced at the institute in 2008. It offers 04 years (8 semesters) undergraduate BE programme.

All academic programmes offered by the Department are modular and structured, which helps students to gradually build on their knowledge and skills.

Main laboratories of the Department include:

1. Engineering mechanics
2. Engineering graphics
3. Auto CAD.

Department of Electronics & Communication Engineering

The Department offers 4-year (8 semesters) undergraduate BE programme, which maintains high rigor with strong foundation in theory to equip students with skills necessary to grasp and develop new technologies.

The quality instruction has always been among the highest priorities in the Department. The faculty members of the Department have always sought to maintain a high quality teaching providing a foundation to students to innovative research.

The Department has several well-equipped laboratories including Electronics lab, Instrumentation lab, Analog and Digital Communication lab, Digital Electronics lab & Microprocessor lab. Students will also be exposed to virtual laboratory simulation packages like Multisim, Commsim, Ultiboard, Cadence and MATLAB. This serves to help the students in gaining practical exposure to these developing technologies. Seminars are presented by the students, which give them an opportunity to develop their communication skills.

Department of Production Engineering

Although production engineering as a branch has been introduced with effect from 2008 session at this campus, it has been imparting training for workshop practice to students of 2007 & 2008 batch right now.

The Departments goal is to impart knowledge in latest manufacturing technology and develop managerial skills.

Programme offered:

B.E. in production engineering –4 years (8 semesters)

Major Equipment and machinery in the Department:

Center Lathe, Capstan Lathe, Tool and cutter Grinder, Wood-working Lathe, Circular, saw Band saw, Welding Transformer, Spot Welding Machine, Vertical and Horizontal Milling Machine, Bench Grinder, Drilling Machine, etc.

Further during the year a CNC trainer, central lathes, one high speed lathe, one tool and cutter grinder, three pillar drill machines, one bench drill, bench grinder and a pillar grinder have added to the fleet of machinery in the workshop.

Faculty: The Department currently has one Workshop superintendent, one Lecturer, one Associate Lecturer, and Five Technicians For Various section of Workshop such as Machine shop, Carpentry shop, Fitting shop, welding shop, etc. and they all are trying to extend their effort towards the development of student of the Department.

Department of Computer Science & Engineering

The Department of Computer science was established along with the inception of the college in the year 2007. Presently only undergraduate programme is offered.

The Department has one spacious and well-designed laboratory, equipped with over 60-networked high-end personal computers with high speed Internet connectivity. There are 02 more laboratories proposed out of which one is under construction. All computers are dual boot system with windows and Linux installed on them.

To give technological exposure to our student experts from the academic institutions and industry are invited from time to time to deliver lectures in the Department.

Library of the Institute

The collection of the Library comprises of resources in the fields of science & technology. The collection includes almost 5000 books. Added another 2500 books and several e-Books and nationals and international journals.

Extra Curricular and Co-Curricular Activities at the Institute

Any of the following – Physical Training & Games/ Creative Arts is compulsory, and comprises half a credit unit each in the first, second, third and fourth Semester of B.E. courses. Grades are assigned at the end of each semester based on performance and/or written and practical tests.

Traditional festivals celebrated with devotion are Saraswati Puja and Vishwakarma Puja. The students also organize "Deepotsav" on the occasion of Deepawali.

Canteen & Stationary Shop

Apart from all the academic facilities the institute have its own Canteen for refreshment of students & staff members and a Stationary Shop to meet the daily needs.

Dispensary-Cum-Health Centre

One Dispensary is located in the campus for students & staff members. And round the clock emergency services are available.

INTERNATIONAL CENTRES

Muscat



The Waljat Colleges of Applied Sciences founded by H.E. Dr. Omar bin Abdul Muniem Al Zawawi in 2001, is a pioneering institution of technical education and research that occupies a pride place among the technical colleges in the Sultanate of Oman.

Located in the upcoming premises of the "Knowledge Oasis" at Rusayl, a suburb of the City of Muscat, the Waljat Colleges of Applied Sciences (WCAS) attracts students from all over Oman and also from neighbouring countries.

All the facilities provided by WCAS are as per the norms laid down in the Criteria for Private Colleges recommended by the Ministry of Higher Education, Sultanate of Oman.

The academic programmes offered at WCAS are aimed at developing a wider concept of technical education that treats education, research, product development and industrial enterprise as a logical sequence for professional accomplishments. To achieve this, various facilities have been established including state-of-art modern laboratories.

Infrastructure Added:

Construction of an additional new teaching block, workshop along with Canteen will be started very soon.

Equipments such as Spectrophotometer, Centrifuge, Gel documentation system and Fermenter have been installed in the Biotech laboratory.

Amplifier and speakers have been installed for teaching English language for the Foundation students.

SMS service has been introduced for sending messages to students pertaining to result, registration, attendance shortage etc.

Flexi module has been implemented to link students data with regard to Registration, Attendance, Result, Fee remittance etc.

10 more computers have been provided in the Computer Lab.

BIT Ranchi has provided us access to E-books & Journals of IEEE and H W Wilson. Moreover, some access of Medical and other related subject books are also available through DELNET.

Programmes Offered:

UG Programme : Bachelor of Business Administration
Bachelor of Computer Application
B.E. Computer Science
B.E. Electronics & Communication
B.E. Biotechnology

PG Programme : Masters in Business Management
Executive Masters in Business Management

Projects Sanctioned:

Management Development Programme for trainees of Reem Batteries and Power Appliances is under consideration.

Projects Completed:

Basics of MATLAB. Sponsored by the Ministry of Education, Sultanate of Oman. The project was conducted by our Electronics & Communication Department from 3rd May 2009 to 6th May 2009. 18 teachers from various Oman Government Schools participated in the training programme. The course included theory and Lab.

Seminar/Conferences/Short Term Courses/Workshop:

1. On 16th January 2008 a one day workshop for working executive was organized on the topic of "Managerial Skills". More than 20 participants from different organization participated in the workshop
2. Prof. D.P. Kothary, Vice Chancellor Vellore University delivered a talk on "Application of Neural Network in Power Mangement on 14th October 2008.
3. Dr. S.K. Srivastava, Former HoD of BHU, Varanasi delivered a talk on "Smart Sensors" on 22.10.2008.
4. Shell Development Oman conducted one-day "Career Awareness Programme" on 9th March 2009.
5. On 9th April 2008 a workshop on "Human Resource Managers – Academia Meet" was held.

Seminar/Conferences/Short Term Courses Attended by the Faculty:

Mr. Mohd. Mohatram, Senior Lecturer – ECE

1. National Conference on IT Keys for Business Intelligence Development at Nizwa College of Higher Education, Sultanate of Oman. May 6-7, 2008
2. International Conference ICHT -2008 Harnessing Technology: Challenges & Opportunities in GCC states, Energy, Environment & natural Resources at Caledonian College of Engineering, Sultanate of Oman. 12-13 October 2008
3. Symposium on Hydrography and Its Role in Maritime Safety and National Development conducted by Royal Navy of Oman, Sultanate of Oman. 15-18 March, 2009

Mr. Sanjay Kumar, Senior Lecturer, Computer Science

1. National Conference IT Keys for Business Intelligence Development", NIZWA College of Applied Sciences, Sultanate of Oman, May 6-7, 2008.

Mr. Santosh Kumar Ray, Senior Lecturer, Computer Science

1. 5th Workshop on semantic Web applications and Perspectives (SWAP2008), Rome, Italy December 15-17, 2008 and submitted paper on Answering systems Performance Evaluation – To construct an effective conceptual query based on Ontologies and WordNet.
2. His paper has been accepted for presentation in a Conference to be held in London in August 2009.

Mrs. Srilekha Goveas, Lecturer, Management

1. International Symposium on supply Chain Management 2008 held at American University, Sharjah, UAE – 25-27 April 2008.

Mrs. Seema Varshney, Lecturer – Management

1. International Symposium on supply Chain Management 2008 held at American University, Sharjah, UAE – 25-27 April 2008.
2. International conference in Udaipur in September 2008 on Global issues on Management.
3. 3rd International Colloquium on tourism & Leisure” held in Bangkok, Thailand, 6-9 July 2009.

Mr. Mithun Shrivastava – Senior Lecturer - Management

1. Oman National Quality Conference, 28-29 October 2008 at Muscat Holiday Inn, Muscat.

Mr. Vikash Sharma – Lecturer Selection Grade – ECE

1. Oman Hydro Symposium – an international symposium on “Hydrography and its role in Maritime Safety and National Development”, conducted by Royal Navy of Oman, Muscat, Sultanate of Oman – 15th – 18th March 2009.

Mrs. Soofi Mubeen – Lecturer – Management Dept.

1. 61st All India Commerce Conference held in Nagpur 27-29 December 2008.

Mrs. Blossom Christina – Lecturer- Management Dept.

1. The Ankara University International Conference on Marketing and Entrepreneurship held in Antalya, Turkey, April 6-9, 2009. Presented paper entitled “women and minority issues in entrepreneurship in Coimbatore Dist. South India.”

Mrs. Indrani Basu, HoD English Department

1. Presented a paper on “Independent Learning – an effective paradigm towards knowledge” at 9th ELT Conference at Sultan Qaboos University, Muscat.

Mr. Jyoti Chandel of Management Department

1. Attended Conference at Temple University USA on Data Envelopment Analysis. 10&11 July 2009

Dr. Sadaf Zehra - Biotechnology Department

1. Attended a conference on Genomics & Global Health at Bio 2009 held in Bangalore, India

Publications:

Dr. A.M. Agrawal, Dean

1. Presented a paper “Issues and Challenges in the core sector growth – Experience from GCC Countries” at a National Seminar at Indian School of Mining at Dhanbad in February 2009. He also chaired a session during the seminar.
2. E-Banking in Oman and its extent of adoption by Banks: The transformation from Conventional Banking in E-Banking.

Mr. Vikash Sharma (Lecturer – Selection Grade- ECE Department)

1. Rough Set Theory: A review of Articles on Applications to Engineering and Management.
2. The Reflective Practitioner Model of Management Development.

Mr. Santosh Kumar Ray (Senior Lecturer, Computer Science Dept)

1. "Formal Languages and Automata Theory" ISBN 81-8281-050- 7, Vrinda Publications(P) Ltd., New Delhi, India 2006.
2. Exploring Mutiple Ontologies and wordNet Framework to Expan Query for Question Answering System, in the proceedings of the First International Conference on Intelligent Human Computer Interaction, IIT Allahabad, January 21-24, 2009.
3. Question Answering Systems Performance Evaluation – To Construct an Effective Conceptual Query Based on Ontologies and WordNet, in proceedings of the 5th workshop on Semantic Web Applications and Perspectives (SWAP2008), Rome, Italy. December 15-17, 2008, CEUR Workshop proceedings, ISSN 1613-0073.

Sanjay Kumar (Senior Lecturer, Computer Science Dept)

1. Noise Removal in images using Level Set Method, Proceedings of the National Conference on " IT Keys for Business Intelligence Development", Nizwa College of Applied Sciences, Sultanate of Oman, May 6-7, 2008.

Mr. Mohammad Mohatram (Senior Lecturer – ECE Dept).

1. "Artificial Neural Network in Economic Load Dispatch: A Distributed System". National Conference on IT Keys for Business Intelligence Development, Nizwa College of Applied Sciences, Sultanate of Oman, May 6-7, 2008.
2. "A new approach to Economic Load Dispatch using an Exponential Cost Function" in the proceedings of International Conference ICHT-2008 on Harnessing Technology: Challenges & Opportunities in GCC States, Energy, Environment & Natural Resources, 12-13 Caledonian College of Engineering, Sultanate of Oman.

Mrs. Srilekha Goveas & Mrs. Seema Varshney

1. Supply Chain in services with reference to tourism. Proceedings of the International Symposium on supply Chain Management 2008 held at American University, Sharjah, UAE – 25-27 April 2008.
2. Enhancing competitiveness of Indian Tourism. Proceeding of the International Conference on Global Issues in Management in Udaipur Sept. 2008.
3. Mrs. Seema Varshney and Mrs. Srilekha Goveas : A conceptual analysis of service quality in Tourism Industry. Tourism Development Journal which is international journal of tourism.

Mr. Niraj Mishra & Sushil Kumar

1. Quality Management in Indian Service Sector " has been accepted for oral presentation at the 10th International Business Research Conference, (16-17 April 2009) Dubai, United Arab Emirates.

Mrs. Soofi Mubeen – Lecturer – Management Dept.

1. Impact of Economic Reforms and Role of Management of Rural Development Institutions on sustainable Rural Econmic Development.

Student Activities:

1. Football Tournament : The College participated in the Azaiba Beach football tournament played during Muscat Festival and MECIT Cup -2009 organized by the Middle East College of Information Technology which started from 14th March 2009.

2. Cricket Tournament: An intra college boys and girls cricket tournament were organized in the month of November and December 2008. Around 70 students participated in this tournament.
3. Badminton tournament was conducted in March 2009.
4. Mother's day celebrations were held on March 2009
5. Blood Donation camp was held in April 2009.
6. Environmental awareness campaign was conducted by the Students. A container has been placed in the campus for plastic waste collection.

Other Informations:

1. First Alumni Association meeting of the College was held on 30.11.2008.
2. The 2nd Graduation Ceremony was held on 22.12.2008. H.E. Dr. Abdullah Mohammed Al Sarmi, the Under Secretary of the Ministry of Higher Education, Sultanate of Oman presided over the function.
3. We have submitted the Quality Audit Portfolio to Oman Accreditation Council. The Panel members visited our College during December 2008.
4. The Annual Day of the College was celebrated on 4th & 5th May 2009. The students actively displayed their talents in various programmes.
5. BIT Academic Audit conducted from 19th to 21st May 2009.
6. H.E. Shri Anil Wadhwa, Ambassador of India to the Sultanate of Oman visited College on 20.05.2009. He donated 150 books in the Library.
7. Placement Cell has very actively organized Campus interviews and students have been able to get employment with Banks and other organizations.

Bahrain



Computer Science & Engineering Department

The Department has well-equipped laboratories with latest versions of different software along with Internet facilities.

Electronics & Communication Department

The Department has good laboratory facilities in the areas of Basic electronics, Microprocessors, Digital Systems Design, Instrumentation and process control, Communications, Circuit Simulation, etc.

Production Engineering Department

The Centre has established the state of art workshop facilities to offer higher education programme in Production Engineering. The facilities include most modern machine shop, fabrication shop, sheet metal shop and a host of other facilities. To cope up with the latest trends in machining, CNC train masters and Electric Discharge machining, facilities have also been installed

Management Department

The Department has fairly good facilities to offer BBA, MBA and B.Com. programmes. All these Departments are currently engaged in conducting the educational programmes of the Institute.

A new group of 187 students reported for studies in different programs during the year 2008. It is heartening to note that our programmes are attracting sizeable number of students from the neighbouring eastern province of the Kingdom of Saudi Arabia from where about 100 students commute to the university on daily basis. The induction programme organised for freshers at the beginning of every academic session is helping the students to align themselves with the university system very quickly. This was evident from the recently concluded quality review. We have plans to make these programs more comprehensive to make students comfortable in the system. BIT, Bahrain, is witnessing accelerated growth and is emerging as one of the most sought after university in the Island.

Additional facilities created during the year:

1. State of the Art Computer Lab and ICT Facilities: In its endeavour to provide high quality education, Birla Institute of Technology, Bahrain, has set up a new state of art computer laboratory and established ICT facilities that would provide opportunities for better teaching and learning. ICT is concerned with the storage, retrieval, manipulation or receipt of digital data.
2. Computer Lab upgraded with New IBM Server
3. Added 5 high speed computers in computer lab - I
4. Rented Two heavy duty photocopy machine in the Library for students service
5. Purchased one heavy duty photocopy machine for Computer Lab –I
6. Facility for e-journal was created in the Library

7. Added more than 4000 books in the Library during this year
8. Two LCD projectors were installed in MBA class rooms.
9. Canteen facility was refurbished to offer better facilities for students

Programmes offered:

The courses offered at Birla Institute of Technology International Centre, Bahrain, are as follows:

1. 4 year Bachelor of Engineering degree programme (B.E.) in Computer Science
2. 3 year Bachelor of Science degree programme (B.Sc.) in Information Technology
3. 2 year Master of Business Administration degree programme (MBA)
4. 3 year Bachelor of Business Administration degree programme (BBA)
5. 3 year Bachelor of Commerce degree programme B.Com. is being offered from academic session 2005-06

Conferences/Seminars:

1. N. Saravanan and D. Shanthi, "The Role of M-Learning in improving the Quality of Higher Education", 2nd International Conference on e-Learning and Quality output, organized by University of Bahrain & Iain e-Learning centre, Kingdom of Bahrain during 28-30 April 2008.
2. Dr. Sujeet Kumar Sharma presented a paper on "Collocation Extraction using various Statistical Techniques" in AlaE sponsored National Conference at NC College of Engineering, Panipat, Haryana, India on September 5-6, 2008.
3. N. Saravanan and D. Shanthi have participated in a technical seminar on Microsoft Visual Studio 2008 organized by Microsoft, Bahrain during April 2008.
4. Dr. Sujeet Kumar Sharma has participated in a summer school on "NLP and Text Mining" at IIT, Kharagpur on 24-29th June 2008.

Publications:

1. D.Shanthi, Dr. G.Sahoo, Dr. N.Saravanan, "Input Feature Selection using Hybrid Neuro-Genetic Approach in the diagnosis of Stroke". International Journal of Computer Science and Network Security, ISSN: 1738-7906, VolB, No.12, pp.99-107, 200B, Souel, Korea.
2. D.Shanthi, Dr. G.Sahoo, Dr. N.Saravanan, "Evolving Connection Weights of Artificial Neural Networks Using Genetic Algorithm with application to the prediction of Stroke Disease". International Journal of Soft Computing, ISSN:1B16-9503, Vol4(2): pp.95-102,2009.
3. N.Saravanan and D.Shanthi, "The Impact of Blended learning to Enhance the Quality of Higher Education," in Higher Education in the Twenty-First Century: Issues and Challenges, Taylor & Francis Group, London, 2008.
4. Dr. Sabah Khan, "Effect of sliding surface temperature on the sliding wear behaviour of Natural Mineral Reinforced IM25 Matrix Alloy composites", Journal of Material Science Vol23, pp.3542.
5. Chakresh Kumar Jain, Anurag Sharma, S.K.Sharma and Yamuna P.Shukla, "Frequency Distribution Analysis in 23S Rrna sequences of Streptococcus and Helocobacter Sp. Using Mutual Information Theory", lecture notes of Computer Science, World Congress on Engineering and Computer Science (WCECS) 200B, pp.21-23, May 200B, San Francisco, USA.

Books and Chapters:

1. Dr. K. R. Pillai, A Text book entitled "Tourism: Employment and labour Market Issues", State Institute of languages, Kerala, 2008.
2. Dr. K. R. Pillai, A chapter entitled "Displacement and replacement of Workers in Agriculture: An Enquiry of Push and Pull Elements" to an edited volume on "Agricultural Labour and livelihood Security of Rural Household" by K.K. Baghchi, Abhijeet Publications, New Delhi, 2008.

Awards / Honours Bestowed:

1. Dr. Asha Prasad has been awarded a fellowship to visit Russia for a research study entitled "Emerging Trends in Industrial Relations in Russia" from Indian Council for Social Science Research (ICSSR) from Government of India.
2. Mrs. Nuzhat Khurshid Qurashi, has been awarded University Gold Medal by MS.Sonia Gandhi on 12th May 2008 for standing 1 st in MBA from Jamia Hamdad University, New Delhi.
3. B.Sc. (IT) Students Honoured: Kingdom of Bahrain celebrated 40th education day on 19th February 2009 and a group of 5 B.Sc. (IT) students of the Birla Institute of Technology were honoured on this occasion by the Hon'ble Minister of Education His Excellency Dr. Majid Al Nuaimi for their outstanding performance

Student Activities:

1. Induction Day was organised on 8th September 2008 for the freshers
2. Induction day for new entrants of B.Sc. (IT) evening programme was organised on 19th October 2008.
3. Career Expo 2008-09: Birla Institute of Technology, Bahrain, participated in the Career Expo 'Horizons-2008' organized by the Indian School, Bahrain on 19th & 20th of December 2008 with a view to provide detailed information about the programs of studies offered in the university. A large number of prospective students and their parents from various schools in the Kingdom and the neighbouring eastern province of the Kingdom of Saudi Arabia visited the BIT counseling desk.
4. Toastmaster Corner: The Birla Institute of Technology Toastmasters' club has produced a motion picture of 15 minutes duration captioned "Entrapped". The central theme deals with the tale revolving around the fascinating yet tragic occurrences in the lives of four individuals. The short movie has been acclaimed as a brave attempt by the students and was shortlisted to be a part of best 10 movies for the Cinergy film festival by the WMC Toastmasters.

Sports 2008-09:

1. The sports events for the academic year 2008-09 were held on 23rd, 25th and 26th February 2009. The cricket tournament was held at the Bapco club grounds while field events and football tournament was held in the West Riffa club grounds. The university organized an exciting array of events to test skills and determination of the students.
2. This year's sports were organized with a difference. In order to bring out the spirit of sportsmanship and large participation of students, competitions were conducted between students of different programmes of the University.

Each program participated and performed as a team. An overall championship trophy was awarded to the programme, based on the accumulated points earned from all events, through each win. The sports events were divided into outdoor events-consisting of cricket, football & track events, and indoor events which consists

of badminton, table tennis, carroms and chess. The University conducted its Indoor Event finals on the 12th of March 2009 at its premises.

Cultural Events Organized:

Freshers' Function 2008

The new members for the year 2008 of BIT-Bahrain Community, were given a warm welcome by the faculty members and seniors of all the courses at Palace In Hotel. The event started with a welcome note by the Andy from BBA, followed by a speech by our director Prof. Ranganath. He spoke about the responsibilities associated with college life and encouraged the students to be sincere with themselves, their families and their studies. The students, both freshers and seniors had a field day with everybody turning up in the theme colour of purple and black. The program was compered by Swati and Andy with DJs Derrick and Shabbir keeping everyone tapping on the lively music scores. The freshers from B.E. gave a Qawwali presentation with lots of once more demand. BBA guys presented songs by their own group. MBA and B.C also gave astounding performances. The program ended with a vote of thanks by Tanushree.

MOSAIC-2009

The Birla Institute of Technology, Bahrain, organized a cultural extravaganza MOSAIC-2009 showcasing the talents of students on 6th May 2009 at The Gulf Air Club. The Chief Guest for the event was the secretary general of Higher education council, Ministry of Education, Kingdom Dr. Alawi Hashim Al Hashimi and the guest of honour was the charge d' affairs, Embassy of the Republic of India Mr. Ajay Kumar. In his welcome address the Director of the Institute, Prof. T.R. Ranganath stressed the importance of such cultural events in shaping the personality of students. He also expressed the hope that MOSIAC-2009 would help the student community to develop better understanding among themselves and bring out the best in them.

The event was also attended by the officials of the Higher Education Council, Ministry of Education, Kingdom of Bahrain. In his message the chief guest Dr. Alawi Hashim Al Hashimi congratulated the students and management of Birla Institute of Technology on the occasion and expressed his satisfaction at the high quality of education being imparted at the university. He also conveyed the best wishes of the honourable Minister of Education Dr. Maji Al Naomi to management and students of the institute on this occasion. Chairman of Board of Directors of Jalal-BIT (Bahrain) W.L.L. Mr. Jalal M. Jalal and members of the board Mr. Sami M. Jalal, Mr. Ahmed Jalal and Mr. Nevin Megchiani attended the function..

Youth Activism (YA)

A group Youth Activism (YA) has been formed at the Birla Institute of Technology, Bahrain. Youth activism refers to today's youth, who have come together with the objective of helping those underprivileged who are not as equally blessed as many of us. The purpose of YA is to raise funds for fighting different causes related to children, like poverty, child labor etc. The objective of YA is to introduce a sense of social service among today's youth. The funds raised through these activities would be donated to organizations such as UNICEF, CRY etc. or would be given personally during visits to orphanages or to institutions working for children welfare.

Any other information:

University Quality Review of Birla Institute of Technology, Bahrain

Higher Education Review Unit (HERU) of Quality Assurance Authority for Education and Training (QAAET) carried out the quality review of the Birla Institute of Technology, Kingdom of Bahrain from

30th November 2008 to 3rd December 2008. The external review panel was led by Prof. Colleen Liston, Adjunct Professor, Curtin University, Australia, Prof. H.J. De Jager, Executive Dean of Faculty of Engineering, Nelson Mandela Metropolitan University, South Africa, Prof. Abdulla Al-Musallam, Secretary General of the National Commission for Academic Accreditation & Assessment, Saudi Arabia, Dr. Dolina Dowling, Deputy CEO of QAAET, Dr. Wafa Al-Mansoori, Quality Review Director and Dr. Tariq Al Sindi, Quality Review Director, HERU, (QAAET), Kingdom of Bahrain. The review was carried out on the basis of 25 indicators under 8 themes covering governance academic standards, quality assurance and enhancement, quality of teaching and learning, student support, human resources, infrastructure, research and community engagement.

The review was carried out through evidences and interviews with the Director, Vice Chancellor Emeritus, Members of the Board of Directors, Deans, Faculty Members, students, alumni, administrative staff and employers

The final report is published in the website of QAAET, Bahrain (www.qaa.bh/reviewreports.aspx). The conclusion of the report is quoted below:

"In conclusion, the Panel considers BIT-Bahrain to be a well-managed Institution. The Panel was impressed by the enthusiasm loyalty and pride in the Institution that is displayed by staff and students. The leadership of the Institution is strong and inspirational. BIT-Bahrain has taken principled stands in asserting the primacy of academic objectives over business matters. The commitment to having a quality higher education environment and programs is also evident.

The quality management system needs to be developed in order to ensure that improvements identified in different forms of evaluations are implemented and that this is undertaken in a systematic way. This is necessary to build on the quality foundations already put in place by the Institution. If these matters are addressed, BIT-Bahrain will be well-placed to achieve its mission and strategic goals and thereby will be able to make a positive contribution to the social and economic development of the Kingdom of Bahrain"

Vice Chancellor Emeritus Visits BIT-Bahrain:

The Vice-Chancellor Emeritus Dr. H.C. Pande along with the Chairman of the Board of Directors of Jalal-BIT (Bahrain) W.L.L., Mr. Jalal M. Jalal, Members of the Board Mr. Sami M. Jalal and Mr. Nevin Megchiani, First Secretary in Indian Embassy Mr. Ajay Kumar and the Provost of BIT, Bahrain Prof. T.R. Ranganath had an audience with His Highness the Crown Prince Shaikh Salman Bin Hamad Al Khalifa On 1 st December 2008. During the audience, Dr. Pande explained the activities and future plans of BIT-Bahrain in the Island to the Crown prince and thanked His Highness for his help and encouragement. The Crown Prince expressed his deep appreciation of quality of education being delivered by the Birla Institute of Technology in the kingdom and wished the university all success. On 2nd December 2008, Dr. Pande met Dr. Alawi Hashim Al Hashimi, Secretary General of Higher Education Council, Ministry of Education, Kingdom of Bahrain and discussed matters concerning mutual interests. Members of the Board of Directors, Mr. Sami M. Jalal and Mr. Nevin Megchiani, and the Provost of the university Prof. IR. Ranganath were also present. He also addressed the faculty and staff members and congratulated them on the excellent work being done in BIT-Bahrain.

RAS Al Khaimah, UAE

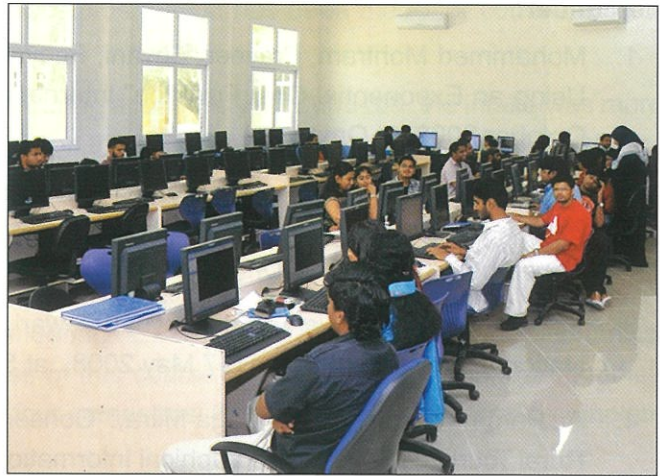


BIT International Center at Ras Al Khaimah started its operation from September 2005, where we are imparting undergraduate programs in Electronics & Communication, Electrical & Electronics, Computer Engineering, Architecture, Management, Commerce and a six - year integrated program in Engineering after ten years of schooling. Apart from this, two years of MBA and EMBA programs are also conducted by BIT IC. MBA is a regular day-time program, while EMBA is a week-end program.

Infrastructure added:

As per the law of the country the center is not allowed to own any property on permanent basis. Thus it is operating

based on the agreement & License of "Royal College of Applied Science and Technology" in Free Trade Zone. It has started operating in a new Campus in Al Dhait Ras Al Khaimah, since 15th March, 2009. However, during this year about 1200 books of various disciplines are added to our library making the total books available to about 8,500. Also, the number of magazines in the Library, both national and international, has increased to 54. We have added 50 computers this year to have a total of 190 computers in the computer lab. On the electronics, electrical and mechanical lab side, equipments valuing AED 4,82,963, (Eq. Rs. 63,35,500) have been added during this academic year.



Programmes offered:

Total nine UG courses and two PG courses have been conducted in this Center during 2008-09, which are as follows:

a. UG Programmes

1. Bachelor of Architecture (B Arch)
2. Bachelor of Business Administration (BBA)
3. Bachelor of Business Management (BBM)
4. Bachelor of Engineering (BE) in ECE
5. Bachelor of Engineering (BE) in EEE
6. Bachelor of Engineering (BE) in CSE
7. Integrated Engineering (IE) in EE
8. Integrated Engineering (IE) in CE
9. Bachelor of Commerce (B Com)

MAURITIUS

INTRODUCTION:

BIT International Centre, Mauritius was established in 2007 to offer BIT programmes in Mauritius. The approval for MBA, MCA, BBA, BCA and EMBA programmes was obtained and the operations of the Centre started in June 2008 in the rented premises at 4, Glaieul Avenue, Quatre Bornes. The Centre also leased 20 Arpents of land at a strategic location on the Airport to Port Louis Motorway near Rose Belle Sugar Estate to build state of the art Campus having all the modern facilities.



The Centre follows the policy of admitting the students during the Monsoon and Spring Semester. In September 2008 (Monsoon Semester), BCA (Full Time) and EMBA (Part Time) programmes started and the process for approval of B. Engg. (Computer Science) was initiated. The total strength of students during Monsoon 2008 Semester was 7. The second batch admissions were made during February/ March 2009. The admissions were made to B. Engg (Computer Science) Full Time, BBA Part Time, BCA Part Time and EMBA Part Time programmes. During September March 2009, 29 students were admitted taking the total strength to 35 (one student withdrew from BCA 2nd semester).

Infrastructure Added:

- | | | |
|-------------------------------|---|--|
| 1. Books | : | 572 Volumes |
| 2. Personal Computers | : | 40 HP Tower type PCs with 17" flat screen Monitors |
| 3. Electronic Slide Projector | : | One |
| 4. Chairs | : | 150 |
| 5. Tables | : | 25 |
| 6. White Boards | : | 05 |
| 7. Book Shelves | : | 03 |
| 8. Soft Wares | : | Linux; AutoCAD; Maya; Photoshop; Unix; 3D- Max 2009 and 2010 |

Programme offered:

1. BBA Full Time and Part Time
2. BCA Full Time and Part Time
3. MBA Full Time
4. MCA Full Time
5. EMBA Part Time
6. B. ENGG. (CS)

Publications (International Journal/ Proceeding, National Journal / Proceeding)

Monograph on 'Development of an Intelligent Recommender System for E-Guided Tourism' by Soumya Banerjee (Reader, Department of Computer Science) and Dangyach G.S. Published by VDM Verlag Dr. Muller Akteingesellschaft & Co. KG

Mo U: Memorandum of understanding was executed between BIT Mesra and BIT Project International Ltd. (Company incorporated to run the International Centre, Mauritius) to run the academic programmes offered by the Centre.

University Polytechnic



In its pursuit for growth and excellence, University Polytechnic, this year submitted two major projects to the Department of Welfare, Government of Jharkhand – first, to introduce a course on Diploma in Electrical Engineering, and another one, to develop an in-house automobile training-cum-vehicle maintenance centre for a thorough hands-on training of Automobile Engineering students of the institute during their course of study. Both the projects are expected to be completed in 2009-2010.

Admission process for Diploma and Medical Lab Technology courses for 2008 batch was completed and classes commenced as per schedule in July 2008. The cut-off marks for Diploma course for General and OBC category was as high as 94% (aggregate of Mathematics and Science), and those for SC and ST categories were 75% and 75.6% (aggregate) respectively. The cut-off marks for BMLT course was 57.33% (PCM) and 57.66% (PCB) for ST and 48.33% (PCM) and 54.33% (PCB) for SC category.



Polytechnic organized its annual sports on 16th and 17th Feb 2009, on this day it was first inaugurated by the institutes' Late Vice Chancellor Dr. S. K. Mukherjee last year, to commemorate his memories. Dr. P.K. Barhai, Vice Chancellor, BIT Mesra, was the Chief Guest at the inaugural ceremony, where as, Deputy Director, Welfare Department, Mr. Shatrughan Bhagat was Chief Guest and Sri N. C. Agarwal, noted industrialist of Jharkhand was the Guest of Honour at the closing ceremony. Team championship Trophy, donated by Sri N.C. Agrawal, was given, for the first time, to the overall winner of the events.

For the 2nd consecutive year, a practical workshop on "Know your car Inside Out" was organized by the Automobile Branch of University Polytechnic in collaboration with Training & Placement Cell of BIT for the 5th Semester Mechanical and Production Engineering students of BIT.

Programmes Offered:

UG Courses

1. Diploma in Technology (DIT)
 - Diploma in Automobile Engineering
 - Diploma in Computer Science
 - Diploma in Electronics Engineering
 - Diploma in Manufacturing Technology
2. B.Sc. in Medical Lab Technology (BMLT)

Training and Placement:

Industrial Visits

Course	Branch	Organization visited
Diploma in Technology	Electronics Engineering	Ranchi Doordarshan Kendra, Ranchi
	Manufacturing Technology	Usha Martin Company Ltd., Tatisilvai, Ranchi
	Computer Science	MECON, Ranchi
	Automobile Engineering	Premson's Motor Udyog Pvt. Ltd., Ranchi

Placement Details

Premson's Motor Udyog Pvt. Ltd selected automobile Branch student Yashwant Narayan Kaushal.

Seminars/Conferences/Short-Term Courses Conducted by the Department:

The following Short-term Training Programs (each of 2 weeks duration) were conducted by the Department in December 2008:

Title	Target Group	Organized by	Faculty and Lab Support
PC Maintenance & Networking	External students	Computer Branch	Lectures: Mr. Niraj Kumar. Lab Support: Mr. Rishikesh Mahto
Installation, Configuration & Administration of Windows XP	Internal Students (Computer Engg. Branch)	Computer Branch	Lectures: Mr. Niraj Kumar. Lab Support: Mr. Rishikesh Mahto
Hands on Practical Electronics	External students pursuing or completed B.Sc./BE (Electronics)	Electronics Branch	Lab Support: Mr. Sabir Hussain, Mr. Dhananjay Mahto and Mr. Kamal Mahto.

Seminars/Conferences/Short-Term Courses Attended by the Faculty Members:

1. Mrs. Sumana Kumari presented a paper on "Printed Monopole Antenna for Wireless Devices" in the International Conference on "Recent Advances in Microwave Theory and Applications" organized by the IEEE, Jaipur, from 21st to 24th November 2008.
2. Mrs. Meena Singh presented a technical paper on "Mathematical Modelling of Electronic Devices and their Integration" in the National Seminar on Information Technology (RAIT, 2009) held during 06-07 February 2009.
3. Mrs. Meena Singh presented a technical paper entitled "Nanotechnology" in a national seminar on "Advances in Material Technology" (NSAMT, 2009) at NIFFT, Ranchi held from 05-06 March 2009.
4. Mr. T. K. Parashar presented a paper on "Modeling of a Infrared Photo detector for Carbon Mono Oxide Monitoring", T.K.Parashar and Dr. R.K.Lal, NESDEC²-2008.at BIT Mesra (Deptt. of Electronics and Communication Engg.):
5. Mrs. Meena Singh attended an AICTE sponsored faculty development programme on "Design and Implementation of VLSI DSP Systems" between 22 Dec 2008 to 02 Jan 2009 organized by HBTI Kanpur.
6. Mr. T. K. Parashar attended a workshop on "Effective Teaching", organized by B.I.T. Mesra, 05-09 August 2008.

7. Mr. T. K. Parashar attended a workshop on "Advanced Optoelectronic Materials and Devices", organized by CRME, BHU, Varanasi, 27-29 December-2007.

Books:

1. Mrs. Meena Singh authored a book titled "Digital Systems" currently under publication by Prentice Hall of India, New Delhi.

Qualification Enhancement:

1. Mr. Manish Oraon has completed MBA in Marketing Management from IGNOU.

Infrastructure Added:

Computer Lab

Following equipments were purchased for the Computer Lab:

Voltas split AC

1. 7.5 KVA Online UPS

Automobile Workshop

1. Following equipments were purchased for the automobile workshop:
2. Car washing machine (Make: ATS ELGI, 3HP, 3 Phase twin air base mounted unit, Fab No. 23573/07)
3. Hand-operated grease pump (Make: ATS ELGI, Fab No. 97595/05)
4. Wall mounted tyre inflator (Make: ATS ELGI, Model WMTI, Fab No. FHCEBC006)
5. Wheel alignment machine with 8CCD sensor and blue-tooth cordless (Make: ATS ELGI, Fab No. FHDTLBF0019)
6. Wheel balancing machine F90 plus (Fab No. FHLEFD0006)
7. Mig welding machine
8. Spot welder and spot gun with trolley (supplied under the brand name of ELGI)
9. Headlight beam aligner
10. Spark plug tester and cleaner (Make: ATS ELGI, Fab No. HBFAA-6073)
11. Screw auto lift (Make: ATS ELGI, Capacity: 3.2 tonnes, Fab No. FHDLGA0167)
12. Multi-Point Fuel Injection (MPFI) System Tester and Cleaner (Fab No. FHCMAB0015)
13. Workshop crane (Capacity One Tonne, Fab No. 657)
14. Hose reel for Air (Make: ATS ELGI, Fab No. 12828)
15. Tyre changer (Make: ATS ELGI,)
16. Complete set of common tools for modern automobile workshop

Students' Activities:

Sports and Games:

Second Annual Athletics Meet, University Polytechnic, was organized on 16th and 17th January 2009. 168 students from five teams (comprising of students from Automobile Engg., Computer Science, Electronics

Engg., Manufacturing Tech., and BMLT) participated in 27 events. 102 prizes (including 94 individual prizes and 2 group prizes in students events and 6 prizes in staff events) were conferred. Team championship went to Electronics Branch. Mayank Pahan (Computer Science) and Umesh Kumar Ram (BMLT) were joint winners Individual Championship (Men) and Ganga Rani Dangua (Computer Science) won the Individual Championship (Women).

Cultural Activity:

Cultural fest was organized on 31st January 2009 on the occasion of Saraswati Puja. Wide participation of students from all the branches was witnessed.

Mayank Pahan (Computer Science) was given the first prize for dancing. Kumar Buddhiraj (Manufacturing Tech.) stood second for acting. Sonai Layek (Computer Science) and group was bestowed the 3rd prize. The Director, University Polytechnic, conferred all the prizes.

Central Library

Introduction

The Central Library strives to evolve into a model and leading technical university library. The library contributes and supports BIT in building an internationally top ranked academic & research driven institution by establishing a knowledge hub.

The collection comprises of documents in the field of basic science, engineering, pharmacy, management and hotel management. The Library has a separate Internet section consisting of a number of networked terminals for providing recent and most comprehensive access to e-journals and other e-reference resources to the faculty, students and staff under Intranet and Internet environment.

Library Mission

The mission of our central Library is to provide comprehensive information to fulfill the needs of the BIT community and to support the Institute's mission to contribute to society through the pursuit of education, teaching, learning and research at the premier levels of excellence.

Library Vision

In this preferred future, Library make certain that its collections remain forward-looking, diverse in girth and form, unlock to browsing with internationally renowned quality. Through promotion, the Library makes its users aware of the resources available to them, and through innovation, it makes access to these resources easier. To serve potential users, the Library conserves information across all formats and ensures effectual storage and deliverance scheme. The Library's cooperation with expanding circles of associates yields unified access, broadening knowledge, and enhanced services.

Print Books

Total Volumes	:	1, 25,506
Total Titles	:	35,594

Electronics Books

Total Titles	:	2,800
--------------	---	-------

Print Journals/Magazine : 124

Indian	:	84
Foreign	:	22
Magazine	:	18

Electronic Journals : 6,500

CD/ DVD	:	3,100
Bound Volumes	:	18,319
Library home page	:	http://bitmesra.ac.in/library/default.asp

Library Services	:	Reference News clippings New arrivals Reprographic Inter Library Loan Bibliographic services Document Lending Services E Document Delivery Services Referral CD/DVD database search Language Laboratory Off Campus Service
------------------	---	---

Library Working Hours

Monday to Friday	:	08.00 AM to 08.00 PM
Saturday	:	08.00 AM to 03.00 PM
Sunday	:	09.00 Am to 1:00 PM

Issue / Return Timings

Monday through Friday	:	08.15 – 17.00 hrs
Saturday	:	08.15 – 13.00 hrs

Library Membership

The library serves over 7500 members including students, research scholars, faculty, project engineers, and staff.

Description	No. of Books	Period of Loan
Teaching Faculty	08	One Month
Non Teaching Staff	04	One Month
All Under Graduate and Post Graduate students	05	15 Days
All Under Graduate and Post Graduate SC/ST students	10	One Semester
All Under Graduate and Post Graduate OBC student	5	One Semester
Research Scholars	02	One Month
Books from Textbook Section for All Category	1	1 Day

Library Consortium

We are the member for AICTE-INDEST and UGC-INFONET consortium to subscribe online journals

Institutional Membership

- American Library Kolkata
- DELNET, New Delhi

Department wise Books

Central Library: Overview- As on January 2009

Sl. No.	Department	No. of Titles of the Books	Number of Volumes
1	Applied Chemistry	1339	4270
2	Applied Mathematics	1935	8421
3	Applied Mechanics	1430	2350
4	Applied Physics	2482	5920
5	Architecture	708	3732
6	Biotechnology	1099	3714
7	BMI	532	5250
8	Civil engineering	2445	4952
9	Computer Science & Engg	2363	14821
10	Electrical & Electronics Engg.	2104	5925
11	Electronics & Communication Engg	2724	9743
12	Environmental Sc.	524	1650
13	HMCT	923	4820
14	Information Technology	1650	5521
15	Management	2164	7005
16	Mechanical Engg /Production	2563	11059
17	MIS	1230	2320
18	Pharmaceutical Science	2020	6025
19	Polymer Engg	826	3750
20	Production	1358	5671
21	Remote Sensing	853	1850
22	Space Engg.	1072	2179
23	General/ Others	1250	4560
	Total	35594	125508

Department wise Print Journals

List of Subscribed Journals for 2009

Sl. No	Dept	Name	IND / INT	Jr/ Mag
1	Applied Chemistry	Indian Journal of Chemical Technology	IND	Jr.
2	Applied Chemistry	Indian Journal of Chemistry- Section A	IND	Jr.

3	Applied Chemistry	Indian Journal of Chemistry- Section B	IND	Jr.
4	Applied Chemistry	Journal of Chemical Sciences	IND	Jr.
5	Applied Math	Bulletin of Calcutta Mathematical Society	IND	Jr.
6	Applied Math	Proceedings Mathematical Sciences	IND	Jr.
7	Applied Math	Pure and Applied Mathematika Sciences	IND	Jr.
8	Applied Mechanics	Indian Journal of Engineering and Material Sciences	IND	Jr.
9	Applied Physics	Indian Journal of Pure and Applied Physics	IND	Jr.
10	Applied Physics	Indian Journal of Radio and Space Physics	IND	Jr.
11	Applied Physics	Journal of Astrophysics and astronomy	IND	Jr.
12	Applied Physics	Physics Education	IND	Jr.
13	Applied Physics	Pramana- Journal of Physics	IND	Jr.
14	Applied Physics	Resonance- Journal of Science Education	IND	Jr.
15	Architecture	Journal of Landscape	IND	Jr.
16	Biotechnology	Indian Journal of Biochemistry & Biophysics	IND	Jr.
17	Biotechnology	Indian Journal of Biotechnology	IND	Jr.
18	Biotechnology	Journal of Computational Intelligence in Bioinformatics	IND	Jr.
19	Biotechnology	Journal of Genetics	IND	Jr.
20	BMI			
21	BMI	Indian Journal of Nuclear Research	IND	Jr.
22	BMI	Indian Journal of Sleep Medicine	IND	Jr.
23	BMI	Medical Equipment and Automation	IND	Jr.
24	Civil Engg	Geological Society of India	IND	Jr.
25	Civil Engg	Geotechnique	IND	Jr.
26	Civil Engg	Indian Journal of Power & River Valley	IND	Jr.
27	Civil Engg	Journal of Rock Mechanics and Tunneling Technology	IND	Jr.
28	Civil Engg	Steel & Metallurgy	IND	Jr.
29	Comptur Science	Computational Intelligence for Modeling Complex System	IND	Jr
30	Comptur Science	Advances in Computational Sciences and Technology	IND	Jr.
31	Comptur Science	Advances in Fuzzy Mathematics	IND	Jr.
32	Comptur Science	Journal of Wavelet Theory and Application	IND	Jr.
33	Comptur Science	Data Quest	IND	Mag
34	Comptur Science	LINUX for You	IND	Mag
35	Comptur Science	PC Quest	IND	Mag
36	ECE	Advances in Wireless and Mobile Communication	IND	Jr.
37	ECE	Sadhana (Engineering Sciences)	IND	Jr.

38	ECE	Electronic For You	IND	Mag
39	EEE	IETE Journal of Education	IND	Jr.
40	EEE	IETE Journal of Research	IND	Jr.
41	EEE	IETE Journal of Review	IND	Jr.
42	EEE	Industrial Researcher	IND	Jr.
43	EEE	Telecommunication Journal	IND	Jr.
44				
45	EVSE	Journal of Earth System Sciences	IND	Jr.
46	General	Current Sciences	IND	Jr.
47	General	Indian Journal of Intellectual Property Rights	IND	Jr.
48	General	Indian Science abstract	IND	Jr.
49	General	Inside Outside	IND	Jr.
50	General	Journal of Cooperation among University, Research and Industrial Enterprise	IND	Jr.
51	General	Journal of Scientific and Industrial Research	IND	Jr.
52	General	Journal of the Indian Institute of Science	IND	Jr.
53	General	Competition Affairs	IND	Mag
54	General	CSIR News	IND	Mag
55	General	Down to Earth	IND	Mag
56	General	Everyman's Science	IND	Mag
57	General	Science and Culture	IND	Mag
58	HMCT	Hotel and Food Service Review	IND	Jr.
59	HMCT	Clean & Hygiene	IND	Mag
60	HMCT	Express Hospitality	IND	Mag
61	HMCT	Express Travel World	IND	Mag
62	HMCT	Food and Beverage	IND	Mag
63	HMCT	Outlook Traveler	IND	Mag
64	HMCT	Tourism and Wildlife	IND	Mag
65	HMCT	Travel & Leisure	IND	Mag
66	Library	IALIC Bulletin	IND	Jr.
67	Library	SRELS Journal of Information Management	IND	Jr.
68	Management	Indian Journal of Marketing	IND	Jr.
69	Management	Journal of Entrepreneurship Development	IND	Jr.
70	Management	Journal of Marketing and Communications	IND	Jr.
71	Management	Knowledge Management	IND	Jr.

72	Management	Prabandhan: Indian Journal of Management	IND	Jr.
73	Management	Pranjana: The Journal of Management Awareness	IND	Jr.
74	Management	Vikalpa	IND	Jr.
75	Management	Business India	IND	Mag
76	Mechanical Engg	Natural Product Radiance	IND	Jr.
77	MIS	DESIDOC Journal of Library & Information Technology	IND	Jr.
78	MIS	Annals of Library & Information Studies	IND	Jr.
79	MIS	Information Studies	IND	Jr.
80	MIS	Journal of Digital Information Management	IND	Jr.
81	MIS	Journal of Information and Optimization Science	IND	Jr.
82	Pharmacy	Asian Journal of Pharmaceuticals	IND	Jr.
83	Pharmacy	Medicinal Plant	IND	Jr.
84	Pharmacy	Indian Journal of Pharmaceutical Science	IND	Jr.
85	Pharmacy	Indian Journal of Animal Research	IND	Jr.
86	Pharmacy	Indian Journal of Pharmacology	IND	Jr.
87	Pharmacy	Indian Journal of Experimental Biology	IND	Jr.
88	Pharmacy	Indian Journal of Medical Research	IND	Jr.
89	Pharmacy	Indian Journal of Virology	IND	Jr.
90	Pharmacy	Journal of Ecophysiology & Occupational Health	IND	Jr.
91	Pharmacy	Journal of Immunology and Immunopathology	IND	Jr.
92	Pharmacy	Journal of Pharmacy & Pharmacology	IND	Jr.
93	Pharmacy	Journal of Biosciences	IND	Jr.
94	Pharmacy	The Pharma Review	IND	Mag
95	Polymer	Bulletin of Material Sciences	IND	Jr.
96	Polymer	Journal of Material Processing Technology	IND	Jr.
98	Polymer	Journal of Polymer Materials	IND	Jr.
99	Polymer	Polymer Engineering & Science	IND	Jr.
100	Remote Sensing	Journal of Indian Society of Remote Sensing	IND	Jr.
101	Remote Sensing	Journal of the Indian Society of Toxicology	IND	Jr.
102	Space & Rocketry	Defense Science Journal	IND	Jr.
103	Space & Rocketry	Journal of Aircraft	IND	Jr.
104	Space & Rocketry	Journal of Spacecraft & Rockets	IND	Jr.
105	Applied Math	International Journal of Computational and Applied Mathematics	INT	Jr.
106	Applied Math	International Journal of Computational Intelligence Research	INT	Jr.

107	Applied Math	International Journal of Mathematical Modeling	INT	Jr.
108	Applied Mechanics	International Journal of Dynamics and Fluids	INT	Jr.
109	Applied Mechanics	SAE Transaction Vol 117 (Complete Set)	INT	Jr.
110	Applied Phsics	International Journal of Nanotechnology and Applications	INT	Jr.
111	Applied Physics	Optics Letters	INT	Jr.
112	Applied Physics	Solid State Communication	INT	Jr.
113	Architecture	Architectural Record	INT	Jr.
114	Architecture	Architectural Review	INT	Jr.
115	Biotechnology	International Journal of Biotechnology & Biochemistry	INT	Jr.
116	Comptur Science	International Journal of Simulation and Applications	INT	Jr.
117	Comptur Science	International Journal of Systems, Cybernetics and Information	INT	Jr.
118	EVSE	International Journal of Applied Environmental Science	INT	Jr.
119	EVSE	Journal of Environmental Management	INT	Jr.
120	Management	Harvard Business Review	INT	Jr.
121	Mechanical Engg	Combustion & Flame	INT	Jr.
122	Mechanical Engg	Journal of Propulsion & Power	INT	Jr.
123	Mechanical Engg	Journal of Vacuum Sciences & Technology: A & B	INT	Jr.
124	Mechanical Engg	Propellants, Explosives Pyrotechniques	INT	Jr.
125	MIS	COLLNET Journal of Scientometrics and Information Management	INT	Jr.
126	Pharmacy	International Journal of Green Pharmacy	INT	Jr.
127	Remote Sensing	PE & RS, Photogrammetric Engineering & Remote Sensing	INT	Jr.

Full Text Online Journals:

ACM DIGITAL LIBRARY	-	http://portal.acm.org/dl.cfm
ACS (American Chemical Society)	-	http://www.pubs.acs.org
AIP (American Institute of Physics)	-	http://www.aip.org
ASCE (American Society of Civil EngiG.)	-	http://www.asce.org
ASME (American Society of Mechanical Engineers International)	-	http://www.asme.org/pubs/journals
ANNUAL Review	-	http://arjournals.annualreviews.org
ASTROPHYSICS JOURNALS	-	http://www.digitallibrary.ernet.in
BIOMED	-	http://www.biomedicalcentral.com
BLACKWELL SYNERGY	-	http://www.blackwell-synergy.com
CAMBRIDGE UNIVERSITY PRESS	-	http://journals.cambridge.org

Newspapers and Light Reading Material	Ground floor
OPAC (Online catalogue)	Ground floor, First floor and Second floor
Pamphlets Section (Standards, Patents, Reports,	Ground floor
Photocopies, Theses and dissertations)	Ground floor
Photocopying facility for faculty	Ground floor
Reference Section	First floor
Reading Hall	Ground floor and First floor
Text Book	First floor
Technical Processing Section	Ground floor

Library Rules

The Library Card will be issued to a Staff/Student at the beginning of his/her career in the Institute, subject to the rules and regulations of the Library.

The Bar-coded Card should be preserved carefully. Loss of the Card should be reported immediately in writing to the Librarian. Issue of a duplicate card may be considered in case of loss on payment of Rs.25/- for students and Rs. 40/- for Staff members but can not be claimed as a right. The Staff/ Student will be responsible for books found outstanding in the original card even after a duplicate has been issued.

All students may borrow five books from General Stock at a time for Fifteen days and one Text book for over night. All Teaching Staff may borrow eight books from General Stock at a time for one month and one Text book for over night. All Non Teaching Staff may borrow four books from General Stock at a time for one month and one Text book for over night. In addition to books, the teaching Staff may borrow two back volumes of any journal other than Indexing and Abstracting for a period of one week only.

1. The borrower will inspect the books and bring it to the notice of the Counter Assistance if they are damaged before getting them issued; otherwise he/she will be held responsible for the damage at the time of return.
2. Students may also borrow from SC/ST Book Bank on submission of eligibility certificate.
3. Overdue charges will be collected as per rules prevailing in case of delay in return. The current charges are General Stock Books: 1/- per day for the first week and Rs.10/- per day thereafter; Text-book: Rs. 10/- per day.
4. Loss of books/documents should be reported in written to the Librarian immediately. The decision of the Librarian will be final regarding recovery of cost.
5. The Librarian has the discretion to recall any book even before the due date.
6. The books/documents borrowed on the card are not transferable.
7. Only writing materials will be allowed inside the Library. Personal belongings such as loose garments, shawls, umbrellas, brief cases, bags, file covers, etc. are to be left behind at the appropriate place near the entrance to the library.
8. The Staff/Student will consult the Catalogue/OPAC to locate the books on the shelves arranged according to the Call Numbers in the Catalogue. In case of any difficulty the Librarian may be consulted.

9. The Staff/Student will present the Bar coded library card with books at the issue/return counter for charging/discharging.
10. Misuse of library privilege will be regarded as breach of discipline.
11. This card must be used only by the member to whom it is issued.
12. Library card/ Library books lost/found must be reported in writing to the Librarian immediately.
13. No dues Certificate will be issued only when all documents borrowed are returned to the Library. The above regulations may be amended at the discretion of the library.

Library Team

Name	Designation	Ext. No.
Dr. Usha Jha	Dean Academic Infrastructure Library Policy	476
Dr. Vijayakumar M	Library I/C Library Administration	452
Mr. Sameer Kumar Jalal	Asst. Librarian (In-charge, Acquisition)	505
Ms. Tanushree Bhatnagar	Junior Information Officer (In-Charge, Circulation)	2506
Ms. Shamida Lakra	Assistant Librarian (In-Charge, Journal)	
Mr. Debojyoti Nath	Information Scientist (In-Charge E-Library)	507
Mr. Amitab Kumar Mangalam	Library & Information Assistant (In-Charge Technical processing)	

Library Statistics of 2008-09

Total Books Procured:

Title	:	671
Volume	:	2725

Total Journals Procured

Print	:	124
Online	:	6500

Total Number of Membership enrolled	:	1158
Total Number of Books Issued	:	87647
Total Number of Books Returned	:	77910

Library Staff Achievement

New Implementation

Electronic Security Systems Installed

New LibSys Server Purchased

Staff Achievements

Dr. Vijayakumar M

1. Presented the research paper at NACLIS-2009 on 24th June 2009, Colombo-Srilanka
2. Nominated for Steering Network member for Association for Common Wealth Libraries and Information Network
3. Published 4 Research Article in Journals and 1 in conferences.
4. Participated in 3 workshops and 1 conference

Mr. Samir Kumar Jalal

1. Registered for his PhD degree at University of Burdwan, West Bengal.
2. Attended UGC-sponsored Refreshed Course in The University of Burdwan, West Bengal during Nov 08-28, 2008;
3. Published 3 Research Article in Journals and 1 in conferences.

Ms. Tanushree Bhatnagar

1. Registered for her PhD degree at BIT-Mesra.
2. Published 1 Research Article in Journals and 3 in conferences.

Training & Placement Division

The Training & Placement Division has the responsibility of providing the most effective employment support and outstanding career development services to its students community. The activities of this Division are diverse and yet pointed towards its core mission of providing information, guidance, counseling as well as providing opportunities for effective influencing life long career transition among the students.

The Campus Recruitment programme at BIT, Mesra has over the years been most successful not just in terms of generating offers exceeding the number of students on campus but also in terms of development of wide ranging relationship covering almost all sectors of the industry.

A summary of the activities undertaken by the Division during the year 2008-09 is as under:

Campus Recruitment Programme : The Campus Recruitment Programme was conducted in 2 Phases. Phase1 was held in April at the Jaipur Campus where a pooled campus was organized for the 3 centers of NOIDA, Jaipur & Allahabad. The second phase was the Campus Recruitment Programme at the main campus at BIT Mesra and this was followed by a similar programme organized at the Extension Centre at Lalpur for the BCA & BBA students. Campus placement activity was also conducted at the Kolkata campus.

A total of 74 organizations visited for campus recruitment and a total of 1010 offers were generated through this process which encompasses all students of BE, ME, M. Tech., MCA, M.Sc., Pharmacy, Architecture, Management & HMCT. Several students received multiple offers.

Competency Development Programme: In the fourth year of its functioning, this Programme, covering the gamut of soft skills was conducted for the students of the pre final year. This programme, in the form of workshops, was conducted at Patna, Jaipur, NOIDA, Allahabad & Kolkata campuses. Apart from the soft skills workshops, technical workshops were organised both for faculty as well as the students in collaboration with the Industry.

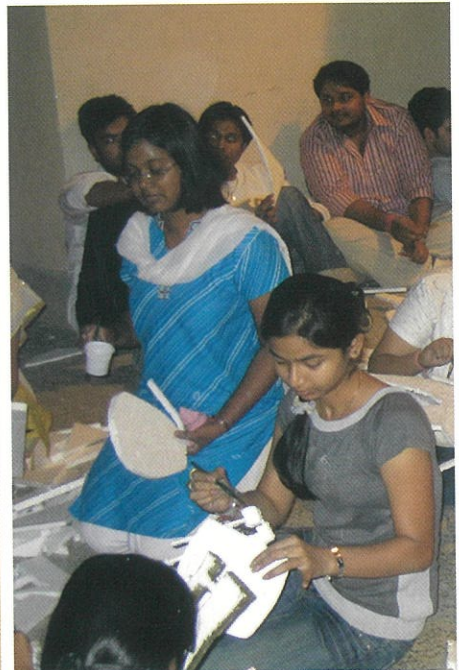
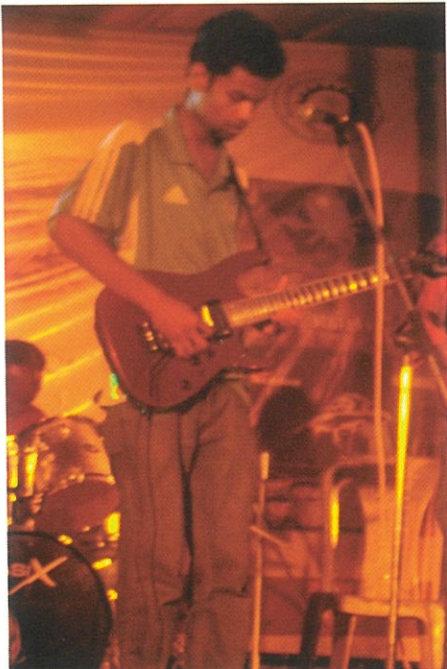
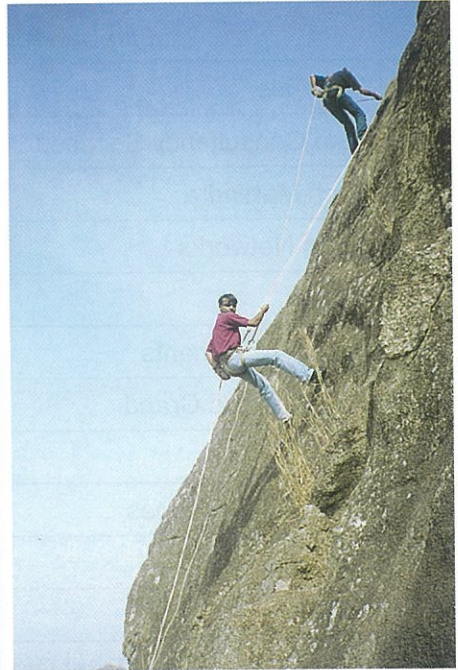
Faculty & Student workshops conducted in collaboration with Industry:

1. Batch Assessment Program for BIT Patna Campus students, Aug. 2008
2. Batch Assessment Program for BIT Allahabad Campus students, Sep. 2008
3. Batch Assessment Program for BIT NOIDA Campus students, Sep. 2008
4. Student Workshop on .NET Architecture by TCS at Kolkata Campus, October 2008
5. Student Workshop on ERP- Oracle Applications by TCS at Kolkata Campus, November 2008
6. A Talk on IT Trends & Challenges organised by Accenture Consulting at Jaipur Campus, Dec 2008.
7. Batch Assessment Program for BIT Kolkata Campus students, Jan. 2009
8. A Faculty Workshop on Six Sigma was organized by TCS at Kolkata Campus, January 2009
9. A 3-day workshop on Soft Skills was organized for students of BIT Patna Campus, Feb. 2009
10. A 2-day workshop on Software Development Life Cycle (SDLC) was organized by Mindtree Consulting, Feb. 2009
11. An Online Assessment Test for batch passing out in 2009 was conducted by Aspiring Minds, March 2009
12. A one month long Soft Skill Development Program was conducted for the pre-final year students during summer vacation, June 2009

Sr.	Company Name (in alphabetic order)	Offers	Sector
32	JSW Steel	2	Metals & Minerals
33	Jusco	8	Engineering
34	Just Holidays	2	Hospitality
35	L & T	15	Engineering
36	L & T ECC	11	Construction
37	LG Electronics	1	Electronics
38	Mahindra & Mahindra	1	Automotive
39	Maruti Udyog	12	Public Sector
40	Microsoft	4	IT Services
41	Midmac	2	Construction
42	Minerva Grand	3	Hospitality
43	Motorola	6	Electronics
44	Mphasis	13	IT Services
45	MRPL	4	Public Sector
46	Nomura	5	Consulting
47	NTPC	22	Public Sector
48	Oracle Corporation	11	IT Services
49	Pfizer	14	Pharma
50	PWC	11	Consulting
51	Samsung India Software Centre (SISC)	8	IT Services
52	Samsung India Software Operation (SISO)	9	IT Services
53	Samtel	1	Engineering
54	Sasken	1	IT Services
55	Satyam	80	IT Services
56	Sayaji Hotels	2	Hospitality
57	Schneider Electric	2	Electrical
58	Soma Enterprises	1	Construction
59	Sysbiz	5	IT Services
60	Tata Consulting Engineers	11	Engineering
61	Tata Motors	12	Automotive
62	Tata Power	5	Power
63	Tata Steel	14	Metals & Minerals

Sr.	Company Name (in alphabetic order)	Offers	Sector
64	Tata Tele	4	Electronics
65	Tata Consultancy Services	264	IT Services
66	Tech Mahindra	23	IT Services
67	Tejas Networks	7	Electronics
68	Telcon	2	Engineering
69	Texas Instruments	1	Electronics
70	The Oberoi's Grand	1	Hospitality
71	TRF	5	Engineering
72	Wipro Technologies	74	IT Services
73	Yahoo	1	IT Services
74	Zensar	14	IT Services
	Total Offers	1010	

Students' Activities



Presently, there are thirty active clubs/societies (including both cultural and technical) in the Institute. To streamline the cultural activities in the campus, new rules for the membership have been framed. New guidelines have been issued regarding the executive body of a club/society. In order to enhance the participation of girl students in the extracurricular activities of the Institute it has been made mandatory that out of three top posts of the executive body of a club/society at least one post should be given to a girl student.

Some important activities of different clubs/societies are as follows:

Dance club

Dance club, an energetic, fun-filled, creative and skillfully innovative club has always been defining its attributes through various events round the year. As one of the more enjoyable and famous club among the youth, had successfully organized Mega-events like Razzmatazz, Dance Night, Fugiya (Open Dancing event) and various informal events throughout the academic year.

The Ecological and Environmental Society

The Ecological and Environmental Society has the twin objectives of keeping the environment clean and spreading awareness about environment related issues. In the spirit of combating the imminent energy crisis, the club conducted myriad campaigns, workshops and events this past academic year.

The events calendar was kicked off by campaigning "International Car free Day" during which all the staff members were requested to not use motor vehicles. A cycle race for the children of staff members was also held. A workshop on how to make bricks using waste materials like paper was conducted. A poster making competition and a nature quiz as part of Bitotsav '09 was also organized.

Music Club

A popular solo-singing competition was organized by the music club in Sept-Oct of 2008. A rock music band consisting of 5 members represented BIT Mesra at Oorja – 2008, the annual cultural rock festival of ISM Dhanbad in October 2008. Eastern and western music songs were performed by the Music Club at Fugiya 2008. Eastern and western music songs were performed by the Music Club at Fugiya 2008. Guitar classes were organized by Nikhil (2K7) on a tri-weekly basis.

News and Publication Society

News and Publication Society is the most active media club of BIT Mesra. NAPS as it is also known as, works as the central coordinating unit for the BITOTSAV'09, the official cultural fest of the institute.

The grand fest of BIT, Mesra "BITOTSAV '09" was a huge success getting the participation of the active, excited and enthusiastic students of the college. The members worked day and night to keep everything in shape and to avoid inconvenience to the participants. It was a 4 days 4 night fest from 19th Feb to 22nd Feb 2009. BITOTSAV is the grand fest of the college because all the clubs of BIT come together during this fest.

LEO Club

LEO club (affiliated to the Lions Clubs International) organized 'Dipotsav'08' during the festival of deepawali in November. This is the only source of entertainment for the students and faculty of BIT who stay back in the institute during this festival of light.

IEEE Student Chapter, BIT Mesra

IEEE Student Chapter, BIT Mesra organised International Unnayan from 4th February-8th February 09. It is a biennial technical Fest organised on an international platform which leads to a culmination of students from BIT and various other colleges from the country and abroad. It had 40+ events and various workshops which included

1. Vedic Mathematics: (Speed Maths) by Mr.Gaurav Tekriwal on quick ways to solving unbelievably large math questions.
2. Arthrobotics: 2 day workshop on how to design a Robot. Students were provided with kits to work with experts from the field of robotics guiding them.
3. Robocode: Simulating a robot and competing against various other simulated robots in the arena

Guest lectures:

1. Dr. Duh Been Lirn (National University of Singapore), lecture on: Artificial Intelligence.
2. Dr. Yajun Ha (National University of Singapore), lecture on: Computing Architecture and design methodologies.
3. R S Sharma: Chairman & Managing Director, National Thermal Power Corporation Limited, lecture on: Power development in India and contribution of his company to the same.
4. Major General Y V Mohan, lecture on: Youth contribution to India's growth.

ANNEXURES

ANNEXURE I

GENERAL COUNCIL

Founder Member

Shri G. P Birla	- Chairman
Shri C. K. Birla	- Founder Member
Shri S. L. Bhattar	- Founder Member
Dr. A. K. Chatterjee	- Founder Member
Shri Sarosh Ghandy	- Founder Member
H. E. Dr. A. R . Kidwai	- Founder Member
Shri G. D. Kothari	- Founder Member
Shri Russi Modi	- Founder Member
Shri D. N. Patodia	- Founder Member
Dr. Karan Singh	- Founder Member
Dr. H. C. Pande	- Life Member
Shri Mohammed Yousif Jalal	- Life Member
H. E. Dr. Omar bin Abdul Muniem	
Al- Zawawi, OSQ, WOi	- Life Member
Shri R. D. Sahay	- Representative of the Ministry of Human Resource Development, Government of Jharkhand
Shri Kota Hari Narayan	- Representative of the University Grants Commission
Shri H. K. Mittal	- Representative of the Department of Science & Technology Government of India
Prof. Raj Pal Singh	- Representative of the All India Council for Technical Education
Dr. R.S. Sharma, I. A.S.	- Representative of the Department of Science & Technology Government of Jharkhand
Shri S. S. Jajodia	- Representative of the Birla Institute of Scientific Research
Dr. P.K. Barhai	- Vice Chancellor, B. I. T., Mesra
Shri H. P. Singhi	- Representative of Corporate Member- M/s National Engineering Industries Ltd.
Dr. P. Ghosh	- Representative of Corporate Member M/s India Press Exchange Ltd.
Shri P. C. Agarwal	- Representative of Corporate Member M/s General Marketing & Manufacturing Co. Ltd.
Dr. H. S. Sagar	- Alumini Member
Shri R. D. Sahay	- Alumini Member

ANNEXURE II

MEMBERS OF THE BOARD OF GOVERNORS

Shri G. P Birla	- Chairman
Shri C. K. Birla	- Vice Chairman
Shri R. D. Sahay	- Nominee of the Government of India Ministry Human Resource Development
Dr. Balagurusamy, E.	- Nominee of the University Grants Commissions
Dr. R. S. Sharma, I.A.S.	- Commissioner – cum- Secretary Deptt. of Science & Technology, Government of Jharkhand
Mrs. Mridula Sinha, I. A.S.	- Commissioner – Cum- Secretary, HRD Government of Jharkhand
Mrs. Sheila Rapaj Kisku, I. A.S.	- Commissioner, South Chattanagpur, Jharkhand
Dr. Anil Wilson	- Nominee of the Chancellor
Shri Deepak Chatterjee	- Nominee of the Hindustan Charit Trust
Dr. H.C. Pande	- Nominee of the Hindustan Charity Trust
Dr. D.N. Patodia	- Nominee of the general Council
Shri G.P. Lal	- Nominee of the general Council
Dr. P. Ghosh	- Nominee of the general Council
Dr. P.K. Barhai	- Vice- Chancellor, B.I.T., Mesra
Dr. N. C. Mahanti	- Teacher's Representative, B.I.T., Mesra
Mrs. Richa N.K. Sharma	- Teacher's Representative, B.I.T., Mesra

ANNEXURE –III

MEMBERS OF THE FINANCE COMMITTEE

Shri G.P. Birla	- Chairman
Dr. K. Gunasekaran	- Nominee of the University Grants Commission
Shri Mithilesh Kumar, I.A.S. (Retd)	- Nominee of the Chancellor
Shri. C.K. Birla	- Vice- Chairman, Nominee of the Board of Governors
Dr. H.C. Pande	- Nominee of the General Council
Shri S.S. Jajodia	- Honorary Treasurer, B.I.T. Mesra
Prof. P.K. Barhai	- Vice- Chancellor, B.I.T., Mesra

ANNEXURE – IV

BUILDING & WORKS COMMITTEE

Chairman

Vice- Chancellor, B.I.T., Mesra	-	Prof. P.K. Barhai
---------------------------------	---	-------------------

Members

Advisor, Planning & Campus Development	-	Prof. P.P. Singh
Treasurer, B.I.T. Mesra	-	Shri S.S. Jajodia
Representative of the Institute Architects	-	M/s Kothari & Associates Kolkata
Representative of the State PWD	-	Nomination Awaited
Head, Department of Civil Engineering	-	Dr. K.V. Krishnamurthy

Member-Secretary

Registrar	-	Col. R. K. Verma (Retd.)
-----------	---	--------------------------

ANNEXURE - V

TECHNICAL COUNCIL

Chairman

Vice-Chancellor B. I. T Mesra (Ex. Office) : Dr. P. K. Barhai

Members

Chancellor's Nomminees : Shri Siddhi Nath Singh
 : Dr. Madhukar S. Bhat
 : Dr. Krishna Kumar
 : Dr. K. K. Srivastav

Director of Higher Education

Government of Jharkhand, (Ex. Offico)

Dr. S. Kumar	Prof. S. P. Bhatnagar	Dr. A. K Chatterjee
Dr. Ashok Mishra	Dr. Anand Kumar Sinha	Prof. B. P. Roy
Dr. J. K. Prasad	Dr. R. C. Prasad	Dr. K.K. Srivastav
Dr. N. C. Mahanthi	Dr. D. Jairath	Prof. S. Sengupta
Dr. K. R. Roychowowdhury		Dr. B. M. Karan
Dr. G. M. Panpalia	Dr. R. K. Narayan	Dr. G. Sahoo
Dr. P. C. Joshi	Dr. (Mrs.) M. Mukherjee	Prof. R.P. Singh
Dr. D. Sasmal	Dr. Mohan Verma	Dr. B. N. Das
Dr. Gopal Pathak	Dr. R. Sukesh Kumar	Dr. A. K. Srivastava
Dr. A. K. Ray	Dr. M. S. Nathawat	Dr. (Mrs.) Ushs Jha
C. M. Prasad	Dr. S. K. Jain	Dr. Ajay Khare
Dr. P.R.P. Verma	Dr. (Mrs.) Nisha Gupta	Dr. D. Pal
Dr. A. S. Vidyarthi	Dr. J. S. Roy	Dr. S. K. Ghorai
Dr. Swapan Konar	Dr. Nilanchal Patel	

Secretary

Registrar : Col. R. K. Verma (Retd.)

ANNEXURE – VI

DEPARTMENTAL BOARD OF STUDY

Department of Applied Chemistry

Chairman – Dr. (Mrs.) Usha Jha, Head of the Department

- Members –
- | | |
|----------------------------|------------------------|
| 1. Dr. P. K. Shrivastava | 2. Dr. R. P. Bhatnagar |
| 3. Dr. R. K. Dey | 4. Mrs. Sumit Mishra |
| 5. Dr. (Mrs.) M. Mukherjee | 6. Dr. Mohan Verma |

Panel of Experts from outside of the Institute

- | | |
|---|--|
| 1. Dr. M. K. Mishra
Professor & Head
IIT, Mumbai | 2. Dr. M. K. Banerjee
Professor & Head
NIT, Jamshedpur |
| 3. Dr. M. N. Mishra
Professor & Head
ISM, Dhanbad | 4. Dr. C. R. Das
Retd. Professor of
Chemistry Environmental Advisor to State Govt. of Orissa |

Center of Environmental Science & Engineering Group

Chairman - Dr. Gopal Pathak Coordinator ESE

- Members -
- | | |
|----------------------------|----------------------|
| 1. Dr. (Mrs.) M. Mukherjee | 2. Dr. (Mrs.) U. Jha |
| 3. Dr. M. S. Nathawat | 4. Mrs. Bindu Lal |

Panel of Experts from outside of the Institute

- | | |
|--|---|
| 1. Dr. Gurdeep Singh
CESE, ISM, Dhanbad | 2. Dr. S. K. Gupta
CESE, IIT, Mumbai |
| 3. Dr. (Mrs.) R. S. Patil
CESE, IIT, Mumbai | 4. Dr. Mukesh Khare
IIT, Delhi |

Department of Biotechnology

Under Graduate Programme

Chairman - Dr. A. S. Vidyarthi, Head of the Department

- Members -
- | | |
|----------------------------------|------------------------|
| 1. Dr. P. Ghosh | 2. Dr. K. Mukhopadhyay |
| 3. Dr. (Ms) Mandira
Mukherjee | 4. Dr. Pratyosh Shukla |
| 5. Dr. D. Sasmal | 6. Mr. G. K. Sharma |
| 7. Dr. V. P. Gupta | |

Post Graduate Programme

Chairman - Dr. A. S. Vidyarthi, Head of the Department

- Members -
- | | |
|------------------------|------------------------|
| 1. Dr. K. Mukhopadhyay | 2. Dr. A. Sachan |
| 3. Dr. S.P. Bhatnagar | 4. Dr. (Mrs.) Usha Jha |
| 5. Dr. R. T. Goswami | |

Panel of Experts from outside of the Institute

- | | |
|--|---|
| 1. Prof T. Ghosh
Emeritus Prof., IIT Delhi | 2. Dr. B. N. Mishra
Co-ordinator, Biotechnology
Inst. of Engg. & Technology
Sitapur Road, Lucknow - 226021 |
| 3. Dr. T. Madhan Mohan
Director
Dept. of Biotechnology, GOI I
CGO Complex, New Delhi. | 4. Dr. Debbrata Das
Dept. of Biotechnology
IT Kharagpur |
| 5. Dr. Z. A. Haider
Dept. of Biotechnology
Birsa Agriculture University
Kanke, Ranchi | 6. Dr. P. Ghosh
Executive Director
BISR, Statue Circle
Jaipur |
| 7. Dr. Ranjana Srivastava
Deputy Director & Head
Gene cloning Laboratory
Central Drug Research Institute
Lucknow – 226001 | 8. Mr. G. K. Sharma
Reliance Life Science
Mumbai-400001 |
| 9. Mr. Rajesh Soni, Director
Genom Biotech Pvt. Ltd.
504, Delphi, Orchard Avenue
Hiranandani Business Park
Powai, Mumbai – 400 076 | |

Department of Pharmacy***The Board of Studies comprises of the following members:***

- | | |
|-----------------------------------|-------------------------------------|
| 1. Dr. D. Sasmal
Chairman | 2. Dr. Roop Khar
Member |
| 3. Dr. Tausif Monif
Member | 4. Prof. S. P. Bhatnagar
Member |
| 5. Prof. C.M. Prasad
Member | 6. Dr. P.R.P. Verma
Member |
| 7. Dr. B.N. Sinha
Member | 8. Dr. S. Samanta
Member |
| 9. Dr. (Mrs.)S.M. Verma
Member | 10. Dr. (Mrs.)M.Mukherjee
Member |
| 11. Dr. (Mrs.)Usha Jha
Member | 12. Dr. Mohan Varma
Member |

Applied Mathematics

Chairman - Dr. N. C. Mohanti, Head of the Department

- Members -
- | | |
|------------------------|-------------------|
| 1. Dr. S. S. Roy | 2. Dr. S. K. Jain |
| 3. Prof. Sukesh Kumara | 4. Prof. G. Sahoo |

Panel of Experts from outside of the Institute

- | | |
|---|---------------------------------------|
| 1. Prof. K. S. Chaudhury,
Jadavpur University, Kolkata | 2. Prof. S. S. Alam
IIT, Kharagpur |
| 3. Prof. K. C. Prasad
Ranchi University, Ranchi | 4. Prof. Satyajit Roy
IIT, Madras |

Department of Applied Mechanics

Chairman - Prof. A. K. Ray, Head of the Department

- Members -
- | | |
|-----------------------|------------------------------|
| 1. Dr. S. Kumar | 2. Prof. K. R. Roy Choudhary |
| 3. Prof. Rampal Singh | 4. Prof. U. S. Prasad |
| 5. Prof. S. Sengupta | |

Panel of Experts from outside of the Institute

- | | |
|--|--|
| 1. Dr. S. Talapatra
B. E. College Shibpur | 2. Dr. B. N. Sreedhar
IIT Kharagpur |
|--|--|

Department of the Applied Physics

Board of Studies for M.Sc. (Applied Physics):

- | | |
|-------------------------------------|---|
| 1. Dr. P. K. Barhai
Chairman | 2. Dr. D. Jairath
Member |
| 3. Dr. N. C. Mohanty
Member | 4. Dr. (Mrs.) Nisha Gupta
Member |
| 5. Dr. A. K. Das
External Member | 6. Prof. H. L. Yadav
External Member |
| 7. Prof. S. Konar
Member | 8. Dr. S. Medhekar
Member |

Department of Civil Engineering

Chairman - Dr. K. V. Krishnamurthy, Professor & Head of the Department

- Members -
- | | |
|----------------------------|---------------------|
| 1. Prof. K. R. Rochoudhary | 2. Dr. Gopal Pathak |
| 3. Dr. Balram Singh | 4. Prof. Arun Kumar |
| 5. Prof. Ashok Mishra | 6. Prof. Ajay Khare |
| 7. Prof. S. Sengupta | |

Panel of Experts from outside of the Institute

- | | |
|--------------------------------------|--|
| 1. Prof. V. Kumar
IT BHU, Varansi | 2. Dr. K. Sudhakar Reddy
IIT, Kharagpur |
|--------------------------------------|--|

Department of Computer Science & Engineering

Panel for Board of Studies

- | | |
|--------------------------------|-------------------------------|
| 1. R. Suresh Kumar
Chairman | 2. Prof. A. Mustafi
Member |
|--------------------------------|-------------------------------|

3. Prof. D.K.Mallick
Member

4. Prof. S.K.Chatterjee
Member

5. Prof. G.Sahoo
Member

6. Prof. Dr. Nisha Gupta
Member

External Experts (Any two)

1. Dr. C.R. Tripathy,
Prof. & Head
Dept. of MCA
NIT, Jamshedpur

2. Dr. Chandan Majumdar
Dept. of Computer Science
Jadavpur University (WB)

3. Dr. S.Bhattacharya
Director
NIT, Durgapur

4. Dr. Rajib Mall
Professor
Dept. of Computer Science
IIT Kharagpur

Department of Electrical & Electronics Engineering

Chairman - Dr. B.M. Karan

Members - 1. Prof. R. C. Prasad

3. Prof. R. K. Narayan

4. Prof. B. P. Roy

5. Dr. B. N. Das

6. Prof. R. C. Jha

7. Dr. T. Ghosh

8. Prof. N. Pathak

9. H. O. D.

10. H. O. D. (Electr. & Comm.)
(Computer Sc. & Engg.)

Panel of Experts from outside of the Institute

1. Dr. T. K. Ghoshal
Jadavpur University, Kolkata

2. Dr. Samiran Choudhary
Jadavpur University, Kolkata

3. Dr. T. K. Basu
IIT, Kharagpur

4. Mr. N. Neogi
GM, RDCIS, Ranchi

Department of Electronics & Communication Engineering

Panel for Board of Studies-

1. Dr. Nisha Gupta
Chairman

2. Dr. S.K Ghorai
Member

3. Dr. S. Pal
Member

4. Dr. Vibha Rani Gupta
Member

5. Dr. S.Konar
Member

6. Dr. R.C Jha
Member

Panel of Expert from outside the institute:

1. Dr. Ajay Chakraborty
Professor and Head
Dept. of Electronics &
Comm. Engg. I.I.T. Kharagpur

2. Dr. Sarat Kumar Patra
Professor and Head
Dept. of Electronics & Comm. Engg
N.I.T, Rourkela- 769008(Orissa)

- | | |
|--|--|
| 3. Dr. G. Panda
Dept. of Electrical Engg
I.I.T.Bhubneshwar
Samantpuri, Nandan Kanan Road
Bhubneshwar- 751013 | 4. Dr V. Kumar
Head, Dept. of Electronics Engg
Indian School Mines University
(ISMU)
Dhanbad- 826004 (Jharkhand) |
| 5. Dr. P. K Goswami
Professor
Dept. of Radio Physics & Electronics
Calcutta University
92, Acharya Prafulla Chandra Road
Kolkata-700009 | |

Department of Mechanical Engineering

Board of Studies:

- | | |
|---|---|
| 1. Head of the Department
Chairman (Ex-officio) \ | 2. Dr. A.K.Chatterjee
Member (Allied Department) |
| 3. Dr. S. Kumar
Member (Allied Department) | 4. Dr. K.K.Srivastava
Member |
| 5. Dr. Arbind Kumar I
Member | 6. Prof. P.K.Choudhary
Member |
| 7. Dr. Rajeev Kumar
Member | 8. Dr. B.N. Prasad
External Member
Dean & Professor in
Mechanical Engineering
N.I.T. Jamshedpur |
| 9. Sri A.P. Mishra
External Member
Larsen & Toubro
Kansbahal, Orissa | |

Department of Management

Board of Studies:

I MBA

1. Dr S K Bose – HOD, Deptt of Management – Chairman (ex-Officio)
2. Dr S Kumar, Professor, deptt of Pdtg Engg- Member
3. Dr U Baul, Professor, Deptt of management – member
4. Dr S Shivani, Associate Professor, deptt of management- Member
5. Mr V Agrawal, Senior Lecturer, deptt of management – Member
6. Dr A S Sarkar, Professor, XLRI Jamshedpur – External Member
7. Dr Hariharan, Sr DyGM MTI, SAIL, Ranchi – External Member

II ME QEM

1. Dr S K Bose – HOD, Deptt of Management – Chairman (ex-Officio)
2. Dr S Kumar, Professor, deptt of Pdt n Engg- Member
3. Dr U Baul, Professor, Deptt of management – member
4. Mr S C Mishra, Associate Professor, deptt of management- Member
5. Dr Anjani Kumar, Prof. Deptt of Production Engineering, NIT Jamshedpur
6. Dr R K Srivastava, Prof. Deptt of Production Engineering, BIT Sindri

Department of Polymer Engineering

Chairman - Dr. (Mrs) M. Mukherjee, Head of the Department

Members - 1. Dr. Usha Jha 2. Dr. S. Kumar
3. Sri S. Guria

Panel of Experts from outside of the Institute

1. Prof. Anup Kumar Ghosh
IIT, Kharagpur
2. Prof. N. Bhatnagar
IIT, Delhi
3. Prof. D. D. Kale
University Dept. of Chemical
Technology, Mumbai

Department of Production Engineering

Members of Board of Studies:

1. Dr. Surender Kumar, Head, Department of Production Engg., BIT, Mesra, Ranchi
2. Dr. Ashok Misra, Department of Mechanical Engg., BIT, Mesra, Ranchi
3. Dr. J.K. Prasad, Department of SER, BIT, Mesra, Ranchi
4. Dr. B.K. Singh, Department of Production Engg., BIT, Mesra, Ranchi
5. Dr. Vinay Sharma, Department of Production Engg., BIT, Mesra, Ranchi

External Members

1. Dr. A.K. Jha, Department of Mechanical Engg.,IT,BHU, Varanasi
2. Dr. Anjani Kumar, Department of Industrial Engg. & Management, NIT, Jamshedpur

Department of Remote Sensing

Chairman - Prof. M. S. Nathawat, Head of the Department

Members - 1. Dr. A. K. Singh 2. Mrs. R. N. K. Sharma
3. Dr. Gopal Pathak 4. Dr. P. K. Barhaji

Panel of Experts from outside of the Institute

1. Dr. J. R. Sharma
CAZIR, Jodhpur
2. Dr. P. L. N. Raju
IIRS, Dehradun
3. Dr. I. V. Murli Krishna
JNT University, Hyderabad
4. Dr. S. M. Ramaswami
Bharathidasan Univ.
Tamilnadu

Department of Hotel Management & Catering Technology

Board of Studies:

Following are the members of Board of Studies: -

- | | |
|--|----------|
| 1. Prof. Sitiesh P Srivastav
Prof. & Head, Dept. of HMCT, BIT Mesra | Chairman |
| 2. Dr. B.K. Chakarvarti
Advisor, Dept. of HMCT, BIT Mesra | Member |
| 3. Prof. S.P.Bhatnagar
Advisor Technical Dev & Training, BIT Mesra | Member |
| 4. Dr. S.K. Bose
Prof. & Head, Dept. Of Management, BIT Mesra | Member |
| 5. Mr. Sanjay Kumar
Sr. Lecturer, Dept. of HMCT, BIT Mesra | Member |
| 6. Prof. Kamal Manektola
Head, School of Hospitality and Tourism | Member |
| 7. Mr. Tarun Dacha
Corporate Chef, Sarovar Park Plaza, New Delhi | Member |
| 8. Prof. Sajal Mukherjee
Dept. of Economics and Tourism | |
| 9. Vinoba Bhave University, Hazaribagh | Member |

Department of Biomedical Instrumentation

Board of Studies

- | | |
|--|----------|
| 1. Dr. B. N. Das, Head, Dept. of BMI | Chairman |
| 2. Dr. B. M. Karan, Head, Dept. of EEE | Member |
| 3. Dr. R. K. Sinha, Reader, Dept. of BMI | Member |
| 4. Dr. S. K. Ghorai, Prof., Dept. of ECE | Member |
| 5. Dr. B. N. Sinha, Prof., Dept. of Pharmacy | Member |
| 6. Dr. D. Pal, Prof., Dept. of ECE | Member |

Panel of Experts from Outside the Institute:

1. Dr. D. N. Tibrewala, Director, Bioscience and Engineering, Jadavpur University, Kolkata
2. Dr. A. K. Ray, Coordinator, School of Biomedical Engineering, IT-BHU, Varanasi
3. Dr. H. P. Narayan, Retd. Professor & Head of R.M.C.H., Ranchi
4. Dr. R. K. Jha, Professor, Department of Medicine, R.I.M.S., Ranchi
5. Dr. Anil Mishra, Sr. Cardiologist & Coordinator of BMI course,
6. B.M. Birla Heart Research Center, Kolkata

ANNEXURE- VII

ADVISORS, DEANS, HEAD OF THE DEPARTMENT / INCHARGE

Vice Chancellor	:	Dr. P. K. Barhai
Treasurer	:	Shri S. S. Jajodia
Registrar	:	Col. R. K. Verma (Retd.)

ADVISORS

Construction	:	Prof. P. P. Singh
Students Projects	:	Dr. S. Kumar
Students Projects	:	Dr. B. M. Karan
International Wireless Research Centre	:	Dr. S. C. Goel
Campus Planning & Development	:	Dr. S. Sengupta
Technology Development & Transfer	:	Prof. S. P. Bhatnagar

DEANS

Admission	:	Dr. D. Jairath
Post – Graduate Studies	:	Dr. Mohan Varma
Under – Graduate Studies	:	Prof. C. M. Prasad
Sponsored & Collaborative Research	:	Dr. P. K. Barhai
Academic Coordination	:	Dr. D. Sasmal
Extension Centre	:	Dr. A. K. Chatterjee
Faculty Development	:	Dr. K. V. Krishnamurthy
Finance	:	Dr. P. C. Joshi
Academic Infrastructure	:	Dr. (Mrs.) Usha Jha
Doctoral Research	:	Dr. Ashok Misra
Development Programme	:	Dr. (Mrs.) M. Mulherjee
Student Welfare (Men)	:	Dr. A. K. Sinha

ASSOCIATE DEANS

Student Welfare (Women)	:	Mrs. S. G. Panpalia
Student Welfare (Men)	:	Dr. R. C. Jha

Department'S HEAD / IN CHARGE

Architecture	:	Dr. Ajay Khare
Applied Chemistry	:	Dr. (Mrs) Usha Jha

Applied Mathematics	:	Dr. N. C. Mahanti
Applied Mechanics	:	Prof. A. K. Ray
Applied Physics	:	Dr. P. K. Barhai
Bio-Medical Instrumentation	:	Dr. B. N. Das
Bio-Technology	:	Dr. A. S. Vidyarthi
Civil Engineering	:	Dr. K. V. Krishnamurthy
Computer Science & Engineering	:	Dr. G. Sahoo
Electronics & Communication Engineering	:	Dr. R. Sukesh Kumar
Electrical & Electronics Engineering	:	Dr. B. M. Karan
Environmental Engineering & Science	:	Dr. Gopal Pathak
Hotel Management & Catering Technology	:	Dr. S. Srivastava
Information Science	:	Dr. N. C. Mahanti
Management	:	Dr. S. K. Bose
Mechanical Engineering	:	Dr. Ashok Mishra
Polymer Sciences Engineering	:	Dr. (Mrs) M. Mukherjee
Production Engineering	:	Dr. S. Kumar
Pharmaceutical Sciences	:	Dr. D. Sasmal
Physical Education & Sports	:	Prof. Atul Anand
Remote Sensing	:	Dr. M. S. Nathawat
Space Engineering & Rocketry	:	Dr. A. K. Chatterjee
Co-ordinator Semester Programme	:	Dr. D. Sasmal
Additional Controller of Examination	:	Dr. S. K. Samal
Additional Registrar (Fin.)	:	Shri O. P. Bhagaria

Additional Registrar

(Career Planning & Development Programme)	:	Shri B. B. Pant
Controller of Examination	:	Dr. S. K. Jain
Chief Accountant	:	Shri G. S. Sharma
Library	:	Dr. Vijay Kumar M
Chief Medical Officer	:	Dr. Arjun Prasad Singh
Cultural Coordinator	:	Dr. Ram Pal Singh

ANNEXURE – VIII

IMPORTANT TELEPHONE NUMBER

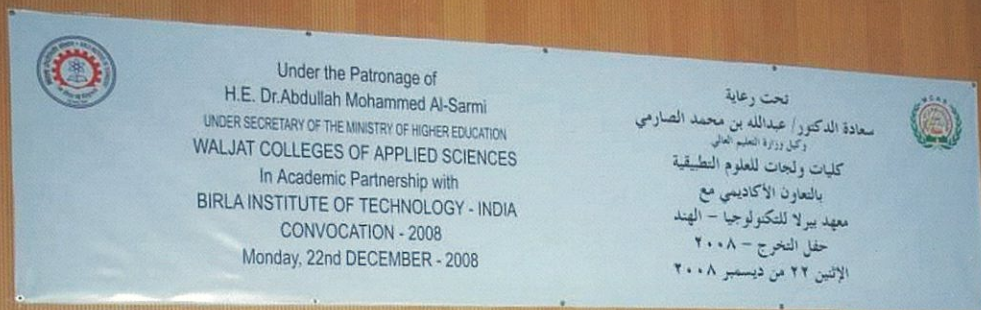
Sl. No.	Name	Department	Phone No.
1.	Dr. P. K. Barhai	Vice Chancellor	2275402, 2275401 (Fax)
2.	Col. R. K. Verma (Retd.)	Registrar	2276052
3.	Dr. Ashok Mishra	Dean Doctoral Res.	2275924
4.	Prof. Sukesh Kumar	Computer Science & Engg.	2276185
5.	Dr. (Mrs.) Nisha Gupta	Electronics & Commu. Engg.	2275750
6.	Dr. S. Kumar	Production Engg.	2275044
7.	Dr. A. K. Chatterjee	Space Engg. & Rocketry	2275983, 2276224
8.	Dr. P. C. Joshi	Dean (Finance)	2276290
9.	Dr. P. K. Barhai	Applied Physics	2275522
10.	Mr. B. B. Pant	Training Placement	2275566
11.	Prof K. V. Krishnamuthy	Civil Engineering	2276502
12.	Prof. A. K. Ray	Applied Mechanics	2276182
13.	Dr. N. C. Mahanti	Applied Mathematics	2276183
14.	Dr. (Mrs). M. Mukherjee	Polymer Engineering	2276053
15.	Dr. M. S. Nathawat	Remote Sensing	2276003
16.	Dr. D. Sasmal	Pharmaceutical Sciences Dean Academic Coordination	2276247 2275872
17.	Prof. C. M. Prasad	Dean, Examination	2275138
18.	Prof. C. M. Prasad	Dean(Under-Graduate)	2275872
19.	Prof K. V. Krishnamuthy	Dean(Faculty Development)	2275983
20.	Mr. D. K. Jain	University Polytechnic	2276008
21.	Mr. G. S. Sharma	Chief Accountant	2275927
22.	Dr. Arjun Pprasad	Chief Medical Officer	2276009
23.	Dr. A. S. Vidyarthi	Biotechnology	2276223, 2276590
24.	Dr. Ajay Khare	Architecture	2275093
25.	Dr. G. Sahoo	IT & MCA	2276185
26.	Dr. D. Jairath	Dean(Admission)	2275868 2276007
27.	Dr. (Mrs.) Usha Jha	Applied Chemistry	2275636
28.	Prof. S. Sengupta	Advisor	2275051

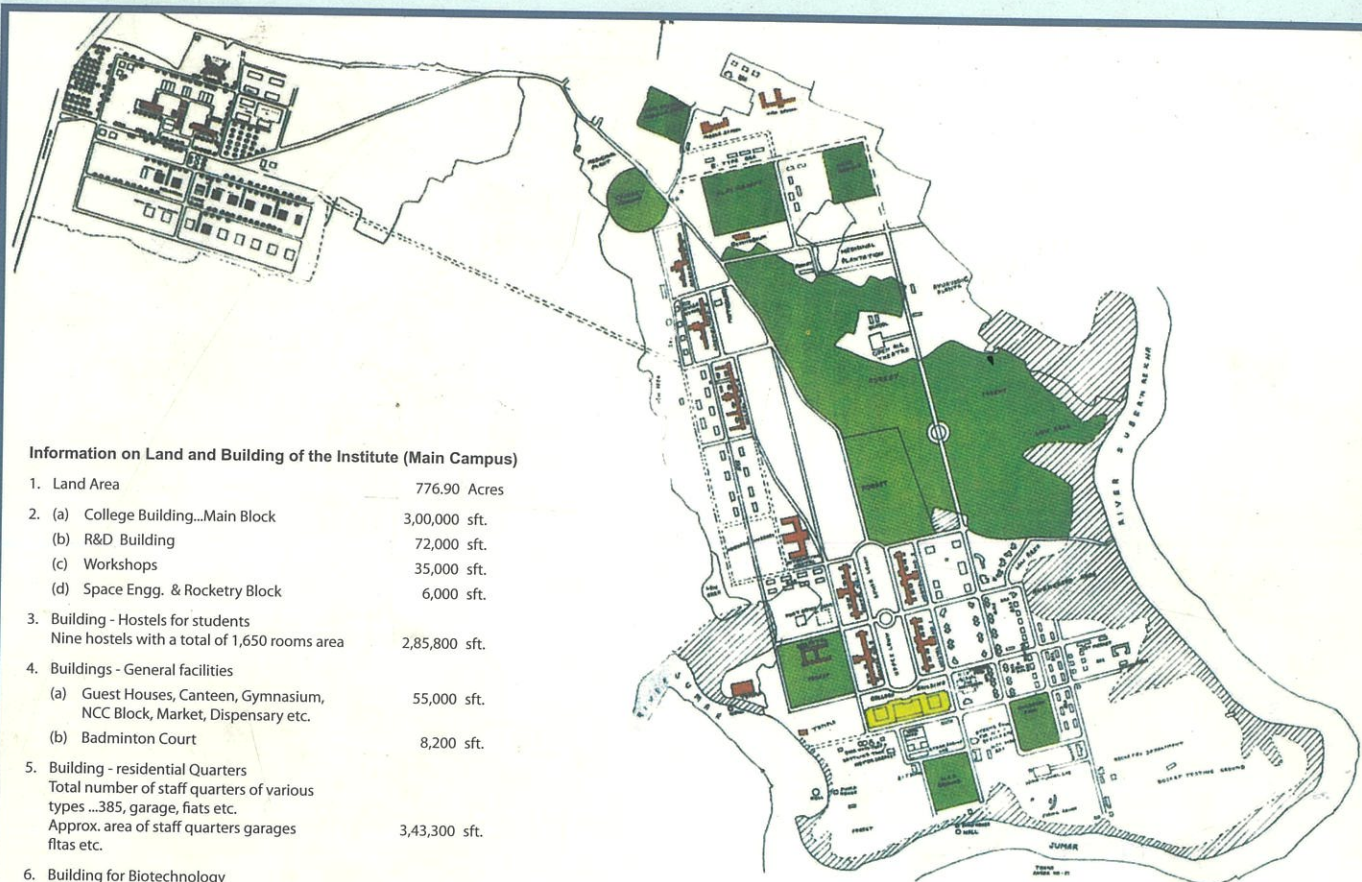
29.	Prof. P.P. Singh	Advisor	2276431
30.	Dr. Mohan Varma	Dean(Post Graduate)	2275444 Ext. 533
31.	B. I. T. Exchange		2275444,2275896,2276267 (INPCO)2276492/93/94/95/98/99
32.	VIP Guest House		2275213
33.	Chairman Bungalow		2275214
34.	Hostels		H1-2276074, H2-2276073, H3-2276072, H4-2276071, H5- 3298371, H5A-3298372H5A- 2276069, H63298373, H7-3298374, H82276075, H8(New)-2807639, H8A- 3207973, H9-2276076, H9A- 3207974,
35.	I. G. H		2276210
Off Campus Centre:			
36.	Ranchi (Lalpur)		(0651)2531679,2531817
37.	Kolkata		(033)55256728,24414542
38.	Jaipur		(0141)2751178,2751567
39.	Allahabad		(0532)2687099
40.	NOIDA		(0120)2553661-2
41.	Patna		(0612)2223538,2223545,32008 53
42.	Bahrain		(00973)17690025,17691506
43.	Muscut		(00968)24449196
44.	U. A. E		(+971)504862900,(+971)72272 203

ANNEXURE –IX

ADDRESS OF THE EXTENSION CENTRES

Sl. No.		Sl. No.	
1.	BIT Extension Centre Lalpur Lalpur, Ranchi-834001 Ph No-(0651)2531679,2531817 Fax No.(0651)2531658,2531676 www.biteclalpur.ac.in	2.	BIT Extension Centre,Jaipur B. S. I. R Campus 27, Malviya Nagar Industrial Area, JAIPUR-302017 Phone- (0141)-2751567/2751178 Fax: No. – (0141)-2751601, 2751565
3.	BIT Extension Centre Kolkata Southend Conclave 1582 Rajdanga Main Road 4th Floor, KOLKATA-700107 Ph. No. (033)55256728,24414542 Fax No.(033)25762398,24414547	4.	BIT Extension Centre, NOIDA A- 7, Sector -1 NOIDA-201301,(UP) Phone(0120)2553661/2 Fax: No. (0120) 2554146
5.	BIT Extension Centre, Allahabad B-7, Industrial area, P.O.-TSL Naini Allahabad – 211010 Phone: 0532-2687363,2687099 Fax: 0532-2687554 City Office- 14 Tagore Town, Allahabad – 211002 Phone:0532-2465518	6.	BIT Extension Centre,Patna Near Patna Airport, P. O. Bihar Veterinary College, Patna 800014 Phone:0612-2223538/2223545/3200853 Fax:0612-2223545 Patna City Office:62 D, Rajesh Kumar Path, S. K. Puri, Patna-800001 Phone: 0612-2540105, Fax:0612-2540105
7.	BIT Extension Centre, Deoghar Jasidih, Deoghar-814132 Ph: 9304422078 (WLL)	8.	BIT International Centre Muscat Waljat College of Applied Science P. O Box No. 197, Rusayal, Postal Code 124 MUSCUT, Sultanate of OMAN Fax: No. – (00968) 24449196 Phone: 00968-24449193
9.	BIT International Centre, Bahrain P.O. Box 31320,Bdaiya, Kingdom of BAHRAIN(AG) Fax No. (00973) 17692879 Phone: (00973) 17690025(PBX), 17691506(Direct) Email:bitic@batelco.com.bh, www.bitic.edu.bh	10.	BIT International Centre, UAE C/o Royal College of Applied Science & Technology Knowledge, Centre, RAK Free Zone Ras Al Khaimah, U.A.E Phone: +971504862900(M), +9717 2272203
11.	BIT International Centre, Mauritius No. 4, Glaieuls Avenue Mauritius		





BIRLA INSTITUTE OF TECHNOLOGY

Mesra, Ranchi-835215, Jharkhand, India

Phone: (0651) 2275444, 2275896, Fax: (0651) 2275401

Website: <http://www.bitmesra.ac.in>