



ANNUAL REPORT

2007-2008



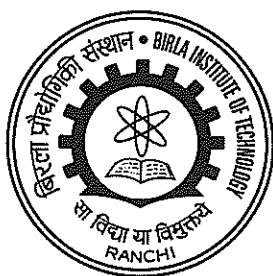
BIRLA INSTITUTE OF TECHNOLOGY
(DEEMED UNIVERSITY)
MESRA, RANCHI-835215, JHARKHAND, INDIA





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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.

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VICE-CHANCELLOR'S REPORT

The Institute founded by the industrialist and philanthropist Late Shri B. M. Birla in 1955, attained the status of a Deemed University in 1986. The Institute in conformity to the vision of its distinguished founder ensured the maintenance of the principle of the equity while offering almost open access for quality professional education at a reasonable cost. It also had the good fortune to receive blessings and support from its distinguished Chancellors as well as the blessings and guidance of Padma Bhushan Shri G. P. Birla as the Chairman of its Board of Governors. The Institute has at present nearly 13,000 students including its Extension Centres in India and Abroad, on its rolls.

The Institute finds its place in the league of the top institutions of the country in various surveys and continues to strive hard to improve this standing.

The continued excellence in research, pursued by its faculty members and encouraged by the Institute and the recognition of State and National level funding agencies like UGC, CSIR, DST, DAE, BRNS, ISRO, DRDO, ARDB, DBT, AICTE, NaMPET, C-DAC, Govt. of Jharkhand etc. led to the continuous garnering of support for several new programmes / projects of the Institute. The high quality of teaching and training imparted to its students continues to be recognized by industries all over the country as reflected in the campus placement records, with 1263 placements offers from 88 premier organizations having been received by its students. As many as 199 students received more than one offer.

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

Keeping in line with the expansion of its academic programmes, the Institute continues its efforts of consolidating its academic and infrastructure support in the form of equipment, learning resources and space.

The Institute has made plans to offer degree courses relevant to Aviation sector in Aeronautical Science meeting the requirements of DGCA for issuing Commercial Pilots License. The programmes in Aircraft Maintenance Engineering and training programmes for flight attendants and ground staff are also being planned in consultation with the experts from U. K. An MOU with Jamshedpur Co-operative Flying Club (JCFC) has already been signed to utilise their Training Facilities and a joint Project for establishment of Flying Training Institute in Jharkhand.

The Institute has sought approval for introduction of 2Year M.Sc. Programmes of inter-disciplinary nature, which would represent an optimum synergy of higher domains of knowledge in the traditional domains of physics, chemistry and mathematics to create a new breed of applied scientists, which would feel at ease while dealing with the inter-disciplinary subjects.

In continuation with the trend of introducing new programmes, the Institute has initiated a joint programme with ICICI Prudential leading to the Post Graduate Programme in Management and Insurance (PGPMI).

Our New Extension Centre at Deoghar had started functioning from the academic session 2007-2008.

The Institute's reputation further got elevated to a higher level with recognition as lead institute under second cycle of TEQIP-I - GOI. Three Institutions - Bihar Institute of Technology, Sindri, Govt. Polytechnic, Ranchi and Govt. Polytechnic, Dumka are as the Network Institutions under TEQIP. Regular faculty exchange programmes and access of facilities to the staff of the two Government Polytechnics to pursue higher studies

at our Institute have been provided. These collaborative activities are intended to improve the quality of all the four Institutes through establishment of academic and intellectual networks and thereby achieving optimum resource sharing.

The Institute research activities may be gauged by the following statistics for the current academic session:

Publications in International Journals	:	155
Publication in International Proceedings	:	55
Publication in National Journals	:	73
Publication in National Proceedings	:	135
Ongoing R&D Projects	:	69
Project Completed	:	11
Patent Applied	:	10
Books Published	:	08

All together 166 faculty members were financed by the Institute to attend National Seminars and 20 faculty members were financed to attend International Conferences.

In the 6th Audit of TEQIP under World Bank, BIT Mesra secured 9.2 on a 10 point scale. NPIU has planned to compile information on select innovative products/machines/devices/novel processes to publish a brochure and the following innovations from the State of Jharkhand are shortlisted for inclusion:

- i. **Solar powered potter wheel (BIT, Mesra)**
- ii. **Solar powered Charkha (BIT, Mesra)**
- iii. **Pooja Dhoop extrusion machine (BIT, Mesra)**

Large numbers of Lectures / Seminars / Conferences / Short-Term courses like "Measurement Techniques in Fluid Mechanics", "Accelrys Training on Polymer Modeling" and "Understanding of Financial Accounting" were organized under TEQIP.

The Department of Space Engineering and Rocketry has been identified for support in phase-II by the UGC under the Special Assistance Programme (SAP) of the Commission in the area of Cryo-hybrid Propulsion.

The Department of Production Engineering has also been acknowledged under the SAP Programme in the area of Precision Forming and also for phase-II under the FIST Programme of the Department of Science & Technology, Govt. of India in the area of Advanced Materials Processing.

The Institute has taken a lead role in institutional development by improving teaching, training and learning facilities, Augmentation of Laboratory Facilities in various Departments and by creating Central Instrumentation Facilities. The Institute also has functional TRACER CELL, EDUSET CELL, E-LEARNING CELL and PET CELL to help both, faculties and students.

An Indo-German Project on Development of Diamond Like Carbon (DLC) and Nanocrystalline Diamond Films has been awarded under Indo-German Bilateral Co-operation in Science & Technology (DST-BMBF) to Dr. P. K. Barhai, Department of Applied Physics.

As far as Infrastructure Development is concerned the following have been added during the current year:

- Creation of Central Instrumentation Facility.
- 10 Seminar Halls/Class rooms equipped with Audiovisual aids
- Acoustics System and Chairs for Golden Jubilee Auditorium
- Refurbishment of three Seminar Halls
- Refurbishment of various Laboratories: Cadence Laboratory, Propellant Laboratory and Instrumentation Facility etc.
- Air conditioning of CAD Laboratories and Central Instrumentation Facility.
- Cricket Pavilion at the cricket oval ground.

Academic Reforms is an on-going process at BIT. On the basis of the recommendations of Academic Reform and Examination Reform committees, reforms were implemented in the following areas during the period of report: Evaluation methodology of Theory courses, Introduction of External Examiners for Laboratory Examinations, display of Mid Semester papers to students, Introduction of Assignments / Term Papers in all Courses, Students appraisal of the teachers at the end of the Semester and On-line examinations.

We also understand our social responsibilities at BIT, Mesra. The Institute believes in equity. Apart from ongoing activities like Remedial classes, Book Bank, following activities has been taken up for students of disadvantaged class in this academic year:

- A Language Laboratory with self-learning modules of English, French, German, and Spanish has been set up for the students inside the Institute Central Library.
- Workshop cum Training Programme on Development of Solar Powered Potter's Wheel & improved smokeless Chulha organized by Mechanical Engg. Dept, BIT, Mesra in association with Jharkhand Energy Development Agency, Ranchi.
- BIT has established an IT Kiosk, in Kishlaya Vidya Mandir. It is provided with Internet facility and computer operator, who will help villagers in accessing Agriculture Information System developed by BIT as well as other information through internet.
- Development & Deployment of Agriculture information System (in Hindi). It is developed by Integrated Information Cell and is being deployed to villages by NSS students.
- Workshop cum Training Programme on Automobile Engineering Systems.

Dignitaries from World Bank and NPIU Prof. C. S. Jha, Consultant, World Bank, Mr. C. T. Mahajan, National Project Director, Dr. S. A. A. Alvi, Consultant, World Bank, Ms. Asha Bhagat, Finance Specialist, World Bank, Mr. S. Ramachandran, Consultant, Procurement, NPIU, Ms. Indu Sharma, Consultant Finance, NPIU, Mr. Sachin Gupta, Associate consultant Academics, NPIU, and Ms. Renu Sobti, Deputy Advisor, Planning Commission visited BIT on 3rd February to assess the progress of the project and suggested improvement methodology. The team visited the facilities created under TEQIP and an exhibition on the activities of TEQIP was arranged on the occasion.

The institute signed the following MOUs during this academic year:

- MOU for Academic Collaboration on Advanced Materials for Aerospace and Nanomaterials Development with University of TOMSK, Russia

- Collaborative R&D work with United Technology Research Center (UTRC), USA on scaling up of Direct Contact Membrane Distillation (DCMD) using Solar Energy for Production of Potable Water from Brackish Water from Rajasthan.
- Collaboration with the Dept. of Civil & Environmental Engg. Princeton Univ., New Jersey, USA on sustainable treatment strategy to arrest the fluorosis endemic in rural villages of Jharkhand State, India.
- The Institute of Technology and Management, Mumbai has entered into a MOU with the Department of Management for conducting collaborative Ph.D. Programme.

A 32-meter high micrometeorological tower has been setup at the Main campus of the Institute for land surface atmosphere and micrometeorological observation with the support of DST and GOI to collect weather data relevant to climate modelling and global warming. This is the first facility of its kind in the eastern part of the country. The Govt. of Jharkhand has also sanctioned a major project on Lightening Arrester to the Institute.

A large number of distinguished academicians, officials and experts visited the Institute during the period of report. Some of them are mentioned below:

Dr. Tim Lockyer, Dept. of Tourism and Hospitality Management, The Univ. of Waikato, New Zealand and Dr. Asad Mohsin, Associate Director, Dept. of Tourism and Hospitality Management, The Univ. of Waikato, New Zealand were invited to deliver lectures on January 13-19, 2008.

Prof. William Fitzgibbon, Dean and Prof. of Maths and Engg. Technology, College of Technology, University of Houston visited our Institute to discuss areas of mutual interest in Nano-sciences and Water Management.

Prof. Kathryn Hamer, Vice-President, University of New Brunswick Saint John, Canada visited the Institute and showed interest for collaborative work in the field of medicinal plants.

A team from University of Houston led by Dr. Hami Parsai visited the Institute to discuss joint degree programme in the area of Manufacturing Engineering and Electrical Engineering.

A delegation consisting of Dr. William H Glick, Dean, Jones Graduate School of Management, Rice University, USA and Dr. P B Seetharaman Professor, Jones Graduate School of Management, Rice University, USA visited the institute on 17 January, 2008 to finalize areas of academic collaboration between departments of Management of the two universities.

The highlight of some of the achievements of our faculty members and students are as follows:

- Dr. S. K. Mukherjee, Vice-Chancellor was elected as the President of Association of Indian Universities in January 2008.
- Dr. P. K. Barhai and Dr. Mohan Varma visited Universities, Institutes & Russian Academy of Science at Tomsk and Moscow, Russia for joint Collaborative work during July 30 – Aug 04, 2007.
- Dr. S. Konar has been selected as a Senior Associate of International Center for Theoretical Physics (ICTP), Italy.
- Dr. S. Medhekar was invited to the University of Hartford, CT, USA and visited Redondo Optics, Los Angeles, CA, USA and University of Hartford during 25th Dec. 2007 to 16th Jan. 2008.
- Dr. Rajeev Kumar was awarded one year Post Doc. Fellowship by Univ. of Pisa, Italy under Indo Italian collaboration program and visited univ. of Pisa during 1st Jan. 2007 – 31st Dec. 2007

- Dr. S. K. Rout was awarded Brain Korea (BK 21) fellowship, a Post Doctoral Fellowship of Korean Institute of Science & Technology (KAIST), South Korea during Dec.2007-Feb 2008 and is currently in Korean Institute of Science & Technology (KAIST), South Korea on BOYSCAST fellowship awarded by the Department of Science & Technology DST, Govt. of India.
- Dr. S. K. Mahapatra has been awarded Brain Korea (BK 21) Post Doctoral Fellowship under AJOU University, South Korea since Nov. 2007.
- Dr. A. K. Chatterjee has been nominated as Vice President of The Institution of Engineers (India) for the Session 2007-2008 and was invited to present the Key Note Address on "Convergence of Technologies for Rapid Development of India", Seminar on Engineers' Day, The Institution of Engineers (India), Aungul, Sept. 15, 2007.
- Dr. Mohan Varma was invited to deliver Lecture on "Advances in Gel Propulsion Technology : New Challenges" at Research Centre of High Energy Systems at Tomsk State University, Russia on July 31, 2007 and has been elected as member on the National Executive Council of High Energy Materials Society of India, 2007-2009. Dr. Varma also visited Japan Aerospace Exploration Agency (JAXA), Tokyo and attended 7th International STCP meet at Kyoto, Japan in Sept. 2007.
- Dr. J. K. Prasad has been elected Member, Executive Committee, National Society of Fluid Mechanics and Fluid Power, 2008-2010.
- Dr. Ajay Khare received LG-Archi Design Awards 2007 - Critics Choice Awards Category for the best written work in Architecture: "Temple Architecture of Eastern India" and was invited by College of Architecture, Georgia Institute of Technology, Atlanta, USA for a visiting teaching assignment for Spring 2008.
- Dr. M. Mukherjee, Dr. C. Guria, Dr. S. K. Sharma (BIT EC-Jaipur) visited Dept. of Polymer Science and Polymer Engg., Univ. of Akron Ohio & Univ. of Hartford, USA.
- Dr. M. Mukherjee visited College of Engg. & Technology at University of Houston and Rice University at Houston, USA.
- Dr. N. Patel Professor in the Department of Remote Sensing was invited as Visiting Professor, at Aalborg University, Denmark.
- Dr. M. S. Nathawat Professor & Head, Department of Remote Sensing was invited as Visiting Professor at Punjab University Chandigarh and was nominated as Member EC, Department of Forest & Environment, Govt. of India.
- Dr. Ashok Mishra was selected as Member of Editorial Board of International Journal of Mathematical Modeling, Simulation and Applications (IJMMSA) and appointed as Chairman of the Selection Committee of AIU Student Research Convention (East Zone) organized by The Association of Indian Universities.
- Sri J. Sanjeev, Sri J. George Phillip and Sri Vivek Kumar Gaba won the best paper award at the National Conference on Energy 2008, January 31 – February 01, 2008 at NIT Calicut.
- Dr. D. M. Pandey has been invited as COUNSULTANT by International Rice Research Institute, Manila.
- Dr. R. Bandopadhyay has been awarded BOYCAST Fellowship for year 2007-08.
- Dr. Gopal Pathak participated as a member of Scientific Advisory Board for the 23rd Annual International Conference on Contaminated Soils, Sediments and water which was held at University of Massachusetts, AMHERST, USA during Oct. 2007.

- Mr. Snehanshu Shekhar and Mr. Krishnendu Roy, both ME students, have been awarded prestigious N+I, ALTEN Scholarship, in France.
- The student team from BIT Mesra won overall 5th position in the Student Formula Car competition organized in Silver Stone UK
- Abhishek Goud, a BE student secured first position in the technical paper presentation contest on alternative solar energy utilisation techniques at ENGINEER 2007 (NITK, Surathkal's Annual Technical Festival).
- Abhishek Goud, also secured second position in the CONTRAPTION competition of propulsion mechanised boat making at ENGINEER 2007 (NITK, Surathkal's Annual Technical Festival), National Institute of Technology Surathkal.
- Sri Amit Ranjan also won the First Prize and Sri A. Mehta, Sri C.H. Rohit, and Sri P.K. Dhaboo won the Second Prize at the AIU Student Research Convention (East Zone) held on April 9 – 11, 2008.
- An Innovative Formula Student Car - A Product Oriented Approach by Ashish Mehta, Chintala Hari Rohit and Pratik Kumar Dhaboo of BE VIII Semester (Mechanical) was presented at the Auto Expo 2008, New Delhi on January 10-17, 2008.
- An Innovative - Design Mechanism Car developed by Sri Chandan Sharma, B.E. VI Semester Mechanical was presented at the Auto Expo 2008, New Delhi during January 10-17, 2008.

The students of the institute organized and participated in different cultural events and competitions. The Department of Management organized SAMAAGAM 2008 during April 2008. Our annual festival BITOSAV was organized this year during 15th – 17th Feb, 2008.

The Institute and its Extension Centres organized as many as 35 Seminars / Symposia / Workshops. Few of them are mentioned below:

- Department of Architecture and Jharkhand Regional Chapter of Institute of Town Planners, India (ITPI) jointly organized workshop on "Infrastructure Development of Small & Medium Sized Towns of Newly Constituted States".
- Department of Architecture & Technical Education Quality Improvement Programme (TEQIP) organized workshop on "Awareness building program for school teachers regarding the latest Issues of concern".
- Department of Architecture organized workshop under "National Programme for Capacity Building of Architects in Earthquake Risk Management", sponsored by the Disaster Management Department, Government of Jharkhand.
- Department of Biotechnology organized national workshop on Functional Genomics of prokaryotes.
- Department of Biotechnology organized Lecture of Dr. Eric Meyer, Research Director, CNRS, Paris on RNA based mechanism of non mendelian inheritance in ciliates.
- Department of Computer Science and Environmental Engineering Group jointly organized National Symposium on "Role of Green Computing in Mitigating Environmental Conflicts".
- Environmental Engineering Group organized two days workshop on "Water Conservation and Quality".
- Department of Electrical & Electronics Engineering organized vocational training programmes exclusively for disadvantaged students on "Repair & Maintenance of Electrical System" and "Repair & Maintenance of Household Appliances".
- Department of Electrical & Electronics Engineering organized short term course for Supervisors and engineers from Indian Railways as well as for participants from abroad on Power Electronics (SPE), in collaboration with Indian Railway Institute of Mechanical & Electrical Engineering, Jamalpur.

- Department of Mechanical Engineering Organized National Conference on New and Renewable Energy: Prospects and Challenges.
- Department of Mechanical Engineering Organized National Workshop on Research and Development in Emerging Areas of Locomotor Disability.
- Department of Pharmaceutical Sciences organized AICTE sponsored QIP programme on Preformulation Investigations and their rationale in the fabrication/development of drug delivery system.
- Department of Pharmaceutical Sciences organized AICTE sponsored QIP programme on Recent Trends in herbal Drug Research.
- Department of Production Engineering organized All India Seminar on Eco-Friendly Manufacturing.
- Department of Production Engineering organized National Workshop on Cleaner Production for Sustainable Development, status, challenges and vision.
- Department of Production Engineering organized Two-Days workshop on Precision Forming.
- Department of Space Engineering & Rocketry organized 34th National Conference on Fluid Mechanics and Fluid Power.
- BIT Extension Center Patna organized the following programmes:
 - One Week Trainers Training Programme on Computer Fundamentals for Technicians of ITIs of Bihar.
 - One-Day workshop on "Implementation of Energy Act-2001 in the State of Bihar" in collaboration with Bureau of Energy Efficiency, Ministry of Power, Govt. of India & BREDA.
- BIT Extension Center, NOIDA organized seminar on "Advertising and Brand Building Conference AD-IMPACT".

BIT Extension Centre, NOIDA got approval to start three new part-time courses for the academic session 2008-2009:

- I. PG Certificate Course in Retail Management
- II. PG Certificate Course in Banking and Insurance
- III. PG Certificate Course in Human Relations and Corporate Communication.

- BIT Extension Center, Jaipur organized an International workshop on "Challenges in plasma spectroscopy for future fusion research machines".

The Institute acknowledges (Late) Dr. S. K. Mukherjee, Former Vice Chancellor for his untiring efforts and leadership and the 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.

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 under section 3 of the UGC Act. in August 1986.

The Institute has constantly improved on its technical 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 institutions offering technical education in the country.

This institute has entered the fiftieth year of its establishment in 2004 and reassure its commitment to impart quality education.

ADMINISTRATION

B.I.T. Mesra is a "Deemed University" under Sec. 3 of the U. G. C. act 1986. 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, Chancellor, A.I.C.T.E, The Hindustan Charity Trust and the Institute Faculty. Shri G.P. Birla is the Chairman of the Institute. Composition of the Board of Governors is given in Annexure – II.



The Technical Council decides the academic policy of the Institute. It controls and 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 Department 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 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 various departmental board of study is given in Annexure –VII.

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

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, marking 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 Building	- 2835
Pharmacy 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 Boy's Hostel	- 2552
Four Girl's Hostel	- 338 Rooms (Double) & 196 Rooms (Single)
Research Scholar 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 Guests.

AUDITORIUM

To meet the growing needs of the community for public function there is a Golden Jubilee auditorium having the seating capacity of approximately 2500 persons.

Moreover, one Mini – Auditorium is also there, in the administrative Block, having the seating capacity of 450 persons.

GAMES & SPORTS COMPLEX

The Institute has a Gymnasium, which is spacious enough to arrange indoor games. Extensive playgrounds are provided for various sports. They are:

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		
• E. C.G		
• Oxygen Facilities		
• Suction Machine Facility		
• Medical Officers	-	04
• Pharmacists	-	04
• Dressers	-	01
• X – ray Technician	-	01
• Pathological Technician	-	01

- Staff Nurse - 01
- 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)

Other Programmes

Blood donation camp, Eye camp, Gynaecological camp are organized at frequent intervals.

During emergency patient is referred either to RIMS or to any private Nursing Home including APOLLO HOSPITAL depending upon the situation as per desire of the patient / Attendants of patients

Permanent faculty and staff members are covered by Group Mediclaim Policy in hospitalization cases

Community Health services are also carried out by organizing Medical camp in villages.

Programmes like Pulse Polio immunization, T.B. eradication programme, Leprosy eradication programme, Blindness removal programme etc. are regularly organized under National Health Services Scheme.

SHOPPING CENTRE

A well-maintained Cooperative store provides the daily requirements of the campus of nearly 5,000 residents. Additional Shopping Complex is provided for the sundry needs. The annual commodity sold through these outlets of the Campus exceeds Rs. 3 crores mark in value.

Others

- Consumer's 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 thirteen 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 a single – seats 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, Carrom and Chess etc. are available in the common rooms of each hostel. The reading room subscribes to a large number 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 tournament in indoor and outer games quizzes, competitions 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 culture and music programmes, fun and frolic, in festive mood. The halls are tastefully decorated to marks the occasion.

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

STUDENTS INTAKE

Courses & Degree Programmes : Currently the Institute is offering a variety of Programmes as detailed below

Main Campus

Programme	Year of Introduction of the Courses	Duration of the Course	Intake Capacity
Bachelor of Engineering			
Electrical & Electronics Engineering	1955	4 Years	60
Mechanical Engineering	1955	4 Years	90
Civil Engineering	1957	4 Years	60
Electronics & Communication	1964	4 Years	120
Production Engineering	1964	4 Years	30
Computer Science	1983	4 Years	120
Polymer Engineering	1995	4 Years	30
Information Technology	2001	4 Years	60
Biotechnology	2002	4 Years	60

Bachelor of Pharmacy	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 Specialization <ol style="list-style-type: none"> 1. Control system 2. Power system 	1964	2 Years	24
Mechanical Specialization <ol style="list-style-type: none"> 1. Heat Power Engineering 2. Design of Mech. Equipment 	1964	2 Years	12
Civil Specialization <ol style="list-style-type: none"> 1. Soil Mechanics 2. Structure & Foundation Engineering 	1964	2 Years	24
Electronics & Communication Specialization <ol style="list-style-type: none"> 1. Instrumentation 2. Microwave 	1965	2 Years	24
Space Engineering & Rocketry Specialization <ol style="list-style-type: none"> 1. Rocket Propulsion 2. Aerodynamics 	1965	2 Years	24
Computer Aided Design & Drafting Specialization <ol style="list-style-type: none"> 1. Comp. Aided Analysis & Design 2. Tribology 	1999	2 Years	18
Automated Manufacturing System	1996	2 Years	25
Software Engineering	2000	2 Years	15
Quality Engineering & Management	2002	2 Years	25
Polymer	2003	2 Years	18
Master of Technology Programme			
Remote Sensing	1997	2 Years	18

Fuel & Combustion	2002	2 Years	25
Computer Science	1994	2 Years	16
Scientific Computing	2002	2 Years	16
New Material & Processing Technology	2002	2 Years	18
Environmental Science & Engineering	2002	2 Years	18
Master of Pharmacy Specialization			
1. Pharm. Chemistry	1983	2 years	36 + 8(QIP)
2. Pharmaceutics	1983		
3. Pharmacology	2004		
4. Pharmacognosy	2002		
Master of Urban Planning	2006	2 Years	12
Master of Science Programme			
Biomedical Instrumentation	1992	2 Years	20
Information Science	1993	2 Years	30
Bio Informatics	2006	2 Years	30
Geo Informatics	2006	2 Years	10
Master of Business Management Specialization	1980	2 Years	120
1. Marketing			
2. Finance			
3. System			
4. Industrials Management			
Master of Computer Application	1984	3 Years	60

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	
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

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

ADMISSION DURING 2007 – 2008**Students Enrolment**

During the academic year 2007 – 2008, total of **12291** students were registered in various courses. The branch – wise enrolment is given below.

Sl.No.	Course	No. of Students
1.	Bachelor of Engineering	3224
2.	Bachelor of Architecture	171
3.	Bachelor of Pharmacy	173
4.	Bachelor of Hotel Management & Cat. Tech.	129
5.	Bachelor of Computer Application	1607
6.	Bachelor of Business Administration	2310
7.	Bachelor of Technology	91
8.	B. Sc. (A & M)	151
9.	B. Sc. (I. T.)	167
10.	B. Com (E. Comm)	88
11.	Integrated Engineering	132

12.	Diploma in Technology	19
13.	Master of Business Administration	558
14.	Executive(Master of Business Administration)	27
15.	Master of Computer Applications	1097
16.	Master of Pharmacy	82
17.	Master of Engineering	122
18.	Master of Technology	135
19.	M. Sc. (Information Science)	20
20.	M. Sc.(Bio Medical Instrumentation)	42
21.	M. Sc. (IT)	60
22.	M. Sc. (Bio-informatics)	117
23.	M. Sc. (Geo-Informatics)	35
24.	Inst. Of Engg.	20
25.	MUP	11
26.	PGPMI	52
27.	Non Formal Diploma	47
28.	Diploma in Engg.	301
29.	B.Sc. (MLT)	90
30.	B.E. (Marine)	728
31.	B.Sc. (N.Sc.)	190
32.	MBA(SLM)	34
33.	BAM	261
	Total	12291

New intake in 2007 – 2008

In the academic year 2007 – 2008, **3877** fresh students were admitted in various disciplines. The branch – wise breakup is given below.

Sl. No.	Course	Total
1.	B. E.	1157
2.	B. Pharm.	43
3.	B. Architecture	56
4.	B. H. M. C.T.	38
5.	B. B.A	805
6.	B. C. A	587
7.	B. Com.(E. Commerce)	44

8.	Bio- Tech	29
9.	B. Tech	25
10.	B. Sc. (A & M)	34
11.	B. Sc. (IT)	46
12.	B.Sc. (MLT)	28
13.	BAM	81
14.	Diploma in Engineering	112
15.	Integrated Engineering	72
16.	M. B. A.	202
17.	M. C. A	298
18.	M. Sc. (BMI)	13
19.	M. Sc. Geo- informatics	4
20.	M. Sc. Bio- informatics	36
21.	M. I. S.	3
22.	M. I. T.	22
23.	ME-Civil	2
24.	ME- Electrical(EEE)	11
25.	ME-Electronics(ECE)	22
26.	ME- CAAD	2
27.	ME- AMS	4
28.	ME-Mechanical	7
29.	ME-Software Engg.	5
30.	ME-S.E.R	4
31.	M. Tech. (Comp. Sc.)	14
32.	M.Tech(Polymer)	1
33.	M. Tech(R. S)	5
34.	M. Tech(F.C.)	1
35.	M. Tech (Sc. Compt.)	9
36.	M. Tech(NMPT)	6
37.	M. Tech(E.S.E)	5
38.	M. Pharm	43
39.	MUP	1
Total		3877

ENROLMENT in Ph. D. PROGRAMME

103 new scholars have been registered for the Ph. D. Programme in the area of Engineering Science, Pharmacy and Management during the session 2007 – 2008. The details are given below

Enrolment in Ph. D. Programme during 2007-08

Sl. No	Name of Scholar	Department	Area of Research
1.	Mr. V. S. Shankar Sriram	Department of Computer Science	"Design and Analysis of Efficient Crypto Algorithms T for Securing WLANs: A Mobile Agent Based Approach"2.
2.	Mr. Kishore Kumar Senapati	do	"Designing efficient pattern recognition algorithms for gene prediction and protein Sequence"
3.	Ms. Sabina Priyadarshini	do	"Design & Implementation of Intelligent & Compact Digital Image Processing Systems"
4.	Ms. Shruti Garg	do	"Image Denoising & Edge Detection Techniques: A Soft Computing Approach"
5.	Mr. Manoj Goyal	Department of Pharmaceutical Science	"Phytochemical and Pharma-cological studies on some Ethanomedicinal plants of Thar Desert"
6.	Mr. Anand V. Deshmukh	do	"Modulation of Nuclear Factor Kappa B Activity Through Antioxidant Potential of Lagenaria Siceraria"
7.	Mrs. Gouri Anup Palsokar	do	"Evaluation and Formulation of some Antioxidant from Natural Sources"
8.	Mr. Garvendra Singh Rathore	do	"Formulation Development and Evaluation of Osmotic Drug Delivery System of some Drugs"
9.	Mr. Baskar L.	do	"Biological Evaluation of Certain Novel 1-Substituted 2-Methyl Imidazole Derivatives"
10.	Mr. Venkateswaramurthy N.	do	"Stomach-Specific Anti-H Pylori Therapy: Preparation and Evaluation of Mucoad-Hesive Micro spheres Bearing Amoxicillin and Clarithromycin"
11.	Mr. B. Srinivasa Rao	do	"In-vitro and In-vivo evaluation of Mesalazine-olysaccharides matrix tablets for colonic drug delivery"
12.	Mr. S. P. Pattanayak	do	"Evaluation of Anti-tumor potency on chemical induced rat mammary carcinoma model and immunomodulatory activities of a hemi parasite Dendrophthoe falcate (L. f.) Ettingsh"

13.	Mr. Pritesh Vyas	Department of Biotechnology	"Functional genomics study of regulatory genes associated with anthocyanin biosynthesis and in vitro approaches for augmented production in red Tulsi (Ocimum tenuiflorum L.)"
14.	Ms. Monica Supriya Henry	do	"Biological Control and Plant Growth Promoting Micro-Organisms from Rhizosphere of Different Agricultural Crops"
15.	Mr. Alok Kumar Varshney	do	"Transcriptome and Proteome Profiling in Phanerochaete chrysosporium during different Growth phases"
16.	Mr. Chinmay Malik	do	"Study of Evolution of atmospheric boundary layer coupled with land surface processes at extreme eastern end of the monsoon trough"
17.	Mr. Anil Kumar	do	"Study of land surface and Micrometeorological processes over trough axis along its extreme eastern end of India"
18.	Mr. Ripunjay Kr. Shukla	do	"On Statistical Modeling to develop forest fire forecasting system"
19.	Mr. Kanhaiya Narayan Mishra	do	"Statistical Modeling of GIS based data to develop forest fire forecasting system"
20.	Ms. Shilpee Srivastava	do	"Contributions to the study of existence and asymptotic behaviour of periodic Solutions of functional differential equations"
21.	Ms. Amit Kumar Tiwari	do	"Development of commercial Food products from Ripe Jackfruit (Artocarpus hetero-phyllus) and evaluation of their quality parameters"
22.	Mr. Amit Kumar Khandelwal	do	"Production and characterization of nitrilase for biotransformation of nitriles"
23.	Ms. Priyanka Gupta	do	"Bio gasification of organic waste materials"
24.	Ms. Rati M. Tripathi	do	"The expression of LMO2 in Human T-cell Leukemias"
25.	Mr. Vikash Sharma	Department of Electronics & Comm. Engineering	"Channel Estimation for Ultra Wide Band MIMO Channels"
26.	Mr. Trilok Kr. Parashar	do	"Computer Aided Modeling and Simulation of Infrared Photo detectors for Toxic Gas Monitoring"
27.	Mr. Ambuj Kumar	do	"Development of Handoff Algorithm for Mobile Communication"

28.	Mr. Mahendra Kumar Das	do	"Modeling & Simulation of Quantum well Infrared Photodetector"
29.	Mr. Praveen Mishra	Department of Mechanical Engineering	"Design of submerged entry nozzle for a continuous slab caster"
30.	Mr. Alok Kumar	do	"Some Basic Aspects of Electromagnetic Radiation Emissions during Plastic Deformation and Fracture in Hexagonal Close Packed Metals"
31.	Mr. Jagdish Singh	do	"Development of New Rail Steels"
32.	Mr. Anil Kumar Sharma	do	"Some Investigations of Li Br-Water based Solar refrigeration System"
33.	Mr. Debashis Karmakar	do	"Study on the Influence of Rib Profile on Bond Strength of Reinforcement Bar Porous Medium"
34.	Mr. Mohammad Fahim Ansari	do	"Development of Surface coating compositions based on Shellac-Synthetic polymer Blends"
35.	Mr. Laxmi Prasad Sharma	Department of Remote Sensing	"Development of SDSS for Landslide Hazard Probability Study, Zonation and Mitigation"
36.	Mr. Lakhan Lal Mahto	do	"Monitoring of Forest Ecosystem and Biodiversity Assessment – A Geo-Informatics Approach for Sustainable Forest Management"
37.	Mr. Suraj Kumar Singh	do	"Evaluating Geohydrological Constraints on Food Induced Natural Hazards in Bihar State Using Geoinformatics"
38.	Mr. Amit Kumar	do	"Assessment & Comparative Evaluation of Urban Environment of Ranchi Township"
39.	Mr. Saji Baby	do	"Depicting Coastal Morphologic Evolution & Management for 'Coasts in Crisis, in the 'State of Kuwait'"
40.	Mr. M. Rajendra Kumar	Department of Applied Mathematics	"Contributions to the study of Qualitative Behavior of Solutions of Dynamic Equations On Time Scales"
41.	Mr. Ghulam M. Ansari	do	"Mathematical models and simulation on the attack And defence of malicious Objects in computer network"
42.	Mr. Ajit Kumar	Department of Civil Engineering	"Slope stability analysis during blasting in opencast Mines"
43.	Mr. Saikat Chattopadhyay	Department of Applied Physics	"Synthesis of Nano structured TiO ₂ thin film by Magnetron sputtering & study its Photo-catalytic properties"

44.	Ms. Leena Joshi	do	"Study of Transport & Spectroscopic properties of some functional Materials"
45.	Ms. Rakhi Bhattacharya	do	"Design & Investigation of Optical properties of Photonic crystal fibers with emphasis on device applications"
46.	Mr. Rajendra Kr. Jayswal	do	"Design & Analysis of Image Configuration for Speckle Metrology using Holographic Optical Element"
47.	Ms. Swati Srivastava	do	"Nonlinear Propagation Characteristics of Optical Pulses & Beams in Photorefractive media and possible Applications"
48.	Mrs. Kalpana Mahato	Department of Polymer Engineering	"Preparation and Analysis of Vinyl Ester Composites Based on Natural Fibers"
49.	Mr. Prafulla Kr. Manoharan	Department of Production Engineering	"Investigations into occupational health, Safety and ergonomic aspects of micro, small & medium Industries for enhancing productivity"
50.	Mr. Hemant Kumar Singh	Department of Env. Sc. & Engineering Group	"Prediction of Noise Induced Effects on Human Beings Using Fuzzy Expert System"
51.	Ms. Neeta Kumari	do	"Ground Water quality Management in Jharkhand with Special focus on Fluoride"
52.	Mrs. Ruchi Jha	do	"Cognitive Sciences and Affective Processes associated with intelligent system"
53.	Mr. Priyank Parakh	do	"Work Life Balance : Improving the odds of relocation"

Sri S. G. Rakesh, a Ph. D. Scholar in the Department of Mechanical Engineering has requested for re-registration into the Ph.D. Programme after the expiry of five years period.

On the basis of the progress in the Doctoral work of Sri S. G. Rakesh, the Doctoral Committee recommends that vide Clause 28 of the Ph. D. Regulations, permission for re-registration into the Ph. D. Programme be granted to Sri S. G. Rakesh.

[Under MOU between ITM and BIT, Mesra]

Sl. No.	Name of Scholar	Department	Area of Research
1.	Mr. Praveen Janardan Dange	Department of Management	"Studies on Corporate Social Responsibility in Indian Companies"
2.	Ms. Mishi Jagtap	do	"A Study of cognitive Personality traits airline travellers"

3.	Nisthi Kaul	do	"leader effectiveness through emotional competencies"
4.	Mr. Arvind N Prabhu	do	"Making Automation systems successful: A study of evolution, adoption and future trends of comport based automation systems"
5.	Mr. Ashish Subhedar	do	"Assimilation of Enterprise Resource Planning system: The role of Management and Vendors"
6.	Mr. Sanat Mishra	do	"Interrelationship between Leadership Style and Organizational culture- A study in Public Sector Petroleum Companies of India"
7.	Ms. Kotipalli Sirisha	do	"Economic Capital Allocation for Commercial Credit Risk in Basel II framework"
8.	Mr. R. K. Vyas	do	"Management of Micro Irrigation system in Arid areas of India: Some studies"
9.	Mr. Pradip B. Sonavane	do	"Strategic Growth through Competency Building Matrix in PSU with special reference to Oil Sector"
10.	Mr. Raj Kumar Dubey	do	"Role of HR practices in influencing Learning Culture: A study of Petroleum Marketing Companies in India"
11.	Mr. Sanjay Sinha	do	"Impact of External Capital on Indian Economy: A Sector Level Study"
12.	Mr. Subhamoy Chatterjee	do	"Study of Interest Rate Swaps in India among corporate in the mid-cap segment"
13.	Ms. Mona Sinha	do	"Interrelationship between Leadership Style and Organizational culture- A study in Public Sector Petroleum Companies of India"
14.	Mr. Sachidanand N. Shukla	do	"Macro economic risks for Mutual Fund Industry: An Econometric Analysis"
15.	Mr. Ram Narain Singh	do	"Employees' satisfaction with HR practices and their commitment to the organization: An Empirical study in Bharat Sanchar Nigna Ltd."
16.	Mr. P. Rajasekaran	do	"Study of Interest Rate Swaps in India among corporate in the mid-cap segment"
17.	Mr. Satish Kumar D.	do	"A Study of future Market potentials of Photo Imaging Industry In India"
18.	Ms. Subhashini Rajamani	do	"A critical study of Indian Social Health Insurance sector"
19.	Mr. V. Kannan	do	"A study of Benchmarking: The Service Quality of Ocean Container Carriers Operating in India"
20.	Mr. L. Goverthan	do	"Life cycle Cost Modeling for automotive sector under Indian Conditions"
21.	Mr. R. Mahadevan	do	"Total Quality Management in Engineering Institutions in India"

[Under MOU between ITM, Mumbai and BIT, Mesra]

Sl. No.	Name of Scholar	Department	Area of Research
1.	Mr. Ajay Bhagwat Srivastava	Department of Management	"Economies in Outsourcing a decision tool for outsourcers and outsourced companies"
2.	Mr. Vijay Uttam Jaddar	do	"Design Development of Decision Support System for Management of multiple Projects in multiple Locations"
3.	Mr. Rajib Prabhakar Wad	do	"Evaluation of TQM Programs with respect to achievement of organizational performance: An Empirical study of Manufacturing Units in Maharashtra"
4.	Mr. V. V. Ravi Kumar	do	"A Study for Current Status and Future Potential for Internet Banking in India"
5.	Mr. Anand Prakash	do	"Design & Development of Service Quality Model in Life Insurance business"
6.	Mr. Varadarajan Rangarajan	do	"A Study of Supply Chain Management in Retail Stores in Chennai District"
7.	Ms. Shobana Karthikeyan	do	"A Study of Human Resource Sourcing Strategies in Indian IT Industry"
8.	Mr. Tarapada Pyne	do	"Design & Development of Knowledge Management System to Availability of Hot Strip Mill in an Integrated Steel Plant"
9.	Mr. Jyoti Sanjay Jagasia	do	"Design & Development of Community of Practice (COP) Framework for Technical Education"
10.	Mr. V. Chandran	do	"Computation of JIT Index with reference to in-bound supply chain in a commercial Vehicle Industry"
11.	Mr. Sathivageeswaran S.	do	"Study of Leadership Competency based on Indian Wisdom"
12.	Ms. Ashima Sethi	do	"Linking Talent Management to Workplace Effectiveness: An Empirical Study of IT Industry In Indian Context"
13.	Prince M. Augustin	do	"Impact of Drivers of Human Resources engagements on Organizational performance (some studies in auto manufacturing plants)"
14.	Mr. Rajesh Nigam	do	"Supply chain of Petroleum Industry: Studies on Management Processes and influence of Stakeholder"
15.	Mr. Debashis Roy Chowdhury	do	"Linking Organizational Culture With performance: An Empirical study for Indian Petroleum Industry"

16.	Mr. B. Umasankar	do	"A Factor Analytic Study of Investment model in long-term buyer – seller interpersonal Relationship in selected high Technology Industries"
17.	Mr. Manish Kumar Sinha	do	"Employer Branding-Strategies & practices and their impact on Corporate working"

BIT Extension Centre, NOIDA

Sl. No.	Name of Scholar	Area of Research
1.	Ms. Nirmal Sharma	"The Paradigm Shift of Relating in India"
2.	Ms. Suprit Agarwal	"Marketing Strategies & its perspective for Pharmaceutical Business (A Comparative study on Prescribing behaviour of Indian General and Specialized Practitioners"
3.	Mr. Ramakrishan R. Nair	"Recruitment of Talent and Retention Strategies in Oil & Gas Sector in India"
4.	Mr. Kriti Bhaswar Singh	"Financing option for Cross-border Merger & Acquisition: Empirical Study"
5.	Mr. Aditya Verma	"The Impact of Efficacy Beliefs of a Virtual Team on Goal Achievement"
6.	Ms. Ruchi Agarwal	"Study of Data Mining Techniques in Decision making for Strategic Advantage in Business Organisations"
7.	Mr. Hitesh Gupta	"The Influence of Internet on Business-to-Business Buying Process for IT Organizations in India"

BIT IC, Ras Al Khaimah (UAE)

Sl. No.	Name of Scholar	Area of Research
1.	Mr. Sanjay Kumar	"Application of Level Set Methods"
2.	Mr. Mohammad Mohatram	"Development of ANN Models in Load Flow Analysis"
3.	Mr. Ranjeet Ranjan	"Design and Development of air Muscle actuated robotic arm"

BIT IC, Muscat

Sl. No.	Name of Scholar	Area of Research
1.	A. Sadasivam	"Analytical Overview of Customer Behavior pertaining to mid size Cars in Oman"
2.	Mrs. Preeti Shrivastava	"An Empirical Study of E-Banking in Oman and Customer satisfaction Perspective"

Ph.D. THESIS SUBMISSION 2007-2008

Following scholars have submitted their Ph.D. Thesis for evaluation during the year 2007-08

Sl. No.	Name of the Scholar	Department	Title of the Thesis
1	Soumendu Jana	Applied Physics	Light Matter Interaction in Media possessing Higher Order Nonlinearity
2	Raj kumar Gothwal	Bio- Technology	Rhizosphere Microbial Community Analysis of Soils From Hot Arid Region of Rajasthan
3	Guruvinder Singh	Pharmacy	Identification of Novel Cardioprotectives for Application in Cardiomyopathies
4	R.K. Mishra	Mechanical	Analysis of Mechanica Behaviour of Composites using Multiquadric Radial Basis Function
5	Sachin Laddha	Pharmacy	Development of Fused Pyrido Pyrimidines and Thienopyrimidines as Possible Phosphodiesterase Inhibitions
6	Kumar Rajnish	B.I.T. Lalpur	Metric Validation of Object Oriented Software Design
7	Manju Mishra	Pharmacy	Thermodynamics Approach to Drug-Excipient Interactions
8	Aruna Jain	Computer Science	Traffic Characterization and Performance Analysis of Web Proxy Server
9	Mrs. S.M. Verma	Pharmacy	Synthesis and Pharmacological Studies of Some Azbaic-cyclonane Analogs
10	M.J.B. Reddy	EEE	Detection, classification and Localization of Power System Transmission Line Faults using Wavelet Neuro-Fuzzy Combined Approach
11	Rashmi Kulshreshthra	Pharmacy	Determination of Aflatoxin in Herbal Drugs Using HPLC
12	Kingshuk Bose	Applied Physics	Testing & Measurement of Physical Parameters Using Holographic Interferometry
13	P. K. Upadhyay	EEE	Wavelet-Neural Analysis of Effect of Heat Stress on Sleep-Egg
14	S. G. Kadwane	EEE	Design and Implementation of Conventional and Neuro-Fuzzy Controllers for Switch Mode DC-DC Converter Under Different Load Conditions
15	Raju Poddar	Bio-Technology	Non contact, Non invasive Pathological Measurement Using Optical Coherence Tomography
16	D. M. Kar	Pharmacy	Synthesis and Pharmacological Studies of Some Nitrogen Heterocyclic Compounds with Special Interest on Indole Derivatives
17	Nazir Hussain	Mechanical	Effect of Low Temperature of Mechanical Behaviour of Glass Fibre Composites

18	S. C. Srivastava	Production	Intelligent Controllers for Flexible Manufacturing Environment
19	S. Vadivelan	Pharmacy	Pharmacophore Modeling and Docking Studies of GSK - 3 β & CDK-2 Inhibitors
20	Ram Krishna Sarkar	Applied Physics	Study of Induced Nonlinear Optical Fiber Waveguides and Devices
21	S. P. Lal	Production	Sustainable Manufacturing for Improving Productivity
22	Mrs. Deep Shikha	Applied Chemistry	Effects of Nitrogen Ion Implantation in Biomaterial Alumina
23	H. S. Gupta	Remote Sensing	Spatio – Temporal Assessment of Forest cover in Ranchi District and Forest Management Issues
24	Mrinal Mishra	ECE	Electromagnetic Radiation and Scattering Problems Using Methods of Moments and Monte Carlo Integration Techniques
25	Ms. Shobha Rani Sharma	Bio-Technology	Optical Imaging of Stratified Media Using Optical Coherence Tomography
26	A. R. Chandak	Pharmacy	Formulation Development and Evaluation of Transdermal Drug Delivery System of Some Drugs
27	Prabhjot Kour	Applied Mathematics	Fuzzy Approach to Multicriteria Decision Making Problems

CONVOCATION, RESULTS, DEGREES / DIPLOMA AWARDED

Upon recommendation of the Board, the following scholars who have cleared the programme during 2007-08 were awarded Degree / Diploma in the convocation 2007-08 held on 22nd May 2008.

Ph.D. Degree

Sl.No.	Name of the Scholar	Topic	Discipline
1.	Mrs. Vibha Rani Gupta	"Design and Characteristics of Compact Microstrip Antennas for Wireless Communication"	Engineering
2.	Mr. Saranjit Singh	"Investigations into Dynamic effects during Mechanical Processing of Sintered Materials"	Engineering
3.	Ms. Vineeta Arora	"Investigating the Relationship between the Raw Coal Characteristics and Effluent Quality in a given Beneficiation Process and Developing a Cause-Effect Paradigm"	Science
4.	Mr. S. Muthukumaran	"Flow Analysis in Friction Stir Welding Process"	Engineering
5.	Ms. Neela Chatteraj	"Optimization of Microstrip Antenna and Magnetized Ferrite Microstrip Antenna using Genetic Algorithms"	Engineering
6.	Mr. Manish Kumar Jha	"Design and Simulation of 3-Stage Clos Switching Network for Enhanced QoS"	Engineering

7.	Mr. R. Sukesh Kumar	"Studies on Crisp and Fuzzy Texture Image Analysis"	Engineering
8.	Ms. Sanjita Das	"The Phytopharmacological Studies of Ethanolic Extracts of Flowers, Barks and Seeds of Nyctanthes Abortivis Linn"	Pharmacy
9.	Mr. Gurvinder Singh	"Identification of Novel Cardioprotectives for Applications in Cardiomyopathis"	Pharmacy
10.	Mr. R.K. Gangopadhyay	"Study of some Accidents in Chemical Industries"	Engineering
11.	Mr. Utpal Baul	"Mutuality of influences between Organizational Buying Behavior and Marketing Strategies – A Comparative Study"	Management

Other Degrees / Diplomas

		Branch				Total
1	Doctor of Philosophy					11
2	Post – Graduate Degrees			I	II	Total
	Master of Business Administration			156	145	301
	Master of Computer Applications			267	102	369
	Master of Engineering	Automated Manufacturing System		3	-	3
		Computer Aided Analysis & Design		7	-	7
		Civil		2	-	2
		Electrical		17	4	21
		Electronics & Communication		21	1	22
		Mechanical		16	-	16
		Quality Engineering Management		1	-	1
		Software		8	2	10
		Space Engineering & Rocketry		10	-	10
		Polymer		6	-	6
	Master of Pharmacy			37	6	43
	Master of Science	Bio-medical Instrumentation		12	19	31
		Information Science		16	15	31
		Information Technology		15	3	18
	Master of Technology	Computer Science		21	7	28
		Environmental Science & Engineering		16	-	16
		Fuels & Combustion		2	1	3

		New Material & Processing Technology		5	-	5
		Remote Sensing		15	-	15
		Scientific Computing		4	1	5
	Post – Graduate Diploma	Electrical Engg.		1	-	1
		Business Administration		1	-	1
			Total			965
3	Under-Graduate Degrees		1D	1	11	Total
	Bachelor of Architecture		11	5	-	16
	Bachelor of Business Administration		209	176	-	385
	Bachelor of Computer Applications		218	74	-	292
	Bachelor of Engineering	Biotechnology	29	13	-	42
		Civil	3	21	-	24
		Computer Science	36	33	1	70
		Electrical & Electronics	31	31	-	62
		Electronics & Communication	48	38	-	86
		Information Technology	10	25	-	35
		Marine	62	22		84
		Mechanical	40	68	1	109
		Polymer	1	5	-	6
		Production	6	16	-	22
	Bachelor of Hotel Management & Catering Technology		15	15	-	30
	Bachelor of Pharmacy		19	14	-	33
	Bachelor of Science	Animation & Multimedia	8	4	-	12
		Nautical Science	66	1	-	67
			Total			1375
4	Diploma in Technology	Automobile Engineering	8	8	-	16
		Computer Science	10	7	-	17
		Electrical Engineering	8	1	-	9
		Electronics Engineering	16	7	-	23
		Manufacturing Engineering	3	2	-	5
		Mechanical Engineering	17	-	-	17
		Metallurgical Engineering	15	-	-	15
			Total			102
			Grand Total			2453

Faculty position (including India and Abroad)**SUMMARY OF THE FACULTY POSITION**

Sl. No.	Category	Sanctioned
1.	Professor	60
2.	Associate Professor	20
3.	Reader	46
4.	Lecturer (Selection Grade)	11
5.	Senior Lecturer	35
6.	Lecturer	255
7.	Associate Lecturer	62
8.	Scientific Officer	14
9.	Res. Assoc. Cum Tutor	8
10.	Others	19
	Total	530

FACULTY POSITION**Department of Architecture**

Sl. No.	Name of the faculty	Designation	Qualification	E-mail
1.	Dr. Ajay Khare*	Professor and Head	Ph.D.(UK), M.Arch.(York,UK), M.Arch.(SPA,Delhi, B.Arch. (LKO.)	khare_ajay@hotmail.com
2.	Dr. Manjari Chakraborty	Sr. Architect	B.Arch(Hons) (IIT, Kharagpur), M.U.P. (SPA, N. Delhi)	manjari@teacher.com
3.	Mr. D. J. Biswas	Reader	M.C.P. (IIT Kharagpur), B.Arch.(Hons.), (IIT Kharagpur	djbiswas@bitmesra.ac.in, biswas_dj@yahoo.com
4.	Mr. N. R. Mandal	Reader	B.Arch(Hons) (IIT, Kharagpur), M.U.P. (SPA, N. Delhi)	nrm1201@yahoo.co.in; nrmandal@bitmesra.ac.in
5.	Mrs. Rachna Khare*	Lecturer Selection Grade	B.Arch, PGDEE, PhD (ongoing) Fulbright Scholar at Georgia Tech, USA	rkhare6@mail.gatech.edu

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7.	Mrs. Harshit Lakra*	Sr. Lecturer	B.Arch., P.G.Diploma (CEPT, Ahmedabad), Masters in Regional Planning (Ongoing at Cornell, USA)	harshit_lakra@bitmesra.ac.in
8.	Mr. Sanmarga Mitra*	Sr. Lecturer	M.C.P. (Indian Institute of Technology, Kharagpur), B.Arch. (Hons., Jadavpur Univ., Kolkata)	mitra_sanmarga@rediffmail.com
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17.	Mrs. Jayeeta Dey	CAD Programmer		

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Department of Applied Physics

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Department of Computer Science & Engineering

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Department of Electrical & Electronics Engineering

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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	Reader
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.	Mr. N. Poddar	Reader
9.	Dr. Pradeep Choudhary	Reader
10.	Dr. Chinmoy Kr. Panigrahi	Sr. Lecturer
11.	Mr. Kanhaya Lal	Sr. Lecturer
12.	Dr. S.K. Sinha –II	Sr. Lecturer
13.	Mr. Baboo Rai	Sr. Lecturer
14.	Mrs. Anubha Singh	Lecturer
15.	Mr. Sudipta Kishore Pradhan	Lecturer
16.	Dr. Kaushlendra Sharma	Lecturer
17.	Mr. Soumen Mandal	Lecturer
18.	Dr. Anurag Jaiswal	Lecturer
19.	Mr. Prashant Kumar	Lecturer
20.	Dr. Kamala Pati Tiwary	Lecturer
21.	Mr. Dileep Kr. Upadhyay	Lecturer
22.	Mr. Vijay Kr. Mandal	Assoc. Lecturer
23.	Mr. Madhup Kumar	Assoc. Lecturer
24.	Mr. Umesh Prasad	Assoc. Lecturer
25.	Mrs. Neelam Kumari	Assoc. Lecturer
26.	Mr. Rajnish Kumar	Assoc. Lecturer
27.	Mr. S.S. Yadav	Sports Instructor

B.I.T. International Centre: Bahrain

Sl. No.	Name of the faculty	Designation
1.	Prof. T.R. Ranganath	Director
2.	Prof. Suryalal Mishra	Professor
3.	Mr. Prateek Sharma	Assoc. Professor
4.	Dr. Radha Kirshan Sharma	Reader
5.	Mr. N. Saravanan	Sr. Lecturer
6.	Ruchin Jain	Sr. Lecturer
7.	Mr. Vishal Kumar Raghav	Sr. Lecturer
8.	Mr. Pranav Nathani	Lecturer
9.	Shanthi Saravanan	Lecture
10.	Mr. Sultan Khan	Lecturer
11.	Dr. (Mrs.) Sreeja T. D.	Lecturer

12.	Mr. Shiv Dayal Sharma	Sr. Mechanic
13.	Mr. Aparajit Nandi	University Education Teacher
14.	Mr. Ambadath Rajendran	University Education Teacher
15.	Mr. Soofi Anwar	University Education Teacher
16.	Mr. A.M. Susai	University Education Teacher
17.	Mr. Arun Shankar	University Education Teacher
18.	Mr. Girish Mhatre	Workshop Trainer
19.	Mrs. Kaveri Mukherjee	University Education Teacher
20.	Mrs. Nushat K. Qurashi	University Education Teacher
21.	Dr. Rumpa Roy	University Education Teacher
22.	Ms. Roshni Elizabeth	University Education Teacher
23.	Mrs. Geeta Sapru	University Education Teacher

B.I.T. International Centre: Muscat

Sl. No.	Name of the faculty	Designation
1.	Dr. A.M. Agrawal	Dean and Director
2.	Dr. Alexander Kocian	Reader
3.	Mr. Sunil Gupta	Reader
4.	Dr. K. A. Goyal	Sr. Lecturer
5.	Mr. Vikash Sharma	Sr. Lecturer
6.	Dr. Prabal Dutta	Lecturer
7.	Dr. Pranab Kumar	Lecturer
8.	Mr. Iftekhar Ahmed	Lecturer
9.	Mr. Jyoti K. Chandel	Lecturer
10.	Mr. Mithun Shrivastava	Lecturer
11.	Ms. Shashi Dua	Lecturer
12.	Mr. Niraj Mishra	Lecturer
13.	Mr. A.R. Srivastava	Lecturer
14.	Mr. Sushil Kumar	Lecturer
15.	Ms. Nupur Sen	Lecturer
16.	Ms. Srilekha Goveas	Lecturer
17.	Ms. Seema varshney	Lecturer
18.	Ms. Blossom Christina	Lecturer
19.	Ms. Neelufer Aslam	Lecturer
20.	Mr. Piyush Gupta	Lecturer

21.	Mr. Satish Chander	Lecturer
22.	Mr. Sanjay Kumar	Lecturer
23.	Ms. P. Vijaya	Lecturer
24.	Mr. Shahid Ali	Lecturer
25.	Ms. R.M Vallikannu	Lecturer
26.	Mr. Santosh Kumar Ray	Lecturer
27.	Mr. A.K. Choudhary	Lecturer
28.	Mr. Akhilesh Roy	Lecturer
29.	Mr. Mohd Mohatram	Lecturer
30.	Mr. G. Shiva Kumar	Lecturer
31.	Mr. David Manohar	Lecturer
32.	Mr. Kenneth McGowan	Lecturer
33.	Ms. Helen Daniel	Lecturer
34.	Ms. Smita Prasad	Lecturer
35.	Dr. Sadaf Zahara	Assoc. Lecturer
36.	Ms. Atiya Tabassum	Assoc. Lecturer
37.	Ms. Anusuya Patil	Assoc. Lecturer
38.	Ms. Indrani Basu	Assoc. Lecturer
39.	Ms. Linus Norohna	Assoc. Lecturer
40.	Mr. El Amin El Nur	Assoc. Lecturer
41.	Ms S.B Sinyamol	Assoc. Lecturer
42.	Ms. Sara Mubarak Khamis Al Hedabbi	Teaching Assistant
43.	Ms Nejma Muhammed	Teaching Assistant

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

Sl. No.	Name of the faculty	Designation
1.	Dr. Praveen Dhyani	Director
2.	Prof. Bal Ram	Professor
3.	Dr. Peeyush Tiwari	Sr. Lecturer
4.	Mr. Dileep Tanksali	Sr. Lecturer
5.	Mrs. Indu Nair	Sr. Lecturer
6.	Mrs. N. Mallika	Sr. Lecturer
7.	Dr. Nalini Raja	Sr. Lecture
8.	Mrs. A.S. Padmashree	Sr. Lecturer

9.	Mrs. Thaseen Fatima	Sr. Lecturer
10.	Mrs. Sreelatha Sudhir	Asst. Professor
11.	Mr. Avnish Vijay	Lecturer
12.	Mr. V.C.S.M.R.Pujari	Lecturer
13.	Mr. Bharathan Viswanathan	Lecturer
14.	Mr. Sunil	Lecturer
15.	Mr. V. Rajesh	Lecturer
16.	Mrs. Abhirami T.	Lecturer
17.	Mr. Rejy K Thariyan	Lecturer
18.	Mr. D. Ravikumar	Lecturer
19.	Mr. S.P. Bhattacharya	Lecturer
20.	Mr. Sanmarga Mitra	Lecturer
21.	Mrs. Parama Mitra	Lecturer
22.	Mr. Tanweer Eqbal	Lecturer
23.	Mr. K.N.Murugavel	Lecturer
24.	Mrs. Halima Biwi	Lecturer
25.	Mrs. Srija Praveen	Lecturer
26.	Mrs. Sivasankari S.	Lecturer
27.	Mr. Ranjeet Ranjan	Lecturer
28.	Mrs. Shimna Shafeek	Lecturer
29.	Mrs. Uma Laxmi	Lecturer
30.	Mrs. Sajeena Nizam	Lecturer
31.	Mrs. Mincy Oommen	Lecturer

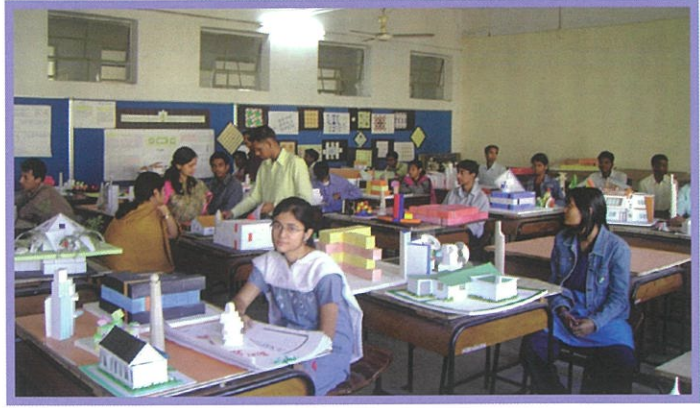
University Polytechnic

Sl. No.	Name of the faculty	Designation
1.	Mr. D. K. Jain	Director/ In-charge
2.	Dr. N. K. Singh	Lecturer
3.	Mr. Ramkesh	Lecturer
4.	Mrs. Meena Singh	Lecturer
5.	Mr. Manish Oraon	Lecturer
6.	Mr. Pradeep Toppo	Lecturer

7.	Mr. T.K. Baug	Scientific officer
8.	Mr. G.M. Ansari	Jr. System Analyst
9.	Mr. Manish Kumar Roy	Assoc. Lecturer
10.	Mr. Rakesh	Assoc. Lecturer
11.	Mr. N. K. Mukherjee	Assoc. Lecturer
12.	Mr. Ramnish Sinha	Assoc. Lecturer
13.	Dr. B. N. Sanyal	Assoc. Lecturer
14.	Ms. Tanushree Bose	Assoc. Lecturer
15.	Mrs. Sumana Kumari	Assoc. Lecturer
16.	Mr. Vikas Verma	Assoc. Lecturer
17.	Mr. Trilok Kumar Parashar	Assoc. Lecturer
18.	Mr. Abhay Kumar	Assoc. Lecturer
19.	Ms. Sandhya Kumari	Assoc. Lecturer
20.	Mrs. Neeru Singh	Assoc. Lecturer
21.	Mrs. Sushila Ekka	Tutor

Department of Architecture

The Department of Architecture was established in BIT Mesra in the year 1993. Architecture is primarily the art and science of designing spaces for serving the multifarious activities of human beings and for meeting their specific needs in a meaningful built environment. Architecture calls for originality, creativity, conceptualization, perception, aesthetic values and a holistic judgment of people, places, objects and events. Imparting these values, our ten batches of students have graduated till now and they have found gainful employment in 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. Our students have also opted for diversified fields such as Visual Design, Product Design, Fashion Design, Management and Software Development related with 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). 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 first batch comprised students from various backgrounds like architecture, civil engineering, geography, sociology and economics.

The Department of Architecture of BIT Mesra 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. Three issues of the journal have been published. The last issue devoted on 'Architecture for All' edited by Rachna Khare consisted articles from experts of seven countries. Spring 2008 issue will be devoted on 'Architectural Education' and is being edited by Dr. Manjari Chakraborty.

Dr. Ajay Khare, Professor and Head of the department received Archi Design Award 2007 for 'Best Written work in Architecture' for his book titled 'Temple Architecture of Eastern India'.

Courses offered

UG Course

- 5-Year B. Arch degree course in Architecture

PG Course

- 2-year Master in Urban Planning degree course.

Doctoral degree in Architecture and Planning**Faculty position**

Designation	Professor	Senior Architect	Reader	Lecturer-selection-grade	Senior Lecturer	Lecturer	Associate Lecturer
Number in Position	1	1	2	1	4	6	1

Number of Students enrolled / registered with Department

Semester	No. of Students
B.Arch.	
IIInd Semester	36
IVth Semester	25
VIth Semester	35
VIIIth Semester	13
Xth Semester	18
Total	127
Master in Urban Planning	
IIIrd Semester	11
Doctoral Programme	8

Ongoing Projects

Sl. No.	Research Project Topic	P.I. / Co- P.I.	Funding Agency	Amount Sanctioned
1.	Formulating a Planning Approach for some of the Newly Made District Head Quarters Encircling Ranchi , the Capital of Jharkhand state	Prof. (Dr.) Ajay Khare & Ar. N.R. Mandal, (Project Coordinator)	DRS scheme of the Special Assistance Programme (SAP), UGC	33 Lacs. For 3 projects
2.	GIS Mapping of Heritage Sites in Jharkhand	Prof. (Dr.) Ajay Khare & Ar. N.R. Mandal, (Project Coordinator)	DRS scheme of the Special Assistance Programme (SAP), UGC	33 Lacs. For 3 projects
3.	Prototype Designs for Rural Infrastructure Buildings.	Prof. (Dr.) Ajay Khare & Ar. N.R. Mandal, (Project Coordinator)	DRS scheme of the Special Assistance Programme (SAP), UGC	33 Lacs. For 3 projects
4.	Documentation and GIS Mapping of Architectural and Urban Heritage of Jharkhand and Planning for Pro-poor Heritage Tourism	Prof. (Dr.) Ajay Khare, (Project Coordinator)	Institute	

5.	Vibration Based Analysis for Health Monitoring of Multi-storey Structures due to Base Excitation.	Dr. S.K. Chakraborty, (Project Coordinator)	Institute	
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)	Institute	
7.	Collaborative Research Project on "Study of Energy Consumption Patterns in Different Building Typologies in different Climatic Zones of India" as part of an overall research on 'Energy Efficient Buildings' supported by United Technologies Research Center (UTRC), East Hartford, USA .	Prof. (Dr.) Ajay Khare & Ar. N.R. Mandal, (Project Coordinator)	WBCSD and (UTRC), USA	US\$ 32,000

Seminar / Conference / Workshop etc conducted by the Department

- East Zone Planning Conference of the "Institute of Town Planners, India" on "Planning and Development of Social Infrastructure" during 4th – 5th August, 2007 at Birla Institute of Technology, Mesra, Ranchi.
- Workshop under "National Programme for Capacity Building of Architects in Earthquake Risk Management", organised by the Architecture Department, Birla Institute of Technology, Mesra, Ranchi, sponsored by the Disaster Management Department, Government of Jharkhand; 30th July - 4th August, 2007.

Publications

International

- Khare, A. Book Review: "Modern Trends in Planning and Designing of Hospitals: Principles and Practice". ABACUS: An Internationally Refereed Bi-annual Journal on Architecture, Conservation and Urban Studies, India; 2 No 2, , 112 –113. Monsoon 2007.
- Khare, A. R. "The Central Institute of Psychiatry, Ranchi: A mental health care institute of National Importance". ABACUS: "An Internationally Refereed Bi-annual Journal on Architecture", Conservation and Urban Studies, India; 2 No 2, 105 –108, Monsoon 2007.

National

- Chakraborty, M. "Microdesign – a Macro Need". Architecture + Design, XXIV, No.12, 150-153, December 2007.
- Sarkar, A. S. "Response to Dynamics of Urban Development – case study of Jharkhand". Journal of Indian Buildings Congress, 14th, 1, 152 – 156, 2007.
- Sarkar, A. S. "Improving basic services in the Peri urban expanses of Ranchi". National Seminar of Indian Institute of Town Planners, India, at Kolkata, 20th - 22nd January 2007.

Seminars / Symposiums / Short Term Courses Attended by faculty members:

International events

- Khare, A. attended "*International Conference of Build Boston*" organized by American Institute of Architects at Boston USA from November 13th - 15th, 2007.
- Biswas, D.J. attended "*The Sixth China Urban Housing Conference*" at The International Convention Centre, Beijing, China 26th – 28th March, 2007.
- Khare, A. R. attended "*International Conference of Build Boston*" organized by American Institute of Architects at Boston USA from November 13th - 15th, 2007.
- Agrawal, R., and Mishra, S. attended "*Sixth Annual International Conference and Exhibition on Geographic Information Technology*" and Applications - MAPASIA 2007" at Kuala Lumpur, 14th -16th August 2007.

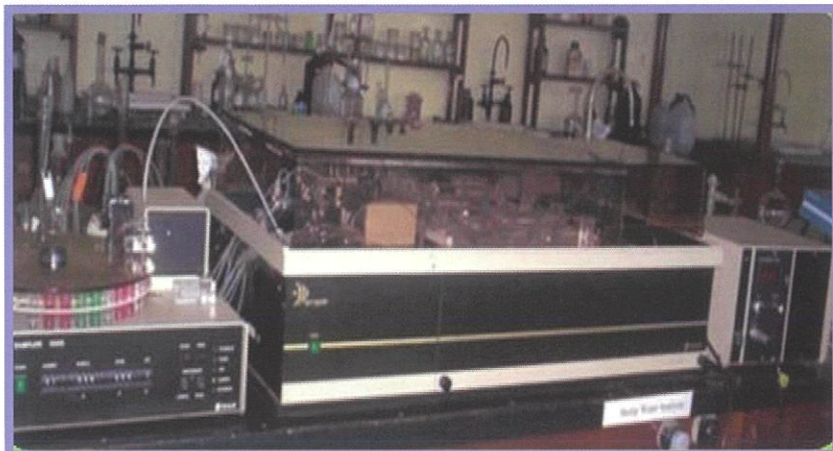
National events

- Chakraborty, M. attended National Conference on "*National Building Code 2005*", organized by Institution of Engineers, Jharkhand Chapter, June 2007
- Mandal, N.R., Agrawal, R. Mishra, S., Pandey, S.K., and Toppo, A. attended. "*Basics of RS, GIS & GPS*", sponsored by NNRMS and organized by Indian Institute of Remote Sensing, NRSA, Department of Space, Govt. of India through EDUSAT based distance learning programme from September 24th -December 3rd, 2007.
- Agrawal, R., and Mishra, S. attended "*Teacher's Training Programme (TTP) – Gen_5 Architecture*" at NIASA (National Institute of Advanced Studies in Architecture), Pune, organized by the Council of Architecture from 28th May – 1st June 2007,
- Agrawal, R., and Mishra, S., attended "*Induction Training Programme (ITP)*" at NIASA, Pune, organized by the Council of Architecture from 4th – 8th June 2007.
- Singh, G, & Singh, N. attended "*13th National convention of Indian Building Congress*" in New Delhi on May -2007.
- Sarkar S. attended. "*National Seminar of Indian Institute of Town Planners, India*", at Kolkata, 20th – 22nd January 2007
- Khare, A., Mandal, N. R., Lakra, H. S., Mitra, S., Sarkar, S., Mishra, S., Singh, G., Singh, N., and Toppo A. K.- attended "*One Day Technical Workshop on Model Building Byelaws for Safety Against Natural Hazards*" organised by the BMTPC, Ministry of Housing and Urban Poverty Alleviation, Gol at Capitol Hill, Ranchi on March 12th, 2007.

Awards/ Citations bestowed on faculty members and students

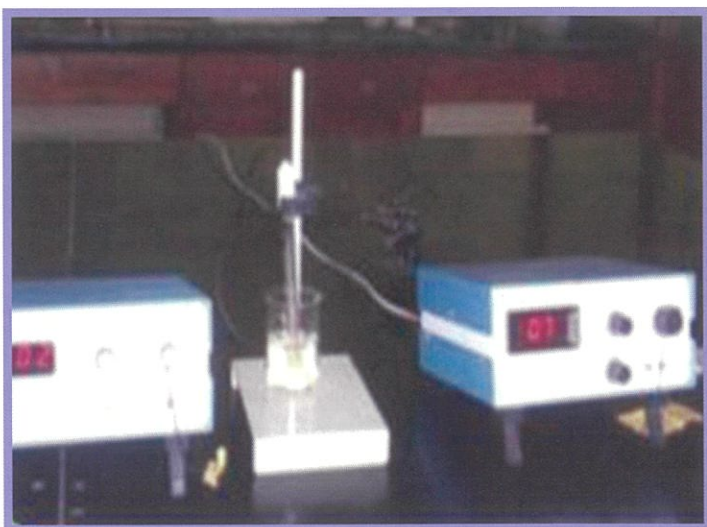
- LG-ArchiDesign Awards 2007 - Critics Choice Awards Category for the best written work in Architecture: Dr. Ajay Khare for his book "*Temple Architecture of Eastern India*".

Department of Applied Chemistry



The Department has been involved in imparting pure and applied chemistry courses for undergraduate as well as postgraduate students. It is actively 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 members of the teaching faculty 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 and nanochemistry. 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.



Faculty Position

Designation	Professor	Associate Professor	Principal Scientific Officer	Reader	Lecturer (Sel Grade)	Lecturer	Associate Lecturer
Number in Position	01	01	01	03	--	02	02

Ongoing Projects

Sl. No.	Research Project Topic	P.I./Co-P.I	Funding Agency	Amount Sanctioned
1.	Water Quality monitoring & surveillance	Dr. Usha Jha	UNICEF	11.0 lakh
2.	Introduction of semi-micro analytical technique	Dr. Usha Jha	World Bank	20 lakh

Project(s) completed during the year 2007-08

Sl. No.	Research Project Topic	P.I./Co-P.I	Funding Agency	Amount Sanctioned
1.	Extraction of toxic/heavy metal ions using chemically modified silica gel	Dr. R. K Dey	University Grants Commission, New Delhi	0.8 lakh
2.	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
3.	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
4.	Colored candles and Bio-Diesel	Dr.P.K.Srivastava (P.I.)	KVIC Project	

Project(s) submitted during the year 2007-08

Sl. No.	Research Project Topic	P.I./Co-P.I	Funding Agency	Amount Sanctioned
1.	Synthesis and evaluation of polymeric adsorbents for the removal of fluoride	Dr. R. K. Dey	UGC, New Delhi	Screened for sanction
2	Development and applications of hydrolyzed and unhydrolyzed polyacrylamide grafted tamarind kernel powder (TKP) as flocculants for wastewater treatment	Dr. Sagar Pal	Department of Science and Technology, New Delhi	Screened for sanction

Publications by Faculty in Journals**International**

- Jha. U., and Shikha, D. et.al, "Microstructural investigation of alumina implanted with 30 kev nitrogen ions". Nuclear Instruments & Methods B, 264, 254-258, 2007.
- Jha, U., and Shikha, D. et.al. "Improvement in corrosion resistance of biomaterial alumina after 60 kev nitrogen ion implantation", international Journal of Advanced ceramics & Technology, (in press).
- Jha, U., & Deep Shikha et.al, "Microstructural and Biocompatibility investigation of alumina after 30 kev and 60 kev nitrogen ion implantation". Journal of surface coating & technology (accepted).
- Dey, R. K., and Airoidi, C. "Designed pendent chain covalently bonded to silica gel for cation removal". J. Hazardous Materials. (In Press DOI: 10.1016/j.jhazmat.2007.12.005).
- Dey, R. K., Patnaik, T., and Mohapatra, N. "Removal of heavy metal ions using new chelating material containing N, O, and S donor sites". Separation Science and Technology, 42, 1, 2007.
- Pal, S., Mal, D., and Singh, R. P. "Characterization of cationic starch: an efficient flocculating agent". Journal of Applied Polymer Science (In Press DOI: 10.1002/app. 27623) 2007.

- Haley, W. B. E., Lobland, H., Pal, S., and Singh, "R.P. Flocculation of Iron and Manganese Ore-containing suspensions". Polymer Engg. & Sci, 2007. (In Press).
- Brostow, W., Pal, S., and Singh, R. P. "A model of flocculation", Materials Letters, 61, 4381–4384, 2007.
- Pal, S., Mal, D., and Singh, R. P. "Synthesis and characterization of cationic guar gum: A high performance flocculating agent". Journal of Applied Polymer Science, 105, 3240–3245, 2007.

National

- Mishra, S., Singh, G., Jha, U., and Ganguly, S. "Leaching studies of coal combustion residues of Balco Captive power plant". Journal of Indian Chemical Society (Accepted for Publication).
- Mishra, S., and Singh, G. "Environmental management of coal combustion residues from thermal power plants in India". The Alternative (Accepted for publication)

Publications by faculty in Seminar Proceedings

International Events

- Pal, S., and Sen, G. "Development and application of a novel polymeric flocculant based on polyacrylamide grafted carboxymethyl tamarind (CMT-g-PAM)". Accepted for ORAL presentation at POLYCHAR – 16, Lucknow, February 17 – 21, 2008.
- Sen, Gautam., Sangeetha, D., and Pal, Sagar. "Investigation on effects of operational and environmental factors on the efficiency of reverse osmosis based separation processes, based on polycarbonate membrane". POSTER presentation, POLYCHAR – 16, Lucknow, February 17 – 21, 2008.
- Singh, R. P., Brostow, W., Haley, E., Lobland, H., and Pal, S. "High performance flocculants based on polysaccharides: Materials and mechanism". Paper Presentation. The International conference IUMRS-ICAM conference, Bangalore, October 8-13, 2007.
- Brostow, W., Pal, S., Haley, E., Lobland, H., and Singh, R. P. "Drag reduction in turbulent flow through conduits". Paper presentation. The International conference IUMRS-ICAM conference, Bangalore, October 8-13, 2007.
- Brostow, W., Haley, E., Lobland, H., Pal, S., and Singh, R. P. "Reducing mechanical degradation of Polymeric drag reducers in turbulent flow". Paper presentation. The International Conference POLYCHAR – 15, Federal University of Rio de Janeiro, Brazil, April 17-20, 2007.
- Mishra, S., and Singh, G. "Comprehensive characterization of coal combustion residues from Chandrapura thermal power station". Paper presentation. International Conference on Managing the social and environmental issues of coal mining in India, India International Centre, New Delhi, Nov, 19–21, 2007.
- Mishra, S., and Singh, G. "Characterization of fly ash from five different thermal power plants in India in terms of suitable utilization potential". POSTER presentation. POLYCHAR – 16, Lucknow, February, 17 – 21, 2008.

National Events

- Bhatnagar R.P., Thomas, T., Ojha, U., Ahmad, Y., Jalchhatri, M., and Srikar, D. "Microbial fuel cell: Direct conversion of biomass into electricity". National conference on new and renewable energy prospects and challenges, BIT Mesra, Ranchi, December 17-18, 2007.

- Kumar, S. "*Invited Lecture on Mesoporous Solids & Catalysis*" in the Conference on Recent Trend in Surface Science. at Indore, M. P., India September 14-15, 2007.
- Mishra, S., and Singh, G. "*Comprehensive characterization of coal combustion residues from thermal power stations of India*". National conference on Recent Trend in Surface India Science, at Indore, M. P., September 14-15. 2007.
- Mishra, S., and Singh, G. "*Eco-friendly utilization of coal combustion residues*". National conference on eco-friendly manufacturing processes. Dept. of Production Engg. , BIT-Mesra, Sept. '07.
- Mishra, S. "*Leaching characteristics of solid wastes from thermal power plants and comparison of toxicity, methodologies*". Accepted for 26th annual conference of Indian Council of Chemists.
- Mishra, S. "*Studies on characterization of CCR's from Korba super thermal station*". Accepted for 26th annual conference of Indian Council of Chemists.

Seminar(s)/ Symposium(s)/Short-term Course(s) attended by faculty members

National Events

- Kumar, S. Participated and given an Invited Lecture in the Conference on "*Recent Trend in Surface Science*" at Indore, M. P., India September 14-15, 2007.
- Bhatnagar, R. P. participated in the National conference on "*New and renewable energy prospects and challenges*", at BIT Mesra, Ranchi, December 17-18, 2007.
- Pal, S. participated in the National Conference and Exhibition on "*Safe and Affordable Technologies for Household Water Purification and their Management*", organized by University of Lucknow, sponsored by Technology System Group, Department of Science & Technology, and New Delhi 28-29th June 2007.
- Agarwal, G. K. participated at the one-day seminar on "*HPCL*" hosted by WATERS, Bangalore at the Hotel Ashoka, Ranchi. 2007.

Awards/citations bestowed on Faculty members and students

Sl. No.	Name of Faculty/ Student	Awards/Citations	Research/Presentation
1.	Dr. Usha Jha, Professor	Nomination as Senate member of Birsa Agricultural University, Ranchi	--
2.	Mr. G. K. Agarwal, Associate Lecturer	Associate member of Royal Society of Chemistry, United Kingdom	Environmental Exposure and Health
3.	Dr. R. K. Dey	I. TWAS Postdoc Fellowship, Brasil (2006) II. INSA Visiting Fellowship, New Delhi (2006)	i. Chemical modification of mesoporous silica materials. ii. Enzymatic synthesis of biodegradable polymeric materials
4.	Dr. Sagar Pal	Short listed for DAAD Fellowship, Germany (For Academic Year 2008-09)	Development of hydrolyzed and unhydrolyzed polyacrylamide grafted polysaccharides and their applications as flocculants, drag reducers and viscosifiers.

Other Informations

Community Development Programmes have been initiated in the following areas

- Food quality monitoring in and around BIT-Mesra.
- Water quality monitoring in and around BIT, Mesra
- Environmental awareness drive in and around BIT, Mesra
- Adulteration and quality testing of food stuff materials.
- Mishra, S. was invited as Guest Faculty to take classes for M. Phil (Environmental Science) at Indian School of Mines University, Dhanbad.
- Mishra, S. delivered an Invited Lecture as a resource person on “Quantum mechanical modelling” at staff development programme organized by Dept. of Pharmaceutical Sciences, 2nd – 14th May, 2007.
- Pal, S. delivered an Invited Lecture as a resource person on “Green Chemistry” at staff development programme organized by Dept. of Pharmaceutical Sciences, 2nd – 14th May, 2007.
- Kumar, S. delivered an Invited Lecture in the Conference on Recent Trend in Surface Science – 2007 (RTSS – 07) during September 14-15 at Indore, M. P., India.

Ph .D. Registrations

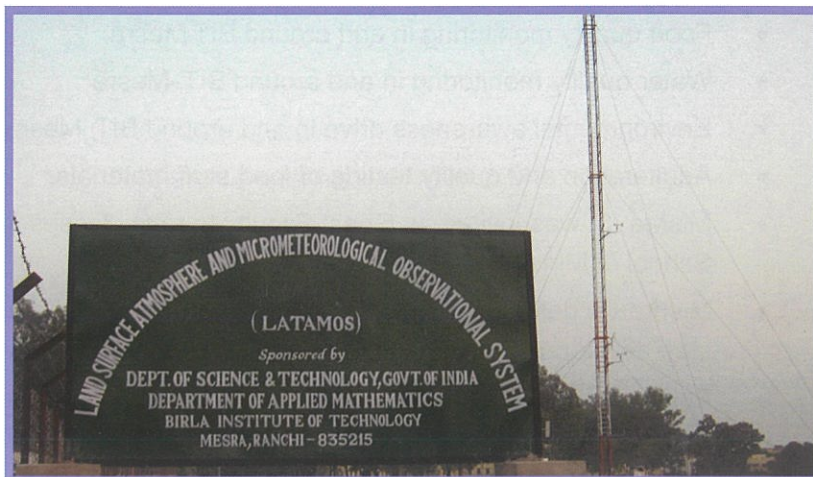
Sl. No.	Name of Research Scholar/ Reg No./Guide (s)	Qualification/ Joining Year	Research Topic
1.	Mr. Gautam Sen / PhD/70/06 / Dr. Sagar Pal, Lecturer, Dept. of Applied Chemistry, BIT-Mesra	M. Sc. / 2007	Synthesis and charac-terization of hydrolyzed and unhydrolyzed polyacrylamide grafted carboxymethyl starch (CMS-g-PAM) and their application as novel polymeric biomaterials.
2.	Mr. Sajal Chakravorthy/08-2006/ Dr. Usha Jha, Prof.; Dept. of Applied Chemistry, BIT-Mesra, Dr. V. N. Balaji (JBL, Bangalore)	M.Sc / 2006	Studies of Polymeric Technique
3.	Mrs. Tiji Thomas/ PhD/09/2006/ Dr. R. P. Bhatnagar, Principal Scientific Officer, Dept. of Applied Chemistry, BIT-Mesra	M.Sc / 2006	Microbial current generation from organic waste and its application for waste water treatment.
4.	Ms. Rajni Agarwal/55-2006/ Dr. Usha Jha, Prof.; Dept. of Applied Chemistry, BIT-Mesra. Dr. S. K. Sharma (BITEC, Jaipur)	M.Sc / 2006	Physico-Chemical nearby Areas.
5.	Mr. Ajay Kumar Singh/53-2005/ Dr. Usha Jha, Prof.; Dept. of Applied Chemistry, BIT-Mesra Dr. U. K. Dey, Prof.; Dept. of Mining Engg, BIT-Sindi	M.Sc / 2005	Process Optimization and designing of the best feasible method for treatment of oil, grease coal mines

Ph. D. Awarded : Name of the Scholar: Mrs. Vinita Arora, Dec '07
Guide: Dr. (Mrs) U. Jha

Department of Applied Mathematics

The Department of Applied Mathematics is one of the oldest departments of the Institute and handles all the mathematics courses offered in different branches of Engineering, Management, Pharmaceutical Sciences, Architecture and the University Polytechnic.

The Department has started the Post Graduate M.Tech (Scientific Computing) programme since 2002 and has also established a Land Surface Observational System at the Institute Campus.



General Information

- (i) Additional Equipment - 04
- (ii) Additional of Faculty Members - 02
- (iii) Additional of Technical Staff - 06
- (iv) Relieving of faculty members - 01
- (v) Additional research projects - 03
- (vi) Additional Ph.D. registration - 07

No. of students enrolled semester-wise in different programmes (UG and PG level)

- P.G. Semester III: 02
- P.G. Semester II: 09



Brief description of Ongoing projects

Sl. No	Research Project Topic	PI / Co-PI	Funding Agency	Amount Sanction (in lakhs)
1.	Observation study of land surface atmosphere interaction in the monsoon through along its active eastern end	Prof. N. C. Mahanti, Dr. Manoj Kumar	D.S.T., Government of India	Rs. 60.29
2.	Green's function, existence and asymptotic behaviour of periodic solutions of functional differential equations	Dr. S. Padhi, Dr. S.K. Samal	National Board of Higher Mathematics, Department of Atomic Energy, Government of India	Rs. 5.30

3.	Development of forest fire forecasting system for Jharkhand state using statistical models, GIS and remote sensing	Dr. Manish Trivedi, Dr. Manoj Kumar	NRDMS, D.S.T., Government of India	Rs. 25.49
4.	Energy & Mass & Exchange Processes in vegetative systems	Dr. Manoj Kumar	SAC, ISRO Ahmedabad	Rs. 4.5

Publication by Faculty in Journals

International

- Padhi, S. "Oscillation and Asymptotic Behaviour of Solutions of Second Order homogeneous Neutral Differential Equations with Positive and Negative Coefficients", Functional Differential Equations, 17, No. 2-3-4, 363-371, (2007).
- Sathiamoorthy, M., Basak, T., Roy, S., and Pop, I. "Steady natural convection flows in a square cavity with linearly heated side walls". Journal of Heat and Mass Transfer, 50, 766-775, (2007).
- Sathiamoorthy, M., Basak, T., Roy, S., and Pop, I. "Steady natural convection flows in a square cavity filled with porous medium for linearly heated side walls". International Journal of Heat and Mass Transfer, 50, 1892-1901, (2007).
- Padhi, S., and Julio, G. D. "Oscillation of Functional Differential Equations Of n-th Order With Distributed Deviating Arguments", Journal Contemporary Math.1(1), (2007), 11-24.
- Padhi, S. "Asymptotic behaviour of oscillatory solutions of n-th order differential equations", Fasc. Math., 37 49-55, (2007),
- Padhi, S. "Oscillation and asymptotic behaviour of solutions of second order neutral differential equations with positive and negative coefficients", Fasc. Math. 38, 105-114. (2007).
- Padhi, S., and Chuanxi, Qian. "On asymptotic behaviour of oscillatory solutions of fourth order differential equations". Electron. Journal Differential Equations 2007(2007), N0. 22, 1-5.
- Padhi, S., Trivedi, M., and Chakraborty, S. "Use of computer experiments to study the qualitative behaviour of the solutions of second order neutral differential equations", Interstat, October, No.3, 1-8, (2007).
- Mishra, B. K., and Saini, D. "Mathematical Models on Computer viruses. Applied Mathematics and Computation", Elsevier, 187(2), 929-936, 2007.
- Mishra, B. K., and Saini, D. "SEIRS epidemic model of transmission of malicious objects in computer network". Applied Mathematics and Computation, Elsevier, 188 (2), 1476-1482, 2007.
- Mishra, B. K. and Jha, N. "Fixed period of temporary immunity after run of anti-malicious software on computer nodes". Applied Mathematics and Computation, Elsevier, 190 (2), 1207-1212, 2007.
- Mishra, B. K., and et al. "Differential susceptibility-infectiousness epidemic model of propagation of malicious agents with self replication in a computer network". Applied Mathematics and Computation, Elsevier, doi:10.1016/j.amc..03.052, 2007
- Mishra, B. K., and Verma, N. "Magnetic effect of Blood flow in a multiple stenosed artery". Applied Mathematics and Computation, Elsevier, doi:10.1016/j.amc.04.032, 2007

- Mishra, B. K. "Generality of the final size formula for infected nodes due to the attack of malicious agents in a computer network". Applied Mathematics and Computation, Elsevier, doi:10.1016/j.amc.2007.04.071
- Mishra, B. K. "Mathematical Modeling of Presynaptic events of a Neuron". Research Journal of Applied Sciences, 3(11), 1296-1298, 2007.
- Mishra, B. K., and Panda, T. C. "MHD Blood flow in a single stenosed artery". The Mathematics Education, Vol. XLI, No.1, March 2007.
- Mishra, B. K., and Shekhawat, S. S. "Casson fluid model of blood flow through an arterial stenosis". The Mathematics Education, Vol.XLI, No2, June 2007.
- Mishra, B. K., and Verma, N. "Mathematical model of Blood flow through a tapered artery with stenosis". The Mathematics Education, Vol. LXI, No. 3, September 2007.
- Mishra, B. K., and Saini, D. "Design Patterns and their effect on Software Quality", Vol.5, No.1, January 2007, ACCST Research Journal.
- Sathiyamoorthy, M., Basak, T., Roy, S., and Mahanti, N. C. "Effect of the Temperature Difference Aspect Ratio on Natural Convection in a Square Cavity for Non-Uniform Thermal Boundary Conditions", Journal of Heat Transfer-Transactions of the ASME – Vol. 129, Issue 12, pp. 1723-1728, December 2007.
- Kumar, M., and Pandey, V. "Validation of different Evapotranspiration models over semi arid region of India". Accepted for the publication and to be published in Int. J. IJMA, Korea. February, 2008.
- Chakraborty, S., Wahi, C., Sourabh, S. K., Saraswati, L. R., and Mukherjee, A. "On the Philosophy of Statistical Bounds: A Case Study on a Determinant Algorithm", Journal of Modern Mathematics and Statistics, Vol. 1(1-4), 15-23, 2007,
- Chakraborty, S. and Rastogi, T. "How many passes does the bubble sort make if the input is a pps sample with replacement. A study in simulation", International Journal of Mathematical Modeling, Simulation and Applications, Vol. 1, issue 1, 2007.
- Kaur, P. and Chakraborty, S. "A New Approach to Vendor Selection Problem with Impact Factor as an Indirect Measure of Quality", Journal of Modern Mathematics and Statistics, Vol. 1(1-4), 8-14. 2007.
- Maurya, A. K., and Chakraborty, S. "On a user friendly code for visualizing higher dimensional data using parallel coordinates", Research Journal of Applied Sciences, 2(10), 2007, 1057-1059
- Chakraborty, S. "Can a Randomized Binary search have an $O(1)$ Complexity at least in practice". Applied Math. and Compu. , vol. 189(2), 1884-1888, 2007.
- Trevedi, M., Padhi, S., and Chakraborty, S. "Efficient estimation Using Deep-Post-stratification Under Two-Way $r \times r$ Set-up", Statistics in Transition International Journal of Polish Statistical Association, Volume 8, Number 2, pp. 311-330, (2007).
- Trevedi, M., Padhi, S., and Chakraborty, S. "Efficient Estimation in Post – Stratification Using Prior Information, International Journal of Mathematical Modelling", Simulation and Applications, Vol. 1, Issue 1, November, 2007.

National Journal

- Kumar, M., Pandey,V., and Shekh,A.M. "Surface layer simulation of semi arid region of India using LASPEX-97 data". J. Agrometeorol. Vol.9 (1). 2007.

- Mahanti, N.C., and Kumar, M. "Role of Mathematical Science in Meteorology". And Work is being done in BIT. BIT Magazine Magnum Opus, 63-64, 2007.
- Pradhan, A., Samal, S. K., and Mahanti, N. C. "Surface waves in a liquid filled porous solid layer bounded by eclectic half-space and liquid layer". Bulletin of Calcutta Mathematical Society, Vol. 100, No. 4, 2008.

Papers presented and Conferences Attended

- Padhi, S. delivered a lecture on the topic entitled On "asymptotic behaviour of solutions of third order delay differential equations in the 8-th Colloquium on Qualitative Theory of Differential Equations", Bolyai Institute, Department of Mathematics, University of Szeged, Hungary.
- Padhi, S. delivered a lecture on the topic entitled On "asymptotic behaviour of solutions of third order delay differential equations in the Seminar on Differential Equations in the Institute of Mathematics", Budapest University of Technology, Budapest, Hungary, from 29-30 June, 2007.
- Kumar, M., Mallik, C., and Mahanti, N.C. "Thermodynamic Estimation of the Annual Variation of the Planetary Boundary Layer in a Semi Arid Zone". Paper presented by Mr. Chinmay Mallick in 52nd Congress of ISTAM (An International Meet) held at IISC Bangalore from December 14-17, 2007.
- Kumar, M., Mahanti, N. C., Kumar, A., and Mallik, C. "Use of micrometeorological tower data in advancement of renewable energy resources". Lead paper presented by Prof. N. C. Mahanti in National Conference on New and renewable energy-Prospects and challenges held at BIT Mesra on December 17-18, 2007.

For Proceedings

- Kumar, M., Pandey, S., and Mahanti, N.C. "Water resource potentials of Jharkhand state", India. Proceed. of Pre-conference volume on International Conference (ICWFM, BUET, Bangladesh), p. 525-530. 2007.

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

- Padhi, S. Visited Department of Mathematics, Bolyai Institute, University of Szeged, Szeged, Hungary to work in collaboration with Prof. Tibor Krisztin.

Establishment of Micrometeorological Tower and Agrometeorological Observatory in BIT Campus

Department of Applied Mathematics has established Land surface observational system augmented with Agrometeorological / Micrometeorological observatory at BIT Main Campus, Mesra, Ranchi, sponsored by DST, Govt. of India. Land surface observational system contains 32 meter micrometeorological tower equipped with weather sensors at different logarithmic height viz. at 1, 2, 4, 8, 18 and 32 meter height. These sensors are slow response sensors as well as fast response sensors. Slow response sensors which are sensed at 1-minute average intervals are air temperatures, wind speed, wind vector (direction) and relative humidity. Albedometer is at (reflected shortwave radiation) at 32 mtr. height. Fast response sensor (CSAT3 Sonic anemometer) which kept at 10 m height sensed at 10Hz frequency (10 record in one second) and it gives all the three components of wind speed and sonic temperature. In addition to this, a separate 2.5 m stand has been erected for mounting of different components of radiation parameters i.e. incoming and reflected shortwave radiation, incoming and outgoing long wave radiation (Infrared radiation) and net balance of radiation as Net radiation. Soil moisture sensors are kept at surface, 10 and 20 cm depths, soil temperatures at the surface, 5, 10, 20, 40 and 100 cm

depths, and soil heat flux, which is one of the important energy balance component are at 2.5 and 5.0 cm depths. The automated rain gauge is also installed. All the data are being recorded through two data loggers (CR3000 and CR1000) containing multiplexers inside continuously. Potential evapotranspiration, different energy balance components (Sensible, latent and ground heat fluxes) having importance for monsoon activity, horizontal and vertical transport of mass exchange are also observed online.

The surface agrometeorological observatory contains Sun-shine recorder (For sunshine hours duration for a day), Cup counter anemometer for wind speed, wind vane for direction, Stevenson screen (In which four types of thermometers maximum, minimum, dry bulb-instantaneous, and wet bulb-temperature at which surrounding air has no more capacity to absorb moisture), self recording and non-recording rain gauges, dew gauge (Important for moisture partitioning for crop), soil thermometers at surface, 5, 10, 20 and 25 cm depths, grass minimum thermometers, and US Class A Pan evaporimeter for determination of potential evapotranspiration. Long term surface observatory data gives the climatological picture of a region which helps to classify the regions on climatically as well as agroecological classification can be done.

Department of Applied Mechanics

The Department of Applied Mechanics was initiated in 1995. 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.

The department is active in the areas of research namely Finite Element Method, Dynamics & Vibration , Composite Materials, Stress Analysis in Artificial Joints, Artificial Neural Network, Nanotechnology, Computer-aided design, Fluid Power and Hydraulic Controls.

Course Offered

PG Programme

- Master Of Engineering in Computer Aided Analysis & Design (CAAD)

The Department offered two subjects for all the BE students

- Engineering Mechanics
- Engineering Mechanics Lab.

Faculty position

Professor	Lecturer (Selection Grade)	Lecturer
2	1	3

Number of Student enrolled/registered with department

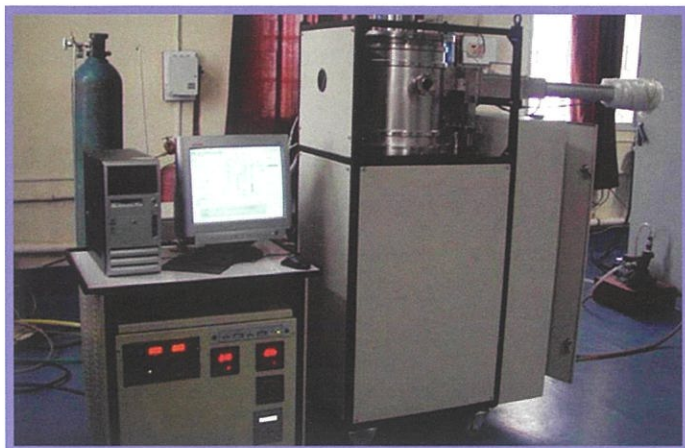
ME (CAAD) Programme

2007-08	No. of students
1 st . year	2
2 nd . year	4

ME Thesis submitted during the academic year 2007-08

- “Structural Analysis and Design Optimization of Piston –Slipper Assembly and the Yoke of a Swash Plate type variable displacement axial piston pump.” done by Dhiraj Bora guided by Mr. Kishan Chaudhuri
- “Three Dimensional Computational Fluid Dynamics Modelling and Thermal Stress Analysis of Friction Stir Welding Process” done by A.S.O.Seeram and guided by Mr. S. Muthukumaran
- “Studies on Constrained Layer Damping” done by Mohan J. Killani and guided by Dr. S. K. Jain
- “Computer Aided Modelling and Simulation of Molecular Based Devices” done by Polash Pratim Dutta and guided by Prof. A. K. Ray.
- “Heat Transfer Analysis of Friction Stir Welding Processes.” done by Gaurav Kaushik and guided by Mr. S. Muthukumaran
- “Simulation and Modelling of a VI for Defects Detection and Condition Monitoring of Antifriction Bearing using Labview.” done by Amit Kumar Pandey and guided by Prof. A. K. Ray.
- “Molecular Dynamics Simulation of Water Diffusion and Permeation Through Single Walled Carbon Nanotubes”. Done by Partha Pretim Borah and guided by Prof. A. K. Ray

Department of Applied Physics



The Department of Applied Physics was started in 1955 along with the establishment of this institute. During the past fifty two years of its existence, the students and faculty members of the Department have made themselves recognised nationally as well as internationally. The Department has well equipped laboratories and computing facilities to provide necessary Academic & Research support.

Courses offered

PG Course

- M. Tech. (New Materials and processing Technology)
- Ph. D. Programmes

Faculty Position

Designation	Professor	Principal Scientific Officer	Associate Professor	Reader	Lecturer Selection Grade	Lecturer	Scientific Officer	Assoc. Lecturer
No. in Position	4	1	1	2	1	5	2	1

Ongoing Projects

Sl. No	Investigators	Project Title	Funding agency	Date of sanction	Sanctioned amount in Lacs	Duration in years
1.	Dr. P. K. Barhai	Support for Research and Development Facilities of the Department of Applied Physics	DST	2003	25.00	5
2.	Dr. A. K. Srivastava	Effect of low temperature on Fracture toughness of Fibre Composites	AICTE	26/02/07	4.00	2

3.	Dr. A. K. Srivastava	Low temperature (-50°C) effect on behaviour of carbon/epoxy composites manufactured by VERITY Process	AR&DB	10/10/07	10.00	2
4.	Dr. S.Konar	Simulation and Analytical Investigation of Nonlinear Optical Pulse Propagation in Photorefractive Crystals.	DRDO	21/11/05	14.84	3
5.	Dr. S.Konar	FDTD Modeling of Photonic Crystal Fibers: Fundamental Properties and Device Applications.	DST	01/02/06	15.97	3
6.	S. Medhekar, P. K. Barhai	Investigation of the Effects of Higher Order Nonlinearities on Optical Pulse Propagation in Semiconductor Doped Glass Fibers and Waveguides.	BRNS	16/2/04	8.87	4
7.	S. Keshri	ESR study of magnetic homogeneity in thin films of colossal magnetoresistive manganites.	UGC	01/04/06	4.89	3
8.	S. K. Sinha P. K. Barhai D. C. Kothari	Oxidation Resistance Studies of Titanium Alloys in the Temperature Range 500-700°C: The effect of coating and trace element addition	AR&DB	20/09/05	5.989	3
9.	S.K.Rout, P.K.Barhai	Developments of nano crystalline high permittivity lead free materials for microwave applications.	DST	07/11/07	23.35	3

Projects completed during the years 2007-08

Sr. No.	Investigators	Project Title	Funding agency	Date of sanction	Sanctioned amount in Lacs	Duration in years
1.	Dr. A. K. Shrivastava	Effect of low temperature on mechanical properties of composites	AR&DB	26/05/04	7.68	2
2.	Dr. Medhekar & Dr. P. K. Barhai	Theoretical Investigation of Induced Nonlinear Optical wave guides and Devices	UGC	1/7/03	3.10	3.5
3.	M. K. Sinha, S. Keshri, B. Pathak	Development and Characterization of thin film thermocouples for the aerospace applications.	ISRO	2004	10.86	3

Current areas of research activities in the Department

Plasma and Laser Material Processing, Surface Engineering with Plasma deposition, Anodic vacuum arc deposition of thin films, DLC, Nanocrystalline superhard coatings, Plasma Torch Parameters and Applications in Material Processing, High Temperature Superconductivity, Colossal Magnetoresistive materials, Dilute Magnetic Semiconductors, Piezoelectric materials, Electronic Composite materials, Fiber Composite materials, Holography for NDE testing, Nonlinear Optics, Soliton and light propagation, Optical communication, Photonic Crystals, Photonic Crystal Fibers, etc.

Seminar / Conference / Short Term course conducted by the Department

- "National Technology Day-2007" was jointly organized by Birla Institute of Technology Mesra, Ranchi and The Institution of Engineers (India), Jharkhand State Centre on 12th May 2007. Barhai, P. K. was the convener and Medhekar, S., and Sarkar, G. G. were the coordinators of the programme.
- "Eastern Regional Science & Technology, Council Meeting" was held at Birla Institute of Technology, Mesra during April 9-10, 2007. The meeting was organized by the Department of Science and Technology, Jharkhand in collaboration with DST, New Delhi. Barhai, P. K. was the nodal officer and Andrews, J. T., & Medhekar, S. were the co-coordinators of the programme.

Publications made by the faculty members during 2007-2008

- Sharma, R., Barhai, P. K., Kumari, N. "Corrosion resistant behaviour of DLC films". Thin Solid Films, 2007 (In press).
- Rout, S. K., Barhai, P. K., and Sinha, E. "Diffuse phase transition of $\text{BaTi}_{0.6}\text{Zr}_{0.4}\text{O}_3$ relaxor ferroelectric ceramics". Phase Transition (Accepted.)
- Shikha, D., Jha, U., Sinha, S. K., Barhai, P. K., Kalavathy, S., Nair, K. G. M., Dash, S., Tyagi, A. K., Kothari, D. C. "Improvement in corrosion resistance of biomaterial alumina after 60 keV nitrogen ion implantation", International Journal of Applied Ceramics and Technology, 2007 (Accepted).
- Shikha, D., Jha, U., Sinha, S. K., Barhai, P. K., Sarkhel, G., Nair, K. G. M., Dash, S., Tyagi, A. K. and Kothari, D. C. "Microstructural investigation of alumina implanted with 30 keV nitrogen ions", Nucl. Instr. & Meth, 2007 (Accepted).
- Bhattacharya, R. and Konar, S. "Design of a Photonic Crystal Fiber With Zero Dispersion Wavelength Near $0.65\mu\text{m}$ ". Fiber and Integrated Optics (in Press)
- Mishra, M. and Konar, S. "High Bit Rate Dense Dispersion Managed Optical Communication Systems With Distributed Amplification", Progress In Electromagnetics Research, PIER 78, 301–320, 2008.
- Biswas, A., Zerrad, E., and Konar, S. "Soliton perturbation theory for the generalized fifth-order KdV equation". Communications in Nonlinear Science and Numerical Simulation, 13, 1281-1286, 2008.
- Asif, N., Swetanshumala, and Konar, S. "Photovoltaic Spatial Soliton Pairs in Two-Photon Photorefractive Materials". Physics Letts. A, 372, 735-740, 2007.
- Konar, S., Jana, S., and Woo-Pyo Hong; "Two-Component Spatial Holographic Solitons Supported by Cross Phase Modulation". Physica Scripta, 76, 470–474, 2007.
- Jana, S., Konar, S. and Mishra, M. "Soliton Switching in Fiber-Coupler with Periodically Modulated Dispersion, Coupling Constant Dispersion and Cubic Quintic Nonlinearity". Z. Naturforsch. A (in Press)

- Konar, S., and Bhattacharya, R. "*Design of Photonic Crystal Fibers for Dispersion Compensation over S, C and L Bands*". Optoelectronics And Advanced Materials – Rapid Communications, 1, 442, 2007.
- Mishra, M., and Konar, S. "*Interaction of Solitons In A Dispersion Managed Optical Communication System With Asymmetric Dispersion Map*". Journal of Electromagnetic Waves and Applications, 21, 2049-2058, 2007.
- Shwetanshumala, S. Konar, A. Biswas. "*Spatial optical solitons in inhomogeneous elliptic core saturating nonlinear fiber*". Optik (in Press).
- Biswas, A., Konar, S. "*Soliton perturbation theory for the fifth order KdV-Type Equations with power law Nonlinearity*"; Applied Mathematics Letters, 20, 1122–1125, 2007.
- Biswas, A., Konar, S. "*Soliton perturbation theory for the general modified Degasperis-Process Camassa–Holm Equation*". International Journal of Modern Mathematics, 2, 35-40, 2007.
- Konar, S., Jana, S., and Shwetanshumala. "*Incoherently coupled screening photovoltaic spatial solitons in a biased photovoltaic photo refractive crystals*". Optics Communications, 273, 324 -333, 2007.
- Biswas, A., Zerrad, E., and Konar, S. "*Stochastic Perturbation of Dual Power Law Optical Solitons*". Optical Engineering, 46, 055005, 2007.
- Konar, S., Mishra, M., and Jana, S., "*Nonlinear Evolution of cosh-Gaussian Laser Beams and Generations of Flat Top Spatial Solitons in Cubic Quintic Nonlinear Media*"; Physics Letters, A 362, 505-510, 2007.
- Jana, S., and Konar, S. "*A New Family of Thirring Type Optical Spatial Solitons via Electromagnetic Induced Transparency*". Physics Letts; A 362, 435-438, 2007.
- Biswas, A. Ren, H., and Konar, S. "*Stochastic Perturbation of Power Law Optical solitons*"; International journal of Theoretical Physics, 46, 1112-1123, 2007.
- Biswas, A., and Konar, S. "*Collisions of Optical Solitons in Non Kerr Law Media*"; Organic Electronics, 8, 206-226, 2007.
- Biswas, A., and Konar, S. "*Soliton Perturbation Theory for the Generalized Benjamin-Bona-Mahony Equation*"; Communications in Nonlinear Sciences and Numerical Simulations, 13, 703-706, 2008.
- Biswas, A., and Konar, S. "*Soliton Perturbation Theory for the Compound KdV Equation*"; International journal of Theoretical Physics, 46, 237-243, 2007.
- Biswas, A., and Konar, S. "*Intra Channel Collision of Dual Power Law Optical Solitons*"; Int. J. Theoretical Phys., 46, 161-173, 2007.
- Biswas, A., Ren, H., & Konar, S. "*Stochastic perturbation of non-Kerr law optical solitons*", Optik, 118, 471-480, 2007.
- Paltani, P. P. and Medhekar, S. "*Synchronous Couplers Made of Symmetric and Asymmetric Slabs*". Nonlinear Optics, Quantum Optics, 36, 129-145, 2007.
- Medhekar, S., and Paltani, P. P. "*All-Optical Switching and Tunable Wavelength Filtering in Grating Assisted Directional Coupler Nonlinear Optics*"; Quantum Optics, 36, 81-90, 2007.
- Sarkar, R. K., and Medhekar, S. "*Spatial Solitons of desired intensity and width and their Self-Tapering / Uptapering in Cubic Quintic Nonlinear Medium*". Physica Scripta, 76, 683, 2007.

- Medhekar, S., Sarkar, R. K., and Paltani, P. P. "Soliton Pairing of Two Coaxially Co-Propagating Mutually Incoherent 1-D Beams in Kerr Type Media". *Optica Applicata*, 37, 243, 2007.
- Keshri, S., Dayal, V., and Poddar, A. "Effect of γ -irradiation on thermoelectric power of $\text{Bi}_{1.2}\text{Pb}_{0.33}\text{Sr}_{1.54}\text{Ca}_{2.06}\text{Cu}_3\text{O}_{10+\delta}$ ". *Indian Journal of Cryogenics*, (In Press).
- Keshri, S., Kraidenov, V. F., Dayal, V., and Joshi, L. "Electrical Properties of $\text{La}_{0.67}\text{Ca}_{0.33}\text{Mn}_{0.99}\text{Fe}_{0.01}\text{O}_3$ under Pressure". *International Journal of Material Science* 2, 191–199, 2007.
- Keshri, S., and Dayal, V., "Structural and electrical transport properties of nanosized $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ sample synthesised by a simple low-cost novel route". *Pramana*, (In Press).
- Keshri, S., Dayal, V., Joshi, L. "Influence of Fe doping on electrical properties of LCMO", *Phase Transitions*, 81, 17–28, 2008.
- Dayal, V. and Keshri, S. "Structural and Magnetic properties of $\text{La}_{0.67}\text{Ca}_{0.33}\text{Mn}_{(1-x)}\text{Fe}_x\text{O}_3$ ($x=0-0.07$)"; *Solid State Communication*, 142, 63-66, 2007.
- Dayal, V., Keshri, S., Saha, A., and Kishan, H. "Effect of γ -irradiation on novel properties of polycrystalline $\text{Bi}_{1.2}\text{Pb}_{0.33}\text{Sr}_{1.54}\text{Ca}_{2.06}\text{Cu}_3\text{O}_y$ superconductor": *Radiation Effects and Defects*, 162, 2007.
- Keshri, S., and Dayal, V. "Low Field AC-Susceptibility Study on γ -Irradiated $\text{Bi}_{1.2}\text{Pb}_{0.33}\text{Sr}_{1.54}\text{Ca}_{2.06}\text{Cu}_3\text{O}_{10+\delta}$ Superconductor": *Phase Transitions*, 80, 243-251, 2007.
- Paul, R. K. "Novel approach to Abel inversion", *Rev. Sci. Instrum.* 78, 093-701, 2007.
- Rout, S. K., Badapanda, T., Sinha, E., Panigrahi, S., Barhai, P. K., Sinha, T. P. "Dielectric and phase transition of $\text{BaTi}_{0.6}\text{Zr}_{0.4}\text{O}_3$ ceramics prepared through a soft chemical route". *Appl. Phys. A*. (Article DOI: 10.1007/s00339-007-4366-1)
- Badapanda, T., Rout, S. K., Panigrahi, S., Sinha, E., and Sinha, T. P. "Ferroelectric phase transition of $\text{Ba}_{1-x}\text{Sr}_x\text{Ti}_{0.6}\text{Zr}_{0.4}\text{O}_3$ ceramics". *Phase Transitions*. (Accepted).
- Sinha, E., Panigrahi, S., and Rout, S. K. "Effect of neutron irradiation on structural, thermal and mechanical properties of jute fibre". *J. Appl. Poly. Sc.* (Revised).
- Sinha, E., and Rout, S. K. "Influence of fibre-surface treatment on structural, thermal and mechanical properties of jute". *J. Mat. Sc.* (In press, Article DOI : 10.1007/s10853 - 007 - 2115 -7).
- Mahapatra, S. K., Banerjee, I., Barhai, P. K., Babreker, A. A. Nath, B. B., Bhoraskar, V. N., Dhole, S. D. "20 keV energy electron induced breaks in chromatin materials for Dosimetry & radiotherapy applications". *Journal of Medical Physics*, 32, 18, 2007.
- Banerjee, I., Joshi, N., Karmakar, S., Kulkarni, N. V., Sahasrabudhe, S. N., Bhoraskar, S. V., and Das, A. K. "Effect of ambient pressure on the behavior of Ar-H2 transferred arc plasma column". *IEEE Transactions on Plasma Sciences* (In Press) 2007.

Seminar Proceeding

International

- Konar, S., and Bhattacharya, R. "Design of Dispersion Compensating Photonic Crystal Fiber for S, C and L Bands"; *ISMOT 2007 - Dec. 17-21, Monte Porzio Catone (Roma) – Italy*.
- Bhattacharya, R. and Konar, S., "Investigation of Dispersion Properties of a Microstructure Fiber with Zero Dispersion at $0.65 \mu\text{m}$ "; *ISMOT 2007 - Dec. 17-21, Monte Porzio Catone (Roma) – Italy*

- Konar, S. *"Optical Spatial Solitons in Nonlinear Media and Possible Applications (Invited Talk)"*, Advanced Display and Optoelectronics Technology, Catholic University of Daegu, South Korea, 29 January, 2007.
- Keshri, S., and Joshi, L. *"UV-VIS Spectrophotometry and FTIR of ZnO based Dilute Magnetic Semiconductors"*, Colloquium Spectroscopicum Internationale XXXV, Xiamen, China, page – 176, September 23-27, 2007,.
- Keshri, S., Joshi, L., and Rout, S. K. *"AC - Susceptibility and DC resistivity study of $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3 / \text{BaTiO}_3$ composites"*, Proceedings of 'International and INCCOM-6 Conference' on Future Trends in Composite Materials and Processing, IIT, Kanpur, December 12-14, 2007.
- Shikha, D., Jha, U., Sinha, S. K., Barhai, P. K., Nair, K. G. M., Das, S., Tyagi, A. K., Kalavathy, S., and Kothari, D. C. *"Microstructure and Biocompatibility investigation of alumina after 30 keV and 60 keV nitrogen ion implantation"*, International Conference of Surface Modifications of Materials using Ion Beams, 30th Sept to 5th Oct. 2007, held at TIFR, Bombay. (Communicated through SMMIM to the Surf. Coat. & Tech. Oct. 2007.
- Lal, A. K., Sinha, S. K., Barhai, P. K., Nair, K. G. M., Kalavathy, S., and Kothari, D. C. *"Effect of 60 keV nitrogen ion implantation on oxidation resistance of IMI 834 titanium alloy"*, International Conference of Surface Modifications of Materials using Ion Beams, 30th Sept to 5th Oct. 2007, held at TIFR, Bombay (Communicated through SMMIM to Surf. Coat. & Tech. Oct. 2007.)

National

- Sarkar, G. G. *"A case study of error minimization in a Laser Gauging System"*, Seminar on Application of Laser in Material Processing, page 91-93, Jan 18-19, 2008, Jadavpur University, Kolkata,.
- Sarkar, G. G. *"Laser Metrology – A fast expanding field"*, 7th Biennial Workshop on Application of Laser in Mechanical Industries, page 35-37, Jadavpur University, Kolkata, Jan. 17-18, 2008.
- Bhattacharya, R., and Konar, S. *"Design of microstructure fiber with zero distorsion at $0.65\mu\text{m}$ "*, Workshop on Physics and Technology of All Optical Communication Components and Devices; IIT KGP, 2007.
- Konar, S. *"Role Of Self Focusing Nonlinearity In Role Of Self Focusing Nonlinearity In Soliton Formation & Typical Numerical Soliton Formation & Typical Numerical Methods (Invited Talk)"*, Workshop on Self Focusing of EM Beams, Lucknow University. November 2007.
- Keshri, S., Joshi, L. *"Labview Virtual Instrument for Automatic Susceptibility Measurement"*, Proceedings of National Conference on Condense Matter Days, National Institute of Technology, Orissa, , page 19. 29th – 31st Aug., 2007.
- Keshri, S., Joshi, L. *"Preparation and Characterization of Thin Films and Nano particles of ZnO based Dilute Magnetic Semiconductors"*, in the proceeding of National Seminar on Advances in Materials Science held at Manonmaniam Sundaranar University, Tamil Nadu , page 72, 4th -5th Feb., 2008.
- Banerjee, I. et al; *"Synthesis of TiO_2 particles and its applications for degradation of medical wastes"* Proceedings of DAE-BRNS-PSI Symposium on Power Beams for Clean Environment & Processes (2006) pp 245.
- Banerjee, I. et al; *"Large scale synthesis of nano TiO_2 particles using transferred thermal arc plasma system"* Proceedings of 51st DAE Solid State Physics Symposium pp 1003, (2007).

- Mukherjee, S. K., Sinha, M. K., Pathok, B., Paul, R. K., and Barhai, P. K. *"Simultaneous measurement Technique for thermoelectric output and overall resistance of thin film thermocouples"*, Proceedings of National Conference on Condensed Matter Days, National Institute of Technology, Orissa, page 52, 29th – 31st Aug., 2007.

Patents during the year 2007-2008

- Developed a new Diamond like Carbon (DLC) coating device known as Grid based DC Discharge DLC Coating ' for producing DLC coating on both dielectric and conducting substrates. It produces coatings with very high hardness, corrosion resistant, inert film tribological applications. Inventor: (i) Barhai, P. K. (ii) Sharma, R. Application pending (ref.:1327/KOL/07 of dated 25/09/2007).
- Stepless, Clutchless gear ratio variation system. Inventor: Medhekar, S. Application pending (ref.:593/KOL/07 of dated 17/04/2007).
- All-Optical NOT/XOR, AND, NAND Gates, All-Optical Bistable, Astable Multivibrators and All-Optical Half Adder using Novel All-Optical Switching in a Mach-Zender Interferometer. Inventors: (i) Medhekar, S. (ii) Paltani, P. P. Application pending (ref.:791/KOL/07 of dated 22/05/2007).
- Extraction of one beam from a mixture of two coaxially co-propagating mutually incoherent beams of same frequency, Extraction of Data Bits loaded on one coherent beam mixed with the Data Bits loaded on another coherent beam of same frequency and Coherence Division Multiplexing (CDM). Inventors: (i) Medhekar, S. (ii) Paltani, P. P. Application pending (ref.:1192/KOL/07 of dated 30/08/2007).

Seminars/conferences/symposium/ short term courses attended by the faculty members

International Events

- Konar, S. was invited to deliver an Invited Talk on *"Optical Spatial Solitons in Nonlinear Media and Possible Applications"* in the Workshop on Advanced Display and Optoelectronics Technology, Catholic University of Daegu, South Korea, 29 January, 2007
- Keshri, S. has presented an talk in the *"Colloquium Spectroscopicum Internationale XXXV"*, held at Xiamen, China on 23-27 Sept, 2007
- Keshri, S. has presented an talk in the *"International and INCCOM-6 Conference on Future Trends in Composite Materials and Processing"*, held at IIT, Kanpur, India, on 12-14th Dec. 2007.

National Events

- Konar, S. has attended UKIERI Workshop on "Photonic Crystal Fibers, 5-7 January, CGCRI, Kolkata
- Konar, S. has attended *"Workshop on Self Focusing of EM Beams"* November 2007, Lucknow University. He delivered an invited talk on *"Role Of Self Focusing Nonlinearity In Role Of Self Focusing Nonlinearity In Soliton Formation & Typical Numerical Soliton Formation & Typical Numerical Methods"*.
- Keshri, S. has presented an talk in the National Seminar on *"Advances in Materials Science"* at Manonmaniam Sundaranar University, Tamil Nadu , 4th -5th Feb., 2008.
- Banerjee, I. has attended DAE-BRNS-PSI symposium on Ion beam Technology and applications, BARC, Mumbai.

Awards bestowed

- Kumar, R. was awarded a fellowship at University of Pisa, Italy under an Indo-Italian collaboration programme for the duration 01.01.2007 – 31.12.2007.
- Rout, S. K. has been selected for BOYSCAST award by DST, Govt of India in the financial year 2007-2008.
- Mahapatra, S. K. has been awarded a fellowship at University of Ajou, South Korea under Brain Korea 21 programme for the duration 20.11.2007 – 31.05.2008.

Other important matters

- Barhai, P. K. visited State University of Tomsk, Russia during July 28-Aug. 02, 2007 for the Institute Collaboration in the areas of Nanotechnology and High Energy Materials.
- An Indo-German (DST-BMBF) Project on Diamond Like Carbon (DLC) Technology has been sanctioned to Barhai, P. K. under Indo-German Bilateral Co-operation in Science & Technology.
- Konar, S. has been selected as a Senior Associate of International Center for Theoretical Physics (ICTP), Italy.
- Sarkar, G. G. has delivered an 'Invited talk' on Laser Metrology – A fast expanding field, 7th Biennial Workshop on Application of Laser in Mechanical Industries 18-19 Jadavpur University, Kolkata, Jan., 2008.
- Konar, S. has been invited to deliver an Invited Talk on "Optical Spatial Solitons in Nonlinear Media and Possible Applications" in the Workshop on Advanced Display and Optoelectronics Technology, Catholic University of Daegu, South Korea, 29 January, 2007.
- Konar, S. has become Reviewer of following renowned International Journals
 - ♦ IEEE Journal of Quantum Electronics(USA)
 - ♦ Optic Express (OSA)
 - ♦ Optics Communication (Elsevier)
 - ♦ Applied Physics Letters (USA)
 - ♦ Journal of Modern Optics
 - ♦ Progress in Quantum Electronics (Elsevier)
 - ♦ Journal of Electromagnetic Waves and Applications/ Progress in Electromagnetic Research (VSPP)
 - ♦ Indian Journal of Physics
 - ♦ Dynamics of Continuous, Discrete and Impulsive Systems; Series A (CANADA)
 - ♦ International Journal of Theoretical Physics (Springer)
 - ♦ Optics and Laser Technology (Elsevier)
 - ♦ Communications in Nonlinear Science and Numerical Simulations
 - ♦ Applied Mathematics Letters (Elsevier)

- Medhekar, S. has been invited to nominate a person for the International Advisory Committee for Optical Society of America (OSA) Publications. He has also been given an opportunity to vote on the final list of candidates.
- Medhekar, S. has become Reviewer for Chinese Optics Letters, published by renowned Optical Society of America.
- Medhekar, S. was invited to Redondo Optics, Los Angeles, CA and University of Hartford, CT for the collaborative research work to demonstrate the proof-of-concept (POC) feasibility of All-Optical Passive Transistor recently proposed by Dr. S. Medhekar and Ram Krishna Sarkar.
- Keshri, S. has become Reviewer for Physica C, published by renowned Elsevier Publisher.
- Keshri, S. has been invited as a 'Resource Person' in the Refresher Courses of UGC organised by Ranchi University, Jharkhand, on the topic "Women Empowerment in Science & Technology".
- Keshri, S. has become expert of NCERT for the 'School Level National Talent Search' Interview.
- Gupta, S. has been invited as a 'Resource Person' in the Refresher Courses of UGC organised by Ranchi University, Jharkhand, on the topic 'Quantum Mechanics'.

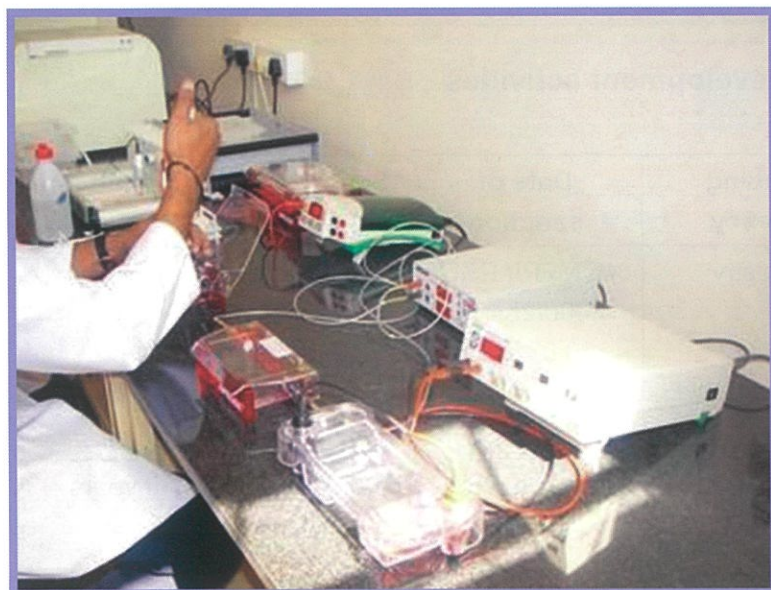
Department of Biotechnology

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 endeavour 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.

Six students enrolled in the Ph.D. programme in various fields of biotechnology such as Genomics, Proteomics and Transcriptomics, Plant microbial interactions, Industrial biotechnology and product development in the department and four



candidates have submitted their Ph.D. thesis in this year. About sixteen 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 NIT's, and Universities for setting up academic and research facility.

Course(s) offered

UG Course

- BE (Biotechnology)

P.G. Course

- M.Sc. (Bioinformatics)
- P.G. Diploma in Bioinformatics

Faculty Position

Designation	Professor	Associate Professor	Reader	Sr. Lecturer	Lecturer	Associate Lecturer
Number in Position	02	01	01	01	11	03

Number of students enrolled/registered with the Department (course-wise and semester-wise) as on 31/12/07.

UG- BE (Biotechnology)

Semester	Semester I	Semester III	Semester V	Semester VII
No. of Students	44	36	36	47

PG- M. Sc. (Bioinformatics) IPG Diploma in Bioinformatics

Semester	Semester I	Semester III
No. of Students	18	36

Academic Innovations, Research and Development activities**Ongoing Projects**

Sl. No	Project Title	Funding Agency	Date of sanction	Sanctioned Amount	Duration of project
1.	Development of probes for early detection of micro organisms 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 lacs	2 years
2.	Establishment of BTISNet Sub DIC at BIT MESRA, Ranchi	Dept. of Biotechnology, Govt. of India.	February 2004 BT/BI/04/065/04	46.20 lacs	5 years
3.	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 lacs	3 years

Project completed during the year 2007-2008

Sl. No	Project Title	Funding Agency	Date of sanction	Sanctioned Amount	Duration of project
1.	Study of biodiversity and molecular documentation of Guggul (<i>Commiphora wightii</i>) plants using plant biotechnological approaches.	Dept. of Biotechnology, Govt. of India.	22.10.04.	16.95 lacs	3 years

Seminars/Conferences/Short-term Courses conducted by the Department

- National workshop on Functional Genomics of Prokaryotes, September 10-15, 2007. (No. of Participants -20)
- Lecture by Dr. Eric Meyer, Research Director, CNRS, Paris on RNA based mechanism of non mendelian inheritance in ciliates, December 07, 2007. (No. of Participants -70)

Publications by faculty**Journals - International**

- Ranjan, A., Vidyarthi, A. S., and Poddar, R. "*Codon bias perspectives in phage therapy of Mycobacterium tuberculosis*". *silico Biology*, 7 (0030), 21-30, 2007.
- Shukla, P., Sharma, K., and Kango, N. "*Production of lipase by hyper-lipolytic Rhizopus oryzae KG-10 on low-value oil emulsions*". *Research Journal of Microbiology, Academic Journals, USA*, 2 (9): 671-677, 2007.
- Shukla, P., and Sharma, K. "*Ecological Screening For Lipolytic Molds And Process Optimization For Lipase Production From Rhizopus oryzae KG-5*". *J. Appl. Sci. Environ. Sanit. Sby. Vol: 2, No 2*, 35-42, 2007.

National

- Bandopadhyay, R., Mukhopadhyay, K., Chaudhuri, R.K. and Lavanya, C. "*NaOH treatment enhances PCR amplification using arbitrary primers of castorbean DNA*". *Indian Journal of Botanical Society*. 61, issue 2 2007. (In Press).

Proceedings - (Seminar/Symposium)**International**

- Pandey, D. M., Deb, R., Kumar, A., Vidyarthi, A. S., and Kim, S-R. "*Study on the Functional Characterization of low oxygen stress inducible genes in rice (Oryza sativa L.)*". 5th International Symposium on Rice Functional Genomics at Epochal, Tsukuba, Japan, Poster No. 110, October 15-17, 2007.
- Kumar, A., Shankaracharya, Vidyarthi, A.S., and Pandey D. M. "*In-Silico Analysis of Promoter Motif of Anoxia Inducible Genes in Rice Oryza sativa L.*". 5th International Symposium on Rice Functional Genomics at Epochal, Tsukuba, Japan, Poster No. 112. from October, 15-17, 2007.

National

- Vidyarthi, A. S. "*Serving to the Mankind through Biotechnology Education & Research*". QIP on Teachers Training, JNV, Mesra, June 3, 2007.
- Vidyarthi, A. S. "*Biopharmaceuticals: Production & Pre-formulation Investigations*". QIP on Pre-formulation investigations & their rationale in systematic development of drug delivery system, BIT, Mesra, May 27, 2007.
- Vidyarthi, A. S. "*Vision 2020: Roles of Biological Engineers*". QIP, HBTI Kanpur, May 13, 2007.
- Vidyarthi, A. S. "*Catalyzing Vision 2020: Roles of Pharmaceutical Bioengineers*". QIP on Recent Trends in Computer Aided Drug Design, BIT, Mesra, May 2, 2007.

- Vidyarthi, A. S. "Catalyzing Vision 2020: "Roles of Microbiologist and Bioengineers". AMI Meeting, BIT, Mesra, April 5, 2007.
- Pandey, D. M. "*Applications of DNA Microarray in Rice Functional Genomics. Bioinformatics Workshop, Biological Sequence Analysis and Its Application to Crop Improvement*" at Department of Bioinformatics, College of Basic Science, G. B. Pant University of Agri. and Technology, Pantnagar, Uttaranchal, November 16-17, 2007
- Shukla, P. "*Resource Development in Environmental Education with special reference to Environmental Biotechnology Career Prospects and Training opportunities*". National Teachers Science Conference 2007, National Council for Science and Technology Communication (NCSTC) DST, Govt of India, Dehradun, September 22-25, 2007.
- Shukla, P., and Shrivastava, S. "*Characterization of changes in hyphal morphology during xylanase production by Thermomyces lanuginosus SS-8*". 48 AMI Annual Conference at IIT Madras, December 18-21, 2007.

Seminar/ Symposium/ Short-term Course attended by faculty members.

- Vidyarthi, A. S. – Represented the state of Jharkhand in the "*Bangalore Bio 2007 – A biotech exhibition*" organized jointly by Vision Group on Biotechnology and Department of IT, BT and S&T, Government of Karnataka, Bangalore 7-9 June 2007.
- Vidyarthi, A. S. Chaired session on Biofuel Mechanics – "*International seminar on fluid Mechanics and Fluid Power*", BIT Mesra, December 12-14, 2007.
- Bandopadhyay, R. attended an orientation programme, organized by Academic Staff College, University of Calcutta, July 18- August 14, 2007.
- Bandopadhyay, R. attended "*Symposium on Advances in Structural Biology and Structure Prediction*" organized by CCMB, Hyderabad, February 23-25, 2007.
- Pandey, D. M., Kumar, M., and Poddar, R. attended short term training program on "*Application of MATLAB and Toolboxes for Real Time Solutions*". BIT Mesra, April 21-22, 2007.

Award/Nomination by important organizations.

Vidyarthi, A. S.

- Elected as "*Fellow of The Institutions*" of Engineers (India) on April 2, 2007
- Appointed as "*member of Board of Studies in Biotechnology*" for two years by Biju Patnaik University of Technology, Rourkela, Orissa and Dr. B. R. Ambedkar NIT, Jalandhar, Punjab.
- Nominated as "member of Editorial Board" of Research Journal of Microbiology and American Journal of Food Technology.

Shukla, P.

- Nominated as Editor-In Chief, Journal of Microbiology, Internet Scientific Publishers, USA
- Nominated as "*Reviewer and Member*", Editorial board of Journal of Applied Sciences in Environmental Sanitation, ITS, Indonesia
- Nominated as "*Member*", Editorial Board of Research Journal of Microbiology, Academic Journals Inc.
- Nominated as "*Central Executive council member*" of Association of Microbiologists of India (AMI)

Student Activities

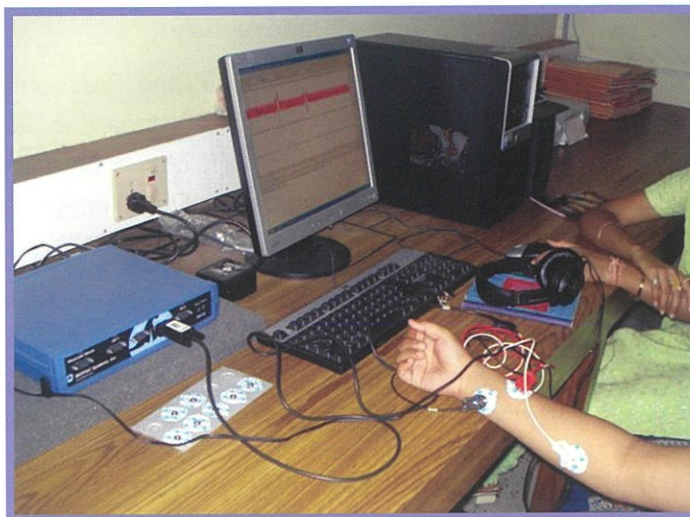
- Mr. Dinesh Prasad and Ms. Indu Kumari Renu, JRF in the department got research assignment for one year at University of Padova, Italy.
- Mr. Amit Rai, Gudena Krishna, and Prasoon Kumar, students of BE Biotechnology (Sem VIII) had participated and selected in “*Anveshan*” a Student Research Convention organized by Association of Indian Universities and BIT, Mesra on following innovative Research Project entitled “*Homology Modeling and DNA Microarray Data Analysis for some Probiotic Microorganisms for understanding intestinal Microbiome towards better health*”.
- Mr. A. S. Kumar, A. Bhatnagar, and Sweta Ojha, students of MSc. Bioinformatics (Sem IV) had participated and selected in “*Anveshan*” a Student Research Convention organized by Association of Indian Universities and BIT, Mesra on following innovative Research Project entitled “*Computational Enzyme Modeling Approach towards productivity by improving catalytic activity of the enzyme*”.

Infrastructural facilities during period

Association of Microbiologists of India, Jharkhand Chapter was established at the department in April 2007.

Department of Biomedical Instrumentation

The Department 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 continuous interaction with different hospitals such as Calcutta Medical and Research Institute at Kolkata to develop the technical skill and know how about the modern advanced medical equipment among the students.



Faculty members of this department have also started collaborative research work in different areas of Biomedical Engineering with the School of Biomedical Engineering and Department of Electronics Engineering, Banaras Hindu University, Varanasi (India). B. M. Birla Heart Research Centre, Kolkata and Central Institute of Psychiatry, Ranchi. Emphasis has also been laid on the application of soft computing such as artificial neural network, fuzzy logic, genetic algorithm etc. for the processing and expert computerized classification of different Biosignals.

Course offered

PG Course

- M.Sc. (Biomedical Instrumentation)

Faculty position

Designation	Professor	Lecturer	Associate Lecturer
Number in position	1	2	2

Number of students enrolled/registered with Department

Semester	No. of students
II nd semester	13
IV th semester	28
Ph.D.	3

Seminar(s)/conference(s)/short term course(s) conducted by the Department

- One-day workshop on “Advanced Biomedical Instruments” organized exclusively for staff and students of the Department, Advanced Diagnostic Center, Ranchi, November, 2007.

Publications by faculty in journals

- Dwivedi, A., Karan, B. M., Das, B. N., and Sinha, R. K. "*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 (Sweden) (Accepted).
- Aggarwal, Y., Karan, B. M., Das, B. N., and Sinha, R. K. "*Prediction of Heat-illness symptoms with the Prediction of Human Vascular Response in Hot Environment under Resting Condition*", Journal of Medical Systems (USA) (Published Online).
- Aggarwal, Y., Karan, B. M., Das, B. N., Aggarwal, T., and Sinha, R. K. "*Backpropagation ANN based Prediction of Exertional Heat-Illness*", Journal of Medical Systems (USA), 31: 547-550, 2007.
- Sinha, R. K., Aggarwal, Y., and Das, B. N. "*Backpropagation Artificial Neural Network Classifier to Detect Changes in Heart Sound due to Mitral Valve Regurgitation*", Journal of Medical Systems (USA), 31: 205-209, 2007.
- Sinha, R. K. "*Study of changes in some pathophysiological stress markers in different age groups of an animal model of acute and chronic heat stress*", Iranian Biomedical Journal (Iran), 11: 101-111, 2007.
- Sinha, R. K., and Aggarwal, Y. "*Depletion of serotonin synthesis with p-CPA pretreatment alters EEG in urethane anesthetized rats under whole body hyperthermia*", Iranian Biomedical Journal (Iran), 11: 33-39, 2007.
- Sinha, R. K., Aggarwal, Y., and Das, B. N. "*Backpropagation artificial neural network detects changes in electro-encephalogram power spectra of syncopic patients*", Journal of Medical Systems (USA), 31: 63-68, 2007.
- Sinha, R. K. "*An approach to estimate EEG power spectrum as an index of heat stress using backpropagation artificial neural network*", Medical Engineering and Physics (UK), 29: 120-124, 2007.

Publications by faculty in seminar proceedings

International Events

- Aggarwal, Y., Sinha, R. K., Karan, B. M., and Das, B. N. "*Circuit Modeling Approach to Analyze the Effect of High Heat on Thermoregulatory Control Mechanism in Human*". International Conference on Control and its Applications organized by SIAM, San Francisco, California on June-29-July-01, 2007.

National Events

- Aggarwal, Y., Sinha, R. K., Karan, B. M., and Das, B. N. "*Circuit Modeling Approach to Model the Skin Blood Flow in the Thermoneutral Zone of Human Body Temperature Regulation*". All India Seminar-2007 on Achievements and Challenges in Electronics and Telecommunication Engineering, Organized by The Institution of Engineers (India), Jharkhand State Center, Ranchi, January 20-21, 2007.

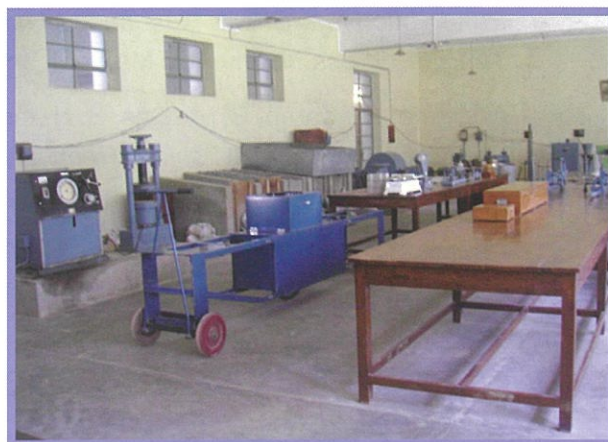
Seminar(s)/Symposium(s)/Short term course(s) attended by faculty members

National Events

- Das, B. N., Sinha, R. K., Kumar, S., Das, S. K., and Aggarwal, Y., Participated in two day workshop on "Development in Power Electronics Technology", Department of Electrical and Electronics Engineering, Birla Institute of Technology, Mesra on 04-05 November, 2007.

Department of Civil Engineering

The Department offers undergraduate degree course, postgraduate degree course with soil mechanics as specialization for full time scholars, and a postgraduate degree course with structural engineering as specialization as continuing education for working engineers. The department has extended its postgraduate course for Field Engineers engaged in road project in Jharkhand since monsoon session 2002 to support the quality development in the state. The department also offers adequate facilities for research work, the faculty members are actively engaged in research and consultancy work



and all students of the department have ample opportunity for active involvement. Both undergraduate and post graduate students are trained in computer applications in Civil Engineering problems and the latest software are made available to them. Major areas of current research in the department include composite materials, soil structure interactions, deep foundation system and magneto hydrodynamics.

The department possesses well equipped laboratories, worth mentioning here are: The materials testing laboratories including concrete laboratories; road materials laboratories; Rock mechanics laboratories; Soil mechanics laboratories; Environmental Engineering laboratories. They are all well equipped for all sorts of testing



satisfying requirements of Indian Standard Codes Hydraulic laboratory and Structural Engineering laboratory are well equipped for conducting experimental research work. Survey laboratory contains total station equipment suitable for advanced geodetic survey work. These laboratories are upgraded by the addition of equipments such as Tar Viscometer, Float Test Apparatus. Abel Flash point Apparatus, Cloud & Pour point Apparatus, Universal Penetrometer, Profilograph. Benkelam Beam, Centrifuge Extractor, Hubbard Field Test Apparatus, Dynamic Con. penetrometer and Ductility Test Apparatus.

Number of students enrolled with department

• UG Level -

Semester	No. of Students
III	3
IV	43
IV 'G'	2
V	5

VI	44
VII	04
VIII	37

- P.G. Level - 8

Faculty Position

Designation	Professor	Reader	Lecturer Selection Grade	Senior- Lecturer	Lecturer	Associate Lecturer	Visiting Faculty
Number in Position	6	4	-	2	4	-	1

Ongoing Projects

- The Department has taken up and is continuing work on two major research project of total cost of about Rs. 30.00 lakhs in collaboration with Coal India Ltd. and CMPDIL Ranchi.
- The Department received the financial assistance ship for infrastructure Development.
- A Project of Jharkhand Tourism Department for the Construction of two new tourism hotels and renovation of three existing hotels at Deoghar & Daltanganj is going on. Persons involved are
 - Dr. K.V. Krishnamurthy
 - Dr. Arun Kumar
 - Mr. Birendra kumar Singh

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

Prof. S. Sengupta

- Organised Workshop on "National Building Code"- 2005 at Jharkhand State Centre, Institution of Engineers from May 5-6, 2007.
- Technical evaluation of bidders' proposals for infrastructure and implementation of e-governance for entire Bihar on 16th April, 2007 at Patna.
- Hydrological Study of proposed IIT campus at Bihta, Danapur division near Patna on 20th August 2007 sponsored by Dept. of Science and Tech., Govt. of Bihar.
- Delivered lectures to Road construction engineers on Survey and Investigation for road project at SKIPA on September 17-19, 2007.
- Expert members in BPSC, Patna for selection of Assistant Engineer during March 3-8, 2008.

Publications

- Nathawat, M.S., Rathore, V.S., and Sinha A.K. (2007) "A Geoinformatics Approach for water Resource Development in hydrologically Disturbed Coal Mining area", The Eastern Geographer, XIII, No. -1, 38-41, published by Eastern Geographical Society, Utkal; university, Bhubaneshwar, Orissa.

Project in Progress

- "Ground Water Resource Management Model in West Bokaro Coalfield" under Coal India Limited, R&D Project, Cost – Rs. 18 lakhs (Project Team- Dr. K.V. Krishnamurthy, Dr. Balram Singh, Dr. Anand Kumar Sinha).

International Conference

Dr. R.R. Sahay

- Attended International Conference on "*Water in Agriculture at College of Agriculture*", Indira Gandhi Krishi Vishwavidyalaya at Raipur, Chhatisgarh- 15-17 Nov., 2007. Topic- Monthly River flow forecasting through ANN".

Dr. Siddhartha Sengupta.

- Attended Short term training Programme on "*National Hazard management in Integrated Regional development Planning, Geoinformatics approach*" - 19th to 24th November, 2007, BIT Mesra, Ranchi.
- Attended the Short Term Training course on "*Optimization with Genetic Algorithm*" during 24-28 April, 2006 at IIT Kanpur.
- Presented the paper on "*Optimal Sizing of reservoir through GA*" 26-28 March, 2007 "2nd Science Congress, Patna.

Dr. Indrajit Roy

- Presented paper titled "*Maintaining Safety OCP – A success story*" in Asian Mining Congress, 16-19th January 2008, at Calcutta.

Mr. Jitu Kujur

- Short Term course attended during 5th May 2007 to 11th May, 2007 on "*Soft computing in Project Management*" at NITTTR Chandigarh.

Educational Tour

The Department organized the educational tour for Civil Engineering students of 4th semester to 8th semester students and ME students. Few faculties also participated. Dr. C.K. Singh, Ex-Engineers-in- chief-cum Spl. Secretary cum- Addl. Commissioner and Visiting professor of this department arranged the expert lecturers at the site related to roads, bridges and hot-mixed plant in Ranchi districts.

Birla Institute of Technology Civil Engineering Society organize a Educational trip to Mumbai from 12.3.2008 to 20.3.2008 to see Bandra –Worli Sea link project under Hindustan Construction Company Ltd. About eleven students participated in the trip.

Others

Pradhan Matri Gram Sadak Yojana

The Department is deeply involved in infrastructure development in the state of Jharkhand in the capacity of state technical adviser. The Department represents the ministry of rural development, New Delhi for technology transfer, training of engineers and scrutiny of all the details projects report of each and every road projects under PMGSY. Central Govt. release funds for the projects accordingly to the State Govt.

Department of Computer Science



The Department offered technical supports to various constructive activities of Airport authority of India and various departments of Govt. of Jharkhand. Department also supports disaster management team of the state.

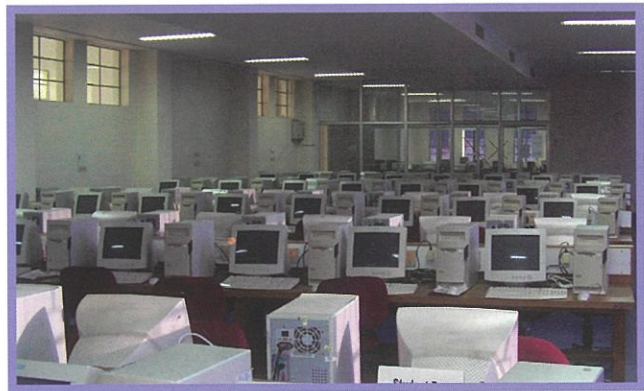
The Department of Computer Science at B.I.T started functioning in 1983 for Bachelor's degree course with bare minimum laboratory facilities, and sanctioned strength of thirty students. Within a span of 22 years the Department has grown rapidly to become one of the largest departments in the Institute. The faculty of the department are involved in research work primarily in the areas of Parallel and Distributed Computing, Software Engineering, Artificial Intelligence & Expert Systems, Soft Computing, Computer Graphics, Image Processing and Modelling & Simulation.

COMPUTER CENTRE

The Computer Laboratory is equipped with nine High End Systems with latest S/W known to be qualified under the Super Mini-Computer category and Super Computer PARAM 10000. The detail of each one is described below-

PARAM-10000 Super Computer

8 CPU (Ultra SPARC II @ 400 MHz), 2 CPU per node, 2.5 GB Memory, 10 x 9.1 GB Ultra SCSI HDD, 32X CD ROM Drive per node, 1.44 MB FDD per node, 2 x 360W Power Supply per node, PGX 32 Graphics Card per node, 10/100 Fast Ethernet Card in each node, 8 Port PARAM NET Switch, 4 nos. PARAM NET CCP2 Cards, 12 Port per node, Fast Ethernet Switch, Console 21", 4 MM 12/24 GB DAT Drive, Solaris 7 Server unlimited user license per node, University Workshop Softwares, C, C++, F-7, F-90, Pascal, Java.



RS/ 6000 P Series P610 with 64 bit RISC based Server

Dual Processor

375 MHz Processor

Integrated SCSI – 3 F/W Adapter

Power GXT 135 P Graphics Accelerator (PCI) and

36.4 GB Ultra 3 SCSI Hot & Cold Plug HDD x 2

DEC-Alpha-600

Alpha@175 MHz with 2.5 GB Hard Disk, 600 MB CDROM, 525 MB CTD and 96 MB RAM. It runs on VMS Operating System and has FORTRAN, PASCAL, C, C++ and COBOL Compilers, GKS and PHIGS package installed as RDBMS. It is linked with two 8-port Terminal Server over DECNET.

SILICON GRAPHICS INDY R-4600

System for Image Processing and Multimedia Presentation having Processor MIPS R4600, 100 MHz, 32 MB RAM, 16 KB Data & Instruction Cache, Indy Video Camera, Microphone, Speakers, Mouse, 540 MB HDD, IRIX Operating System Version 5.2 with C, C++, PASCAL, COBOL Compilers, Multimedia Showcase.

SUN ULTRA

Bus workstation/64 MB RAM/2 GB HDD/17" Color Monitor/ CDROM Drive Microphone/Built in Ethernet/ Solaris 2.5 Operating System/Java Workshop /C/C++/ FORTRAN 77 Compiler.

One High End IBM Netfinity Server Pentium-II

Having Clock Speed 450 MHz/ 256 MB SDRAM/ 9.00 GB HDD/ 32X CD ROM/ Floppy Drive/ IBM Mouse and 17" SVGA Color monitor with Window NT Operating System and is networked with 100 Nos. IBM Thin Client.

1 No. Server of HCL Infinity

PII, 333 MHz/192 MB SDRAM/ 4.3 GB HDD/1.44 MB FDD/ 17"SVGA Color Monitor Digital 32X CD Drive /Keyboard/ Mouse.

Compaq Proliant 400

550 MHZ Clock Speed, 20 GB HDD/576 MB SDRAM/512 KB Cache/1.44 MB FDD/15" Color Monitor.

Digital Deil

5100/RISC Processor/2.1 GB HDD/96 MB RAM /133 MHZ Clock Speed.

Total No. of PCs

(P-IV, 256/512MB SD RAM 40/80GB HDD, 15"/17" color monitors) and Thin Clients available in the department is 40

Degrees/ Diplomas offered

As of now the department offers the following programmes

Undergraduate (UG)Programs

- B.E. (4 years) in Computer Science
- B.E. (4 years) in Information Technology

Postgraduate (PG)Programs

- MCA (3 years) in Computer Science
- M.E. (2 years) in Software Engineering
- M.Tech. (2 years) in Computer Science

Ph.D.

Faculty Position

Designation	Professor	Associate Professor	Principal Scientific Officer	Reader	Sr. Lecturer	Lecturer	Associate Lecturer
Number in Position	01	.		01	11	10	01

Student Enrollment for 2007-08

The numbers of students who have enrolled for the various courses run by the Department in the academic year 2007-08 are as follows-

BE(CS)

II G Semester	IV Semester	IV G Semester	V Semester	VI Semester	VII Semester	VIII Semester	VIII G Semester
1	61	3	2	78	10	89	2

BE (IT)

IIIrd Semester	IV Semester	IV G Semester	V Semester	VI Semester	VII Semester	VIII Semester	VIII G Semester
1	39	1	2	38	4	43	3

MCA

II Semester		IV Semester		VI Semester		VIII Semester		IX Semester		Add.	
FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
56		62		69	1						

ME (SE)

II Semester				IV Semester			
5				9			

M.Tech (CS)

II Semester		IV Semester	
FT	PT	FT	PT
14		27	

Sanctioned Projects for 2007-08

Sl. No	Funding agency	Amount (Rs.)	Duration (years)	Project
1	UGC	8,02,100 /-	3 Years	DNA Based Computing for solving N.P. Complete Problem (Dr. G.Sahoo)

Publications

Journals and Proceedings

- Shaoo, G., and Kumar, T. "A Genetically Based Evolutionary Computing Technique Based Cellular Automata"., International Journal of Computer Science and Network Security., 7, 11, 2007.
- Sahoo, G. & Tiwari R.K., "Designing in Embedded Algorithm for Data Hiding using Steganographic Technique by Fule Hybridization", International J. of Computer Science and Network Solution., 8, 1, 2008.
- Patnaik, K.K., Singh, R. and Sahoo, G. "An e-Resource Trading Paradigm for Computational Grids", IJCSNS, Vol. 7, NO. 7, 2007. <http://paper.ijcsns.org/07-book/html/200707/200707042.html>.
- Panigrahi, S.C. & Sahoo, G. "An MIMD Algorithm for finding Maximum and Minimum on OMTSE Architecture", Scalable Computing: Practice and Experience.
- Kumari, M. and Sahoo, G. "Bionetwork and Organic Networks: A Comparative study", National Referred Journal, Magnum OPUS.
- Majhi, R., Panda, G., & Sahoo, G. "Efficient Prediction of Exchange Rates with Low Complexity Artificial Neural Network Models", Int. J of Expert Systems with Application.
- Jain, A. "Optimizing Web Server Performance using Data Mining Techniques", Accepted for Publication in European Journal of Scientific Research.
- Keshri, A.K., Sinha, R.K., & Das, B.N. "Spontaneous Spike recognition in Electroencephalogram using Deterministic Finite Automata", Medical and Biological Engineering & Computing, U.K.
- Sinha, R.K., Aggrawal, Y., Upadhyay, P.K., Dwivedi, A., Keshri, A.K., and Das, B.N. "Neural Network Based Evaluation of Chronic Non-Thermal Effects of Modulated 2450 Mhz Microwave Radiation on Electroencephalogram", Annals of Biomedical Engineering, US.
- Sinha, R.K., Aggrawal, Y., and Keshri, A.K. "Backpropagation Artificial Neural Network and EEG Power Spectrum Based Automated Detection of Changes in Sleep-Wake State in Rats", International Journal of Biomedical Sciences (Online).
- Shankar Sri Ram. V.S., Gari, Kamukkala. Smiles, S., and Raghu, A. "A Cube Based Routing Architecture for MANET", International Conference on Advanced Computing and Communication, ICAC- 2007, 9-10, Feb, 2007.
- Shankar Sri Ram. V.S., Yellamraju, R., and Muralidhar, P. "Formalizing Hybrid String". International Conference on Advanced Computing and Communication, ICAC- 2007, 9-10, Feb, 2007.
- Shankar Sri Ram., V.S., Mandill, S., and Sahoo, G. "Security Enhancement for ARAN", International Conference on Advanced Computing and Communication, ICAC- 2007, 9-10, Feb, 2007.
- Paul, S., Panigrahi, S. C. and Sahoo, G. "Solving 0-1 Integer Programming Problem on MF-BMC Model", Proceedings : International Conference on Information processing., ICIP-2007, Aug 10-15, 599-605.
- Panigrahi, S. C., Paul, S., and Sahoo, G. "Parallel Prefix computation, Sorting and Reduction Operation on OMTSE Architecture". Proceedings: International Conference on Advance Computing and Communication. ICACC-2007., 616-621, Feb 9-10, 2007.

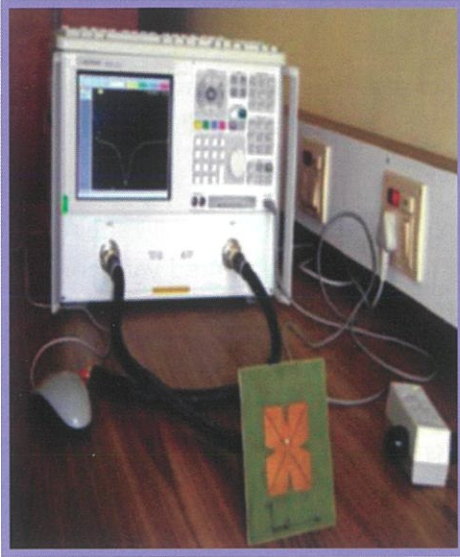
- Panigrahi, S. C., Paul, S., and Sahoo, G. "Parallel Prefix computation, Sorting and DFT on OMTM Architecture". Proceedings: International Conference on Systemincs, Cybernetics and Informatics., ICSCI-2007. 82-89, Jan 3-7, 2007.
- Sahoo, G., Panigrahi, S. C. and Paul, S. "An MIMD algorithm for finding Maximum and Minimum of K elements on Optical Multi Tree(OMULT)", Proceedings: National Seminar on Recent Advances on Information Technology. RAIT-2007. 93-97, Feb 26-27, 2007.
- Sahana, S. "Genetic Algorithm(GA) Based reduced order modelling and function optimization" Published in National Conference on Mathematics and Application at The University of Burdwan, Jan10-12, 2007.
- Sahana, S. "Superiority of aes over tdes/idea based on quantification Performance" Published in 1st National Conference on Emerging Technologies, held at Govt Engg College, Ajmer on 13th April, 2007.
- Sahana, S. "Techniques to overcome limitations of RSA algorithm" at Published in National Conference at LNCT, Bhopal on 15-16 April, 2007.
- Manjhi, R., Panda, P., Shoo, G., Dash, P.K., and Dash, O.P. "Stock Market Predication of S & P 500 and DJIA using Bacterial Foreging Optimization Techniqe", Proceedings of IEEE Congress, Evolutionary Computation CEC Singapore Dec, 07, 25-26, September 2007.
- Panda, G., Mohanty, D., Majhi, B. and Sahoo, G. "Identification of Non-Linear Systems using Partick Swarm Optimization Technique", Proceedings of IEEE Congress, Evolutionary Computation CEC Singapore Dec, 07, 25-26, September 2007.
- Majhi, R., Panda, G., & Sahoo, G. "A Nove ANN based Forecasting Model for Efficient Predication of Stock Indices", Proceedings of International Conference on Advanced Computing & Communication Technology, ICAACT-2007, November, 03-04, 2007.
- Mani, M.R., De, S.K, and Sahoo, G. "Managing e-Programme in SAIL – A Case study of Indian PSU". Proceedings of Recent Advances and Future Trends in Information and Communication Technology, pp 288-294, Jan, 2008
- Paul, S., Panigrahi, S. & Sahoo, G. "Solving OOL Programming Problem on MF-DMC Model", Proceedings on International Conference on Information Processing, pp 599-605. Aug. 10 – 12, 2007.
- Patnaik, K.K., Sahoo, G. "Economy Driven Resource Management Architecture for Compute Grids", Proceedings of 9th International Conference on Enterprise Information Sciences, ICEIS – 2007, in Portugal.
- Patnaik, K.K., & G.Sahoo. "CORM: A Global Market Place using Sandwich Lease Resource Trading on Grid and Utility Computing Process". Workshop on Grid and Utility Computing WGUC, in discussion with HIPC 2007, pp 20-21, 2007.
- Lucas, K.T., Mallick, D.K., and Jana, P. K. "Parallel Algorithms for conflict Graph on OTIS Triangular Array", Lecture Notes in Computer Science (SPRINGER) 4904, 274-279, Dec. 2007.
- Rao, D.S. Kumar, G.N., Mallick, D. K., and Jana, P. K. "Parallel construction of conflict Graph for Phylogenetic Network Problem", Lecture Notes in Computer Science (SPRINGER) 4815, 398-405, Dec. 2007.

- Senapati, K.K. "Entropy in Multi step Data Compression", 12th Annual Conference of (GAMA), MANIT, Bhopal, India, 6 – 8, April 2007.
- Senapati, K.K. "A Proposed Graph Based Algorithm for Data Clustering, Recent Advances & Future Trends in Information & Communication Technology", SEC, Baripada, Orissa. 160-64, 19-20, Jan. 2008.

Workshop / Short Term Course Attended

- Paul, P. Application of MATLAB and Tool Boxes", 21 – 22, April 2007, EEE, at BIT, Mesra
- Paul, P. Refresher Course 07 – 27, at ASC, R.U. January 2008.
- Jha, R. Application of MATLAB and TOOL Boxes for Real Time Solution Organized by Dept. of EEE., BIT, Mesra, 21-22 April 2007.
- Keshri, A., Application of MATLAB and TOOL Boxes for Real Time Solution Organized by Dept. of EEE., BIT, Mesra, 21-22 April 2007.
- Mustafi, A. Collaborative Research in Digital Image Processing University of New Brunswick, St. John, Canada, 8th Sept., - 15th Oct. 2007.

Department of Electronics & Communication Engineering



The Department has modern laboratories and support facilities in all major areas of Electronics and Communication namely, 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 a Beam Prop 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.



The 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, Simplify Pro, Xilinx ISE and Model Sim. There is provision for downloading the VHDL code to FPGA / CPLD Kits namely Vertex, Spartran 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 the 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 for s-parameter characterization of Microwave Integrated Circuits, 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 been setup with Ultra Violet exposure, Ovens, Spinners, all required for fabrication of high precision microwave integrated circuits. The laboratory is also supplemented with software Sonnet used for simulation of all kinds of microwave circuits.

The department also has 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 being equipped with IP Telephony set up and GSM Test system.

A "Research Cooperation Program" has been established with University of Roma Tor Vergata and University of Ferrara in the area of Broadband Satellite Communications and Networking.

An International Center for Wireless and Mobile Communication has been set up on March 28, 2004, under the Department of Electronics & Communication Engineering, BIT, Mesra, under ASIA-LINK programme. The details of ASIA-LINK are as follows

ASIA-LINK Programme

An Euro-Asian Network for strengthening Graduate Education and Research in Wireless Communication (EAGER-NETWIC) between BIT and Aalborg University, Denmark.

Partners

- Aalborg University, Denmark
- Delft University of Technology, Netherland
- Universita'di Roma Tor Vergata, Italy
- Birla Institute of Technology, India
- Institute Technologi Bandung, Indonesia

The Department has received the "Funds for Improvement of S & T Infrastructure in Universities and Higher Education Institutions (FIST)" program of Department of Science & Technology. Under this scheme the department received a grant of 35 Lacs for support in level 1 category.

The Department also has been sanctioned a fund of 31.5 Lacs over the span of 5 years starting from year 2004 to year 2009 from UGC under Special Assistance Program (SAP), Department Research Scheme (DRS).

Courses offered

- **UG Course** B.E. (Electronics and Communication Engg.)
- **PG Course** M.E. (Instrumentation and control)
- M.E. (Microwave)
- M.E. (Wireless Communication)
- M.E. (SDR) from BIT, Mesra, M. Sc. (SDR) from Aalborg University

Faculty position

Designation	Professor	Associate Professor	Reader	Lecturer-selection-grade	Senior Lecturer	Lecturer	Associate Lecturer
Number in Position	5	2	2	3	3	24	2

Number of Students enrolled / registered with Department

UG/PG	Semester	No. of Students
UG	III	03
	IV	121
	V	03
	VI	110
	VII	06
	VIII	130
PG		
Instrumentation	I	1
	II	8
	III	1
	IV	2
Wireless Communication	I	4
	II	6
	IV	6
	VI	1
Microwave Engg.	II	3
	IV	2
	Total	407

Ongoing Projects

Sl. No:	Research Project Topic	P.I. / Co- P.I.	Funding Agency	Amount Sanctioned (Rs. in lacs)
1	Special Assistance Programme (SAP)	Prof. R. Sukesh Kumar, Deputy Coordinator: Dr. Nisha Gupta	UGC	31.50
2	Improvement of S & T Infrastructure in Universities and Higher Educational Institutions (FIST)	Prof. R. Sukesh Kumar.	DST	35.00
3	Design and Development of Reconfigurable Microstrip Antennas for Multiband Wireless Communications	Dr. J. S. Roy	UGC	06.65
4	Design of Active Microstrip Antenna for Wireless Communication	Dr. Shweta Srivastava	DST, SERC Fast Track Project for Young Scientists	08.18

Publications**Journals****International**

- Kumar, R. S., Ray, A. K. and Goel, S. C. "Imprecision Sensitivity Analysis of Monochrome and Color Texture Images using Fuzzy Higher Order Statistics". The Journal of Fuzzy Mathematics, Vol. 15, No. 4, pp 829-841, 2007.
- Mishra, M., and Gupta, N. "Monte Carlo Integration Technique for the Analysis of Electromagnetic Scattering from Conducting Surfaces", Progress in Electromagnetic Research, PIER 79, 91–106, 2008.
- Gupta, N., Mishra, M., Kotha, S. C., and Kiran, Y. "Multifrequency Characteristics of Sinc Shaped Microstrip Patch Antenna", Microwave and Optical Technology Letters, Vol. 49, No. 7, pp 1673-1675, July 2007.
- Gupta V. R., and Gupta, N, "Analysis of a Fractal Patch Antenna", International Journal of Optical and Microwave Technology, pp. 124-129, vol. 2 No. 2, April 2007.
- Roy, J. S., Chattoraj, N., and Swain, N. "New Dual-Frequency Microstrip Antennas for Wireless Communication" Romanian Journal of Information Science and Technology (ROMJIST) (Romania), Vol. 10, No. 1, pp. 113 – 119, 2007.
- Chattoraj, N. & Roy, J. S. "Application Of Genetic Algorithm to the Optimization of Gain of Magnetized Ferrite Microstrip Antenna". Engineering Letters (Hong Kong), Vol. 14, No. 2, pp. 124 – 129, 2007.
- Roy, J. S., and Thomas, M. "Investigations on a New Proximity Coupled Dual- Frequency Microstrip Antenna for Wireless Communication", Microwave Review, (Yugoslavia), Vol. 13, No. 1, pp. 12 – 15, 2007.

- Roy, J. S., and Thomas, M. "Compact and Broadband Microstrip Antennas for Next Generation High Speed Wireless Communication Using HIPERLAN/2", Intl. Jnl. of Microwave Science and Technology, (USA), Vol. 2007, No.10, pp.1-4., 2007.
- Roy, J. S., and Thomas, M. "Miniaturized Broadband Microstrip Antennas for HIPERLAN/2 Application", Romanian Journal of Information Science and Technology (ROMJIST) (Romania), Vol. 10, No. 4, pp. 355 – 360, 2007.
- Chakrabarti, P., Saxena, P. K., and Lal, R.K. "Analytical simulation of InAsSb photovoltaic detector for mid-infrared applications". Int. J Infrared Mill Waves (in press (Available online)).
- Nath, V., Singh, L.K., and Yadav, K.S. "Design and Development of CMOS Bandgap Voltage Reference Circuit in VLSI" International Journal of Systemics, Cybernetics and Informatics, Vol 2, pp.71-75, 2007.
- Nath, V., Singh, L.K., and Yadav, K.S. "Layout Design and Analysis of Intelligence Traffic Light Controller in VLSI using VHDL." International Journal of Systemics, Cybernetics and Informatics, Vol.1, pp.31-34, 2008.
- Jha, M. K., & Mohan, A. "Performance Evaluation of Code Based Routing in Shuffle Exchange Network", TechOnLine Publication: April 2007.
- Kumar, J., Kumar, P., Solanki, S. S., Dutta, P.K., and Goel, S.C. "Fuzzy and Neuro-Fuzzy Approach towards Music Classification", Techonline International Journal, <http://www.techonline.com/learning/techpaper/199204024>, 2007.

National

- Thomas, M., Ghosh, J., and Roy, J. S. "Performances of Two Compact Broadband Slot-Loaded Proximity-Coupled Microstrip Antennas for HIPERLAN/2 Application", International Journal of HIT Trans. Electronics, Communication, Computer and Networks (India), Vol. 3, No.1, pp.12 – 17, 2008.
- Chatteraj, N., and Roy, J. S. "Application of Genetic Algorithm to the Optimization of Microstrip Antennas Covered With a Dielectric Layer", Journal of the Institution of Engineers (India), Vol. 88, pp. 3-6, 2008.
- Shrotriya, M.C., Farooq, Omar., and Abbasi, Z.A. "Wavelet Based Features for Speech Recognition", Journal of Acoustical Society of India. Vol. 34, No. 1, pp. 47-52, 2007.

Conferences

International

- Gupta, N., and Reddy, A. L. "Adaptive Antenna using Fuzzy Logic Control", IEEE Applied Electromagnetics Conference (AEMC 2007), Kolkata, Dec 19-20, 2007.
- Mishra, M., and Gupta, N. "Monte Carlo Integration Technique in Method of Moments Solution of Integral Equation". IEEE Applied Electromagnetics Conference (AEMC 2007), Kolkata, Dec. 19-20, 2007.
- Chatteraj N., and Roy, J. S. "Optimization of Efficiency and Gain of Magnetized Ferrite Microstrip Antenna Using Genetic Algorithm", Proc. of EuCAP07, pp. 367-368, Edinburg (UK), 11-16 Nov, 2007.
- Janardhan, V., Sayanu, P., Kulkarni, R. G., and Roy, J. S. "Novel Microstrip Distributed MEMS Phase Shifters for Phased Array Applications". Intl. Conference on RF MEMS and RF Microsystems, MEMSWAVE-2007, Barcelona, Spain, June 26-29, 2007.

- Chowdhury, S. R., Agarwal, R., Kumar, S., and Roy, J. S. "Comparative Analysis of Non-persistent and p-persistent CSMA". Proc. WPMC2007, pp. 120-125, Jaipur, Dec. 3-6, 2007.
- Roy, J. S. "Investigations on Two Dual-Frequency Microstrip Antennas at GPS and Bluetooth Frequency Bands". Proc. of ISMOT-2007, pp. 207-210, Rome, Dec. 17-21, 2007.
- Roy, J. S. "New Compact Broadband Microstrip Antennas for HIPERLAN/2 Application". Proc. of ISMOT-2007, pp. 751-754, Rome, Dec. 17-21, 2007.
- Janardhan, V., Sayanu, P., Kulkarni, R. G., and Roy, J. S. "Analysis of MEMS Distributed Phase Shifters". Proc. of ISMOT-2007, pp. 527 – 532, pp. 527 – 532, Rome, Dec. 17-21, 2007.
- Roy, J. S., Thomas M., and J. Ghosh. "Broadband Circularly Polarized Proximity Coupled Microstrip Antenna for HIPERLAN/2". IEEE AEMC2007, Calcutta., Dec. 19 – 20, 2007.
- Ghosh J., and, Roy, J. S. "Performances of Two Dual-Frequency Microstrip Antennas for GPS and Bluetooth Communications". IEEE AEMC2007, in Calcutta, Dec.19 – 20, 2007.
- Roy, J. S. "A New Circularly Polarized Microstrip Antenna for High Performance Local Area Network, Intl. Conf. On Radio Science". ICRS-2008, at Jodhpur, Feb. 25-29, 2008.
- Roy, J. S. "Broadband Microstrip Antenna for RFID Application". Intl. Conf. on Radio Science, ICRS-2008, Jodhpur, Feb. 25-29, 2008.
- S. P. Shivakumar and Upadhyay, P.K. "Speech Signal Compression by Sub-band Coding and Multirate Signal Processing". International Conference -3CI-2007 held at RVCE, Bangalore during 21-23 November 2007.
- Nath, V., Singh, L.K., K.S. Yadav. "Layout Design and Analysis of Intelligence Traffic Light Controller in VLSI using VHDL". ICTES-2007, Dr. MGR, University, Chennai, 20-22nd Dec. 2007.
- Nath, V., Singh, L.K., and Yadav, K.S. "Design and Development of a Novel CMOS Switched Capacitor Signal Conditioning for Push Pull Type Capacitive Transducers in VLSI". ICSCI-2008, Pentagon Research Centre (P) Limited, Hyderabad, 2-5th Jan-2008.
- Shrotriya, M. C., Farooq, Omar, Z. A. Abbasi and R. Sukesh Kumar, "Comparative study of LPC and MFCC features for Hindi words recognition". International Symposium Frontiers of Research on Speech and Music, Jadavpur University, Kolkata, pp. 352-356, Feb 2008.

National

- Kumari, S., Bose, T., Gupta, V. R., and Gupta, N. "Design and Analysis of Multilayer Compact Microstrip Antenna", Women in Engineering. National Symposium on Emerging Technologies 2007(WIENSET 2007), Kolkata, June 29-30, 2007.
- Ghorai, S.K., Kumar, D., and Sengupta, S. "Distributed strain sensing using fiber mode-mode interference". Proc. of National Conf. on Advances in Sensors for Aerospace Applications, held at Research Center Imarat, Hyderabad, Dec 14 –15, 2007.
- Chatteraj, N., and Roy, J. S. "Optimization of Magnetized Ferrite Microstrip Antenna Using Genetic Algorithm". WIENSET-2007, Calcutta, June 29- 30, 2007.
- Upadhyay, D. K., Shahu, B. L., and Roy, J. S. "PAPR Reduction in OFDM based Digital Wireless Communication System", ISM Dhanbad, RAIT 2007.
- Pal, B.B. Pal, D., and Das, B.N. "Some important switch capacitor bioelectronic filters with applicator useful for electrosurgery cum therapeutic purpose in biomedical instrumentation system" by National

seminar on Mathematical methods and applications (NSMMA2007) at Mathematics Department, I.I.T (CHENNAI) on 22.12.2007.

- Krishan, G., Goswami, M., and Khurana, N. "*Design of high speed multipliers*", National Conference on high performance Computing for next generation, SUS college of Engg & Tech, Mohali, 84-86, 2007.
- Chakraborty, S., Solanki, S.S., Roy, S. Tripathy, S. S., and Mazzola, G. "*A Statistical Comparison of Two Ragas (Dhuns) that use the same note*". Frontiers of research on speech and music(FRSM-2008), Jadavpur , Kolkata, 20-21 February, 2008.
- Nath, V., Singh, L.K., and Yadav, K.S. "*Design and Development of Smart Double Ring Capacitive Pressure Sensors in VLSI*". A symposium on Contemporary Science & Technology, SCIENTIFICFORESIGHT-2007, Science & Technology Department, Patna, 22-24th Dec-2007.
- Nath, V., Singh, L.K., Yadav, K.S., and Gupta, A. "*Design and Development of Power Supply Noise Attenuation in a PTAT Current Source in VLSI*" A symposium on Contemporary Science & Technology, SCIENTIFICFORESIGHT-2007, Science & Technology Department, Patna, 22-24th Dec-2007.
- Nath, V., Singh, L.K., and Yadav, K.S. "*Layout Design and Analysis of a Variable Low Power CMOS PTAT Voltage Reference Circuit in VLS*". Green Computing Conference-08, Dept. of CSE and Mech. Engg., Birla Institute of Technology, BIT Mesra Ranchi 14-16th March-2008.
- Chakraborty, S., Solanki, S. S., Roy, S., Tripathy, S. S. and Mazzola, G. "*A Statistical Comparison of Performance Two Ragas (Dhuns) That Use The Same Notes*". Frontiers of Research on Speech & Music (FRSM – 2008), February 20-21, 2008, Dr. K. P. Basu Memorial Hall, Engineering Science Building, Jadavpur University, 2008.
- Farooq, O., Datta, S., Shrotriya M.C., and Vyas, A.L. "*Comparative Recognition Performance of Hindi Consonants for Cepstral and Wavelet Features*", National Symposium on Acoustics, Tiruchengode, Tamilnadu, India, pp. 187-191, Dec 2007.

Seminars / Symposiums / Short Term Courses Attended by faculty members

International

- Gupta, N. presented a paper titled, "*Adaptive Antenna using Fuzzy Logic Control*" in IEEE Applied Electromagnetics Conference held in Kolkata during 19-20 December 2007.
- Roy, J. S. presented papers in 11th International Symposium on "*Microwave and Optical Technology (ISMOT-07)*", Rome, Italy, December 17 – 21, 2007.
- Neela Chatteraj, presented paper in The Second European Conference on Antennas and Propagation (EUCAP-2007) 11-16 November 2007, EICC, Edinburgh, U.K.

National

- Ghorai, S. K. presented a paper titled "*Distributed strain sensing using fiber mode-mode interference*", at National Conference on Advances in Sensors for Aerospace Applications, Research Center Imarat, Hyderabad, Dec 14 –15, 2007.
- Islam, two-day Workshop on "*Embedded System & DSP-in-VLSI*" conducted at Department of Electronics & Communication Engineering, NIT, Rourkela, December 5-6, 2007.
- Saha, A. 5 days training program on "*Cadence Tools*" at Cadence India Pvt. Limited, Bangalore. February 11-15, February 2008.

- Saha A. two-day Workshop on "*Embedded System & DSP-in-VLSI*" conducted at Department of Electronics & Communication Engineering, NIT, Rourkela, 5-6 December 2007.
- Seth, D. D. attended short-term course on "*Wireless Communication and Networks*" conducted by G.S. Sanyal School of Telecommunications, I.I.T. Kharagpur, May 14 -19 2007.
- Upadhyay, P. K. short Term Course (Continuing Education program) on "*DSP Tools and Practice*", (One Week) at GSSST, IIT, Kharagpur, June 3-9, 2007.
- Upadhyay, P. K. short Term Course (TEQIP) on "*DSP Kit TMS320LF2407 & TMS320C6713*", 31st March 2007 to 2nd April 2008 (3 Days) in Dept. of EEE, BIT, Mesra, Ranchi.
- Vishal H. Shah, 15 days Short term training program on "*Advanced Computational Techniques*", D.J. Sanghvi College of Engineering, Mumbai. January 7-18, 2008.
- Shah, V. H. two days workshop on "*Embedded System & DSP in VLSI*". NIT, Rourkela, December 5--6 2007.
- Lal, R. K. National Workshop on "*Advanced Optoelectronics and devices*", AOMD- 07, Dept. of Electronics Engineering, IT, BHU, Varanasi, December 27- 29 2007.
- Lal, R. K. "*Green Computing Conference-08*", Dept. of CSE and Mech. Engg., Birla Institute of Technology, BIT Mesra Ranchi, March 14-16, 2008.
- Mishra, G. K. "*Green Computing Conference-08*", Dept. of CSE and Mech. Engg., Birla Institute of Technology, BIT Mesra Ranchi, March 14-16, 2008

Awards/ Citations bestowed on faculty members and students

- Sanyal, N. (BE 328/05), Gupta, S., (BE 251/05), 3rd position in Fusion 2007 technical festival held at BIT, for an embedded system for a conveyor belt system deployed in a cold drink company for counting number of packaged bottles placed on a conveyor belt.
- Sanyal, N. (BE 328/05), 3rd position in Circuit Analysis in Fusion 2007.
- Gupta, S. (BE 251/05), 1st position in Fusion 2007 technical festival held at BIT Mesra for the paper titled 'Multiple Target Tracking Algorithm by Joint Probabilistic Data Association Filter' based on summer 2007 internship research work..
- Goud, A. (BE/ 7516/ III/ 06), first position in the technical paper presentation contest on alternative solar energy utilisation techniques at ENGINEER 2007 (NITK, Surathkal's Annual Technical Festival), National Institute of Technology Karnataka (Surathkal)
- Goud, A. (BE/ 7516/ III/ 06), second position in the CONTRAPTION competition of propulsion mechanised boat making at ENGINEER 2007 (NITK, Surathkal's Annual Technical Festival), National Institute of Technology Karnataka (Surathkal)
- Goud, A. (BE/ 7516/ III/ 06), member of the 2nd place winning team at the Mock Stock game part of the IET Festival held at BIT, Mesra in 2007.
- Ashish, (BE/132/05) , first prize in Hardware Design Contest, in FUSION-07.

Infrastructure facilities added during the year 2007-08

Two PG classrooms are equipped with Electronic teaching aids.

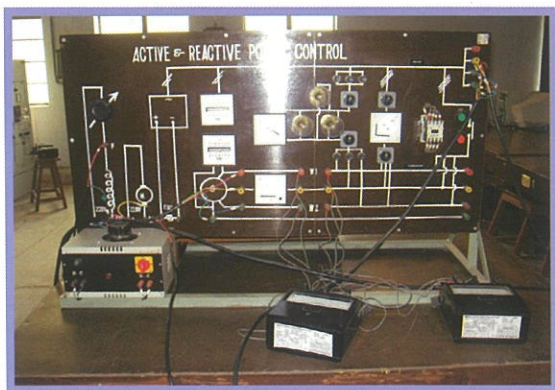
All labs are equipped with uninterrupted power supply.

Department of Electrical & 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 various collaborative projects with neighbouring industries like RDCIS (SAIL), TISCO. An MOU has been signed between BIT, Mesra and RDCIS, SAIL, Ranchi to increase research interaction in which the department plays an important role. The Department is also running an NFD (non-formal diploma) course to train TISCO employees under this MOU.



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 provide them self-employment by enhancing their technical skill. This training program will promote village people to come up with technical efficiency which is another motto of our institute.



The Department has been a center for research in the areas of digital signal processing, microprocessor applications, control systems, 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, system biology, reliability in the area of power system and software etc.

The Department envisions coping with the fast changing pragmatic needs of the technology throughout the globe by adopting suitable new courses and modernization of labs along with commensurate faculty development through research activities. In pursuit of that, the department is emphasizing to introduce new subject of System Biology in the existing P.G. Course of control system, a new PG course in Power Electronics & Drives, and intend to open a PGD (post-graduate diploma) course in Standards and Calibration.

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.

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.

Cources offered

Degree	Specialization
B.E	Electrical Engineering
M.E	Power System
	Control System

Number of Students Enrolled (UG & PG)

Year	U.G.	P.G.	Ph.D.
I year	56	11	05
II year	43	17	
III year	54		
IV year	56		

Semester wise

Class	Semester		No of students
B.E	I, II, III		Common Courses for all BE Students
	IV		42
	V		1
	VI		44
	VII		2
	VIII		53
ME	II	Control System	6
		Power System	5
	IV	Control System	10
		Power System	7

Ongoing Projects

Sl. No.	Title of the project	Funding Agency	Amount Sanctioned	Coordinator/ Investigator	Duration of Project
1.	Development of Programmable Logic Controller Based Automatic Generation Control	UGC	4.92 lacs	Dr. T. Ghose	3 years
2.	Developing Advanced Laboratories	FIST Scheme under DST	27.00 lacs	Dr. B. M. Karan	
3.	Establishment of Instrumentation Maintenance Facility (IMF) during Xth Plan Period	U.G.C.	2.50 lacs		
4.	Design & Development of Lightning Prediction & Protection System	DST, Govt. of Jharkhand	150.00	Dr. B.M. Karan, Mr. Prem Prakash	3 years
5.	Speed Control of DC Motor using al Techniques	AICTE	8.3	Mr. S. G. Kadwane	2 years
6.	Establishment of Power Electronics Laboratory under NaMPET	C-DAC (T)	35.03	Dr. B.M. Karan	2 years

Awards/Citations bestowed on faculty members -

- **Karan, B. M., Mohanta, D. K.** Program Chair Member, 7th IEEE Conference, organized by Wroclaw University of Technology & Cottbus university of technology (IEEE sponsored), Wroclaw, Poland, to be held in 5-10 May 2008.
- **Mohanta, D. K.:** Program Chair Member, 3rd International Conference on Natural Computation and the 4th International Conference on Fuzzy Systems and Knowledge Discovery (IEEE sponsored), (ICNC'07- FSKD'07), August 25-27, 2007, Haikou, China

Seminar/Conference/short term course conducted by the department

Name of course	Candidates	No. of Students
Non-formal Diploma Program	Tata Steel Employees	22 12 (2 nd Semester) + 10 (3 rd Semester)
Vocational Training Programs (in collaboration with Department of Welfare, Govt. of Jharkhand) on i. Repair & Maintenance of Electrical System ii. Repair & Maintenance of Household Appliances	Exclusively for 40% for ST 20% for SC 20% for OBC 20% for minorities	600 (=300 X 2) 6 batches of 50 students in each batch per programme

Training Programme for Rural Candidates under TEQIP (2 Nos.)		30+30
TEQIP SPONSORED SHORT TERM TRAINING PROGRAMME ON DSP KIT TMS320LF2407A & C6713 (March 31, 2007 - April 2, 2007)		10

Workshop conducted by the department

Name of the Programme	Organizers	Place	Duration	Dignitaries	Name of faculty
MATLAB and toolboxes for real-time solutions	TEQIP Sponsored Program	BIT, Mesra	21-22 April 2007	Prof. Routray Prof. A. K. Pradhan	Prof. R. C. Prasad, Prof. D. Bhagat, Prof. N. Pathak, Mrs. S. Chakarborty, Mrs. A. Mohapatra, Mr. J. B. Reddy, Mr. S. Ghosh,
Workshop on Development in Power Electronics Technology	Institution, BIT, Mesra.	BIT, Mesra	4-5th Nov., 2007	Prof. V. Ramanarayan (IISc, Bangalore) Dr. Z. V. Lakaparampil (C-DAC), Guest of honour: Er. N. Neogi (RDCIS), Chief Guest: T. K. Sarkar (D.I.T., GOI), Dr. A. Routray (IIT, Kharagpur) Mr. Sujeet Mishra (CLW) Mr. A. Ranjan (Tata Steel) Mr. U. Chakraborty (Coal Industry) Mr. I. Banerjee (RDCIS)	All Faculty Members of EEE Dept.

Publications

International Journals

- Pradeep Chatterjee, B. M. Karan, P. K. Sinha "Fuzzy Control Of Induction Motor With Reduced Rule Base" Serbian Journal of Electrical Engineering Vol. 4, No. 2, Nov 2007 147-159.
- Ashok Misra, R.C. Prasad, V. S. Chauhan & B. Srilakshmi "A Theoretical Model Of The Electromagnetic Radiation Emission During Plastic Deformation And Crack Propagation In Metallic Materials" International Journal of Fracture, Springer Vol. 145, 22nd Aug. 2007 99-121.
- 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 Accepted for publication

- 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 [In Press].
- 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) [In Press].
- D.K. Mohanta and M. J.B. Reddy "A Wavelet- Neuro –Fuzzy Combined Approach For Digital Relaying of Transmission Line Faults" International Journal on Electric Power Components & Systems (Taylor & Francis) 35, No. 12, 2007, 1385-1407
- M. Jaya Bharata Reddy and D. K. Mohanta "A Wavelet-Fuzzy Combined Approach For Classification And Location of Transmission Line Faults" International Journal of Electrical Power and Energy Systems (Elsevier Publication) Volume 29, Issue 9, Nov 2007. 669-678
- T. Ghose, R. C. Jha "Solution of Unit Commitment Using Modified Genetic Algorithm Considering Outage Uncertainty" International Journal Of Power And Energy System (ACTA Press)
- S.G. Kadwane, Amit Kumar, B.M. Karan "Dynamic Back Propagation Based MRAC With Fuzzy Emulator For DC-DC Converter" Scientific Journal of Electronics and Electrical Engineering– Kaunas vol. 70, No. 1, 2007 49-54.
- 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)

National Journals

- D. K. Mohanta et. al "Possibilistic Approach For Evaluation of Forced Outage Rates of Generating Units Including The Effect of Maintenance Scheduling" Journal of Institution of Engineers (Electrical Division) March 2007 319-326.

Conferences

International

- Mr. P. R. Thakura "Role And Technology of Electrical Power Splitter In Hybrid Electrical Vehicle" IEEE IECON 07, 5-8 NOV, 2007, Taipei, Taiwan.
- Sarbani Chakraborty "Study of A Mageto-Optic Element As A Displacement Sensor" International Conference on Trends in Intelligent Electronic Systems, Sathyabama University, Chennai, 12-14, November 2007.
- M. Jaya Bharata Reddy , D. K. Mohanta and B. M. Karan "Power Quality Monitoring Incorporating Power Swing Using S-Transform Software Tool" International Conference on Trends in Intelligent Electronic Systems, Sathyabama University, Chennai, 12-14 , November 2007.

National

- D. K. Mohanta, R. C. Jha, M. J. B. Reddy, T. Ghose, C. K. Panigrahi "Impact Assessment Of Renewable Sources Using Portfolio-Based Electricity Generation Planning" National conference on new and renewable energy – prospects and challenges (NREPC), Mechanical Engg. Dept, BIT, Mesra, [December 17-18, 2007]
- Avinash Kishore, T. Ghose, B.M. Karan, Debomita "Doubly-Fed Induction Generator for Wind power Generation: A Perspective" National conference on new and renewable energy – prospects and challenges (NREPC)", Mechanical Engg. Dept, BIT, Mesra, December 17-18, 2007

INTERNATIONAL/ NATIONAL JOURNALS REVIEWED

- Mohanta, D. K. Reviewer for IEEE Transactions on Power Delivery, IEEE Transactions on Evolutionary Computations, IEEE Transactions on Energy Conversion, International Journal of Energy and Power(Elsevier), Indian Journal of Engineering & Materials Sciences

Patents Applied for

Sl. No.	Title	Faculties	App. No.	Date Applied
1.	Digital Relay Based On Frequency Domain Approach For Detection And Classification of Power System Transmission Line Faults.	Dr. D. K. Mohanta Mr. M.J.B. Reddy	Application under process	10.01.07
2.	Power System Disturbance Detection, Localization And Classification System Using S-Transform.	Dr. D. K. Mohanta Mr. M.J.B. Reddy Dr. B. M. Karan	Application under process	10.01.07

Seminars/ Conferences/ Symposiums/ Short Term courses attended by the faculty members**Workshop attended**

Name of the Programme	Organizers	Place	Duration	Name of faculty
Advanced Control System Techniques & Their Application	NIT, Rourkela	Rourkela	25-6 th July 2007	Mrs. Aliva Mohapatra
National Workshop On Function Genomics Of Prokaryotes	B.I.T. Mesra	Mesra, Ranchi	10 th -15 th sep., 2007.	

Short-term Course attended

Name of the Course	Organizers	Place	Duration	Name of faculty
Recent Advancement In High Voltage Engineering & Insulation Design	IIT, Kanpur	Kanpur	17 th -23 rd Dec. 2007	Mr. P. Prakash

Industrial Training

Training On	Organizers	Place	Duration	Name of faculty
Power Electronics & Drives	Tata Steel, SNTI	Jamshedpur	25-29 th Dec. 2007	P.R. Thakura, K.C. Jana, S. K. Ghosh
Instrumentation Section	Tata Steel, SNTI	Jamshedpur	31 Dec 2007-5 th Jan 2008	P. Prakash, V. Laxmi, Mrs. S. Chakraborty, N. Soren

Visit to Foreign University as Visiting Scholar

Training On	Organizers	Place	Duration	Name of faculty
Power Systems	University Duisburg – Essen, Germany	Germany	25 th June- 9 th Aug., 07	Dr. T. Ghose

Other Information**Ph. D. Thesis Submitted**

Sl. No	Name	Title	Date of Presentation	University
1.	Mr. J. B. Reddy	Detection, Classification And Localization Of Power System Transmission Line Faults Using Wavelet Neuro-Fuzzy Combined Approach	Nov.,2007	B.I.T, Mesra
2.	Mr. S. G. Kadwane	Design And Implementation Of Conventional And Neuro-Fuzzy Controllers For Switch Mode DC-DC Converter Under Different Load Condition	Dec.,2007	B.I.T, Mesra
3.	Mr. P. K. Upadhyay	Wavelet Neural Analysis Of Effect Of Heat Stress On Sleep-EEG	Dec., 2007	

On Study Leave

Name	Designation
Mr. R. K. Keshri	Lecturer(Under University collaboration to Padova University Italy)

Additional academic programmes

Name of programme
1. Non-formal Diploma Course
2. Vocational Training Programmes(in collaboration with Department of Welfare, Govt. of Jharkhand) on
3. Repair & Maintenance of Electrical System
4. Repair & Maintenance of Household Appliances

Development Activities

Consultancy Work

Energy Auditing at HEC, Ranchi

Department of Hotel Management & Catering Technology

The Department of Hotel Management and Catering Technology, established in January 2003, offers a 4-year (8-semester) programme leading to a Bachelor's Degree in Hotel Management & Catering Technology (BHMCT) approved by A.I.C.T.E. The programme is designed to produce the most competent future hospitality professionals. Two batches have graduated from the Department till now.



The Department has been declared as 14th best Catering College in the country (survey conducted by CSR) in just four year of its operation.



The Department has various well-equipped laboratories such as Food Production Laboratory, Food and Beverage Service Laboratory, Accommodation Operations Laboratory, Front Office Laboratory. The Accommodation Operations Laboratory is one of the best equipped in the country. There is a separate housekeeping lab and a well equipped laundry.

The Department publishes a **biannual blind referred national research journal JOHAR – “Journal of Hospitality Application and Research”**, the first of its kind in India. The maiden issue was released by the Hon'ble Chief Minister of Jharkhand in March 2006 and since then five issues have come out. JOHAR is gaining popularity and is being respected in the academic field for the good standard contributions in research.

Course offered

UG Course: Bachelor of Hotel Management & Catering Technology (BHMCT) - 4-year (8-semester) programme

Faculty position

Designation	Professor	Reader	Principal Scientific Officer	Lecturer (Sel. Grade)	Lecturer (Senior)	Lecturer	Assoc. Lecturer
Number in Position				1	1	5	4

Number of Student enrolled/ registered with Department

Semester	No. of students
I st	39
III rd	35
V th	38
VII th	23
Total	135

Ongoing Projects

Sl. No	Research project topic	P.I./ Co-P.I.	Funding agency
1	Effectiveness of Simulation as a training method in comparison with class room teaching (with special reference to BIT –BHMCT Students) 2006.	1) Dr. Sonia Gupta 2) Atul Gupta 3) Rajeshwari Chatterjee	Birla Institute of Technology
2	Analysis of Affecting Parameters during Food Production	1) Abhinav Kr. Shandilya 2) P.R.Sahoo 3) Praveen Srivastava 4) J.Singh (Mech. Engg. Dept.)	Birla Institute of Technology

Seminar(s) / conference(s) / short term course(s) conducted by the Department

Celebrating the world tourism day on 27th September 2007, a national level program was organized by the Department of Hotel Management and Catering Technology BIT Mesra, from **26th to 29th September 2007**

Dept. of Hotel Management & Catering Technology, BIT, Mesra, Ranchi participated in a competition organized by IFCA – Indian Federation of Culinary Associations on International Chef's Day i.e. 20th October 2007 by **organizing a charity dinner**. The profit of the dinner was used to distribute free lunch to the physically challenged students of "Kislaya Vidya Mandir".

A Seminar on "Opportunities for creating Tourism Infrastructure in Jharkhand" was organized on 20th of November 2007 at Udyog Mela, Morabadi Maidan, Ranchi by the Department of Tourism in association Dept. of Hotel Management, BIT, Mesra. The main motto of the program was to motivate the investors for the development of the tourist places in Jharkhand.

Courses

- Lecturers are regularly organized for the students from the professionals from industries.
 - a) Dr. K. S. Nagarajan, Ex-Principal, IHM, Chennai,
 - b) Mr. Kostav M. Dhar, President, MDLR Airlines,
 - c) Dr. Chef Manohar, Corporate Chef, Regency Group of Hotels,
 - d) Mr. Sanjay Kothari, Managing Director, Just Holidays Travel Agency, Kolkata.

- The workshops on Vegetable and Fruit Carving was organized by the department & conducted by Chef Vinoth, Director, Sai Institute of Carving. The students and Faculties witnessed the carving of flowers, swans, dragons out of vegetables and seasonal fruits.
- **Workshop for Faculties of the Dept. and Professionals of Hotel Industry**
 - a) A workshop on modern technique used in Kitchen Planning & Designing was conducted on 28th September 2007 by Chef Manohar, Corporate Chef, Regency Group of Hotels, Chennai as the value addition and knowledge enhancement for the faculties and the hospitality professionals nationwide.
 - b) A workshop on Roast & Grills was conducted on 28th September 2007 by Chef Manohar, Corporate Chef, Regency Group of Hotels, Chennai as the value addition and knowledge enhancement for the faculties and the hospitality professionals nationwide.
 - c) A workshop on Butter Sculpturing was conducted on 29th September 2007 by Chef Vinoth, Director, Sai Institute of Carving, Chennai, as the value addition and knowledge enhancement for the faculties and the hospitality professionals nationwide.

Book Reviews

- Atul Gupta – Elements of the Table: A Simple Guide for Hosts and Guests; Author- Lynn Rosen; Edition – 2007.
- Dr. Sonia Gupta – Best Outdoor Towns : Unspoiled Places to Visit, Live & Play; Author- Sarah Tuff, Greg Melville; Edition – 2007.

Publications by faculty in Seminar Proceedings

Atul Gupta, *"A study of marketing strategies of present and probable littee selling outlets in Ranchi"* International Conference on *"International Conference on Innovation in Tourism : Competitiveness and Sustainability"*. (Organized by Indian Institute of Tourism & Travel Management.)

Sonia Gupta, *"A study of marketing strategies of present and probable littee selling outlets in Ranchi"* International Conference on *"International Conference on Innovation in Tourism : Competitiveness and Sustainability"*. (Organized by Indian Institute of Tourism & Travel Management (An Organization of Ministry of Tourism, Govt. of India) from 20th December to 22nd December 2007)

Rajeshwari Chatterjee, *"Treatment of the effluent generated from pickling method and to remove their toxic property to make it eco-friendly."* Seminar on *"Cleaner Production for Sustainable Development - Status, challenges, Opportunities & vision"* (Dec. 07).

Books

Atul Gupta

- Authored study material to be printed for B.Sc. in hospitality and hotel administration course being offered by Uttaranchal Open University for paper –Front Office Operation.
- Authored study material to be printed for BTS (Bachelor in tourism Studies) being offered by Uttaranchal Open University for paper – Hospitality Management.

Dr. Sonia Gupta

- Authored study material for B.Sc. in Hospitality and Hotel Administration course being offered by Uttaranchal Open University for paper –Housekeeping Operations.

Seminar(s)/ Symposium(s)/ Short-term Course(s) attended by faculty members**National Events**

Attended by (Faculty Names)	Seminar(s)/ Symposium(s)/ Short-term Course(s)	Organized by	Date	Venue
1) Sanjay Kumar	Short term course on "Total Quality Management In Service Organization"	IIT, Kharagpur	March 22-26, 2007	Kharagpur
1) P.R.Sahoo 2) Abhinav Shandilya 3) Sanjay Kumar	Staff Development Program on "Environment Management in Hospitality Industry"	ISM, Pundag, Ranchi	4 th to 17 th June 2007	Pundag, Ranchi
1) Atul Gupta (Convener) 2) P.R.Sahoo 3) Praveen Srivasatav 4) Abhinav Kr. Shandilya 5) Rajeshwari Chatterjee 6) Sanjay Kumar 7) Snigdha Priya 8) Amit Saran 9) Gautum Shnadilya	Workshop on "Roast and Grills"	Dept. of HMCT, BIT, Mesra by Chef Manohar, Corporate Chef, Regency Group of Hotels	28 th September 2007	Ranchi
1) Atul Gupta (Convener) 2) Dr. Sonia Gupta (Organizing Secretary) 3) P.R.Sahoo 4) Praveen Srivasatav 5) Abhinav Kr. Shandilya 6) Rajeshwari Chatterjee 7) Sanjay Kumar 8) Snigdha Priya 9) Amit Saran 10) Gautum Shnadilya	Workshop on "Kitchen Planning & Designing"	Dept. of HMCT, BIT, Mesra by Chef Manohar, Corporate Chef, Regency Group of Hotels	28 th September 2007	Ranchi

1) Atul Gupta (Convener) 2) Dr. Sonia Gupta (Organizing Secretary) 3) P.R.Sahoo 4) Praveen Srivasatav 5) Abhinav Kr. Shandilya 6) Rajeshwari Chatterjee 7) Sanjay Kumar 8) Snigdha Priya 9) Amit Saran 10) Gautum Shnadilya	Workshop on "Butter Sculpturing"	Dept. of HMCT, BIT, Mesra by Chef Vinoth, Director, Sai Institute of Carving, Chennai	29 th September 2007	Ranchi
1) Atul Gupta 2) Amit Saran	Short term course on "Improving Personal and Inter Personal Effectiveness through Time Management"	"Institution of Engineers(I), Jharkhand State Center", Ranchi	2nd Nov 2007	Dhurwa, Ranchi

Awards / citations bestowed on faculty members and students

- 1 Atul Gupta
 - a) Obtained **Second position** in the University in P.G. Diploma in hotel management from Annamalai University.
 - b) Invited by Dept. of Tourism, Govt. of Jharkhand as an Expert to deliver **key note address** in the seminar on "Promotion of Jharkhand Tourism" attended by the Professionals from Hotel/ Motel & Travel Agencies.
 - c) Invited as an **expert of the committee** member by the Ministry of Social Welfare, Govt. of Jharkhand for selection of Institutes concerning Vocational Training Plan.
 - d) Nominated as **Regional Vice President (East)** of Indian Hospitality Congress.
- 2 Dr. Sonia Gupta
 - a) Obtained **First position** in the University in P.G. Diploma in hotel management from Annamalai University.
 - b) Dr. Sonia Gupta's biographical note with photograph has been published in **Asia/ Pacific Who's Who Volume – VII**. (Asia Pacific Who's Who attempts to capture and preserve knowledge who have scaled heights against odds to achieve excellence, people who have made a mark in original line of thinking by any standard.

Student Activities

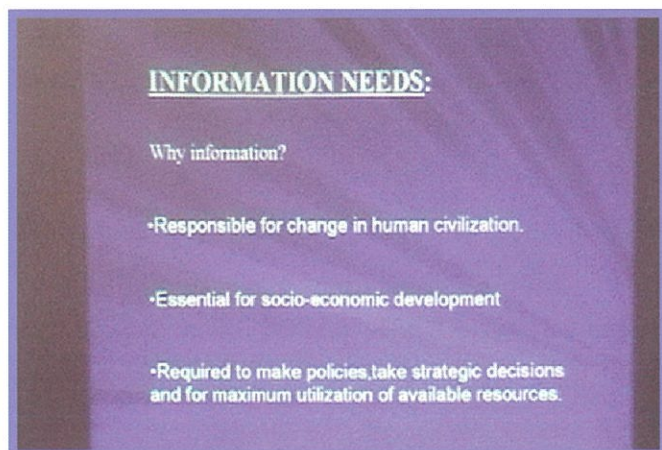
- Students of the Dept. participated in a competition organized by IFCA – Indian Federation of Culinary Associations on International Chef's Day i.e. 20th October 2007 by organizing a charity dinner in the campus. The profit of the dinner was used to distribute free lunch to the physically challenged students of "Kislaya Vidya Mandir".
- Students actively participated and undertook training in Front Office, Food & Beverage, Food Production, Accommodation Operation and other areas during World Tourism Day Celebration on 27th September 2007.

- During 20th November Seminar students participated in the seminar on “Opportunities for creating Tourism Infrastructure in Jharkhand” organized by Dept. of Tourism, Government of Jharkhand in association of HMCT Dept., BIT, Mesra.

Other Information

- a) Atul Gupta – Conducted national level DOT – “Design of Training” course at ISTM, Delhi from 22nd April to 30th April 2007.
- b) **Rajeshwari Chatterjee**
 - (i) Project completed on “Scio- Economic Assessment Study of Sundargarh District, Orissa, NTPC Thermal power project”. – From November 2006 – to May 2007.
 - (ii) Project completed on Scio- Economic Assessment Study of Darjeeling and Pulbazar District of West Bengal and Sikkim, NTPC Hydral power project”. – From February 2006 – to June 2007.

Department of Information Science



Information is a central resource in many enterprises. The effective management of information resources (its production, publication, storage, retrieval, analysis and synthesis) 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.

Since then the Department is keeping itself abreast with the changing environment through the up gradation of the course curriculum and by providing better platform to the students.

Programmes Offered

Programmes Offered	Intake
M.Sc. in Information Science (MIS)	30
Ph.D. Programmes	

ACTIVITIES OF THE DEPARTMENT DURING 2007-08

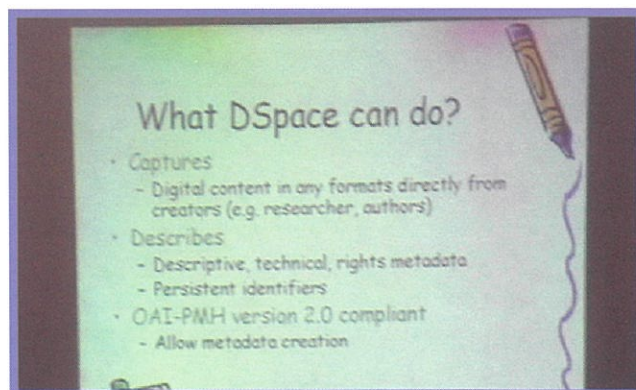
Paper Publication

International

- Manuj, D., Karn, B., Bansal, P. K., and Goel, R. "Extension of UML (OPEN) Abstract Modeling to Develop Web Application Supporting Platform and Device Independence". Ubiquitous Computing and Communication Journal 2 , 5, 2007.
- Manuj, D., Bhaskar, K., and Ahmad Hasan. "Modeling intelligent transport system using opat: a language to transform multi agent system in object oriented notation". Accepted for presentation in IMECS – 2008 held at Hong Kong during March 19- 21,2008

Other Activities

- Karn, B. elected as Vice-President of Jharkhand Information and Library Association (JILA).
- The faculty and students of the Department created the Database of the Ph.D. degrees that were awarded by the Institute. This is available at Institute's web site.
- Karn, B. was deputed from the Institute to organize 8th JRM of TEQIP during February 1- 2, 2008 held at IICM , Kanke , Ranchi



Department of Management

The Department of Management was founded in 1979 to impart holistic management education to potential young managers and has completed 26 glorious year 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 facilitates better 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 initiatives taken by the department during the last financial year are as follows:

- a. The bi-annual journal of the department 'The Alternative' and quarterly newsletter, 'Manage-a-Bit' has evoked interest in the management community. Many new institutions have shown their interest for subscription as well as on exchange basis for the journal.
- b. During the year 2007-08, the campus placement of the students of the department has been overwhelming. Some of the salient recruiters of the year were GE MONEY, MOTILAL OSWAL SECURITIES, HDFC LIFE INSURANCE, RELIANCE MONEY, TATA TELESERVICES, IBM, CEASE FIRE, ICICI LOMBARD, ICICI PRUDENTIAL, AXIS BANK, SATYAM, etc.
- c. During the year 2007-08 under MOU with ITM 21 candidates were registered for their PhD program under different faculty members.
- d. The department is successfully conducting Certificate course on 'Information Technology Enabled Services'. This has been sponsored by Department of Industries, Govt. of Jharkhand.
- e. The annual B-school students' festival. SAMAGAM 2007 was organized during April 2008 in which students of reputed Management Schools had participated.

Degree/Diploma offered :

Following programme are being offered by the Department-

- Ph. D.
- Master of Business Administration (2years Full- Time / 3 years Part- Time)
- Bachelor of Business Administration(3years full – time)
- M.E. (Quality Engg. & Management)

No. of students registered/ enrolled with the department are as follows

- 2006 batch-VI Trimester -105 nos. (Full –time)
- 2007 batch- III Trimester – 87 nos. (Full –time)

Academic Innovations, Research & Development activities

- The department was involved in the design & development of an Integrated Institute Information Systems through the information cell of the institute.
- Department faculty members involved in the development of some research activities which are as follows:-

- i. BUILDING THE BIT MESRA BRAND
 - ii. WASTE MANAGEMENT , RECYCLING, USES AND MEGA HORTICULTURE COMPLEX WITHIN BIT, MESRA CAMPUS
- The following projects were sanctioned to the department during the year :
 1. Making of an Entrepreneur: A Study of Entrepreneurial Intent and of youth in India sponsored by Indian Council of Social science Research, New Delhi.
 2. Vocational Training Programme for Women, sponsored by Department of Welfare, govt. of Jharkhand.

Seminar/conference/short term course conducted

A workshop on Financial Services in India organized by S. K. Bose

- The department is successfully conducting Certificate course on 'Information Technology Enabled Services'. This has been sponsored by Department of Industries, Govt. of Jharkhand.
- Personality development programme organized for MBA fresher in Sep 07. The programme was conducted by Dr. P. K. David and Dr. (Mrs) Juthika Banerjee.

Publication by the Department

Journals

International

- Shivani, S. "*Towards a methodology for defining implementation strategies for E- Governance adoption : Indian States*" IJMT Vol. 5 No. 3 Nov. 2007 published by School of Business, Walden University, U.S.A.
- "*House of Quality of QFD in quality Gap Analysis across PLC*". Issue July- Dec. 2007 An International Journal of Manufacturing Technology & Research.

National

- Bose, S.K. "Improving retail penetration of banking services in rural India" Man & Development volume-29 No. 2 issue June 2007 Centre for research in Rural & Industrial Development.
- Bose, S.K. "Customer is the king: A managerial perspective in modern banking scenario" Asia Pacific business review (Vol.3, issue Jan. to June 2007) of Asia Pacific Institute of Management. Jasola, New Delhi
- Agrawal Vijay "Booming Sensex under Glooming Economy: What's The Big Deal" The Alternative, ISSN0973-0451.
- Shivani S. "*Branding in retail: imperative for growth*" March 2008, Advertising express ICFAI University Press, Hyderabad.
- Bhagat R.N. "*Customization of Marketing Mix for future prospect Marketing*" Growth ,Journal of the Management training Institute, SAIL, Ranchi (Vol. – 35, no. 2, July – Sept. 2007)
- Bhagat R.N "*Promoting Horticulture through value addition in the system*". Ideal Research Review, Patna, June '07. .
- Pande Rohit "*Globalization Opportunities and Challenges*" Published in current labour report Vol. 24 part 1 2008

Proceedings

National

1. Mr. Vijay Agrawal presented paper on 2-days National Seminar on "Innovation and Entrepreneurship" organized by SNSIMB in Collaboration with IIPA New Delhi.

International

1. Dr. S. Shivani 'Management of Brand Equity' A Comparative Analysis: South Asia Marketing Conference held at Somaiya Institute of Management Science & Research, Mumbai, January, 2008.
2. Dr. R.N. Bhagat 'Impact of Reliance Fresh on the small and Marginal Farmers and Intermediaries': 11th Nirma International Conference on Management – NICOM-08 held at Nirma University Ahmedabad during January 9-11th 2008.

Seminars/Symposium/Short term course attended by faculty members

Conference/ Seminar / Symposium/ Short Term courses	Name of the Faculty Member
E- learning workshop organized by TEQIP, BIT, Mesra	Mr. Amitabh Verma
Management Development Programme on Knowledge Management conducted by NIT, Trichy	Mr.Utpal Baul Mr.Amitabh Verma
Soft Skills Programme conducted by T & Pin BIT, Mesra	Mr.Rohit Pandey Mr.Amitabh Verma Mr Anand Pd.Sinha
Changing the Mind Set under TEQIP ,organized by Mr.Shiv Khera.	Mr.S.C.Mishra Mr.Vijay Agarwal
Genetic Algorithms for Engineering Optimization, IIT Kanpur.	Mr.S.C.Mishra
Labour Jurisprudence held at IICM, Kanke Ranchi.	Mr.Anand Kumar Dr.Manju Bhagat.
National Workshop on "Lean manufacturing Implementations" organised by IIPE Jharkhand State Chapter, Ranchi	Mr.Vijay Agarwal
Strategic Quality Management-A Journey for Excellence" Organised by Confederation of Indian Industry at CII Gurgaon office.New Delhi	Mr.Vijay Agarwal
Total Quality management in Service organizations at IIT Kharagpur in March 07	Mr.S.C.Mishra

National Conference on Indian Hospitality Industry – Contemporary Issue 27 -28 March '08, organized by H.N.B. Garhwal University.	Mrs. Shelly Srivastava
Intellect Management through IQ, EQ, SQ organized by BIT extension centre, Jaipur	Dr. P. C. Jha
Impact of Reliance Fresh on the small and Marginal Farmers and Intermediaries conducted by Nirma University Ahmedabad.	Dr. R. N. Bhagat

Student Activities

- All India B-School Students Festival, SAMAGAM 2007 was organized by the department in April 2008.
- The Department organized the Induction Programme for the freshers of 2007-08 batch in July 07
- The Department organized the farewell programme for the outgoing batch of MBA students in April 2008.

Department of Mechanical Engineering

Since its inception in 1955, the Department of Mechanical Engineering has gained a wide reputation for the quality of its teaching and research. 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 are highly employable and sought after by many prestigious companies.

The department, recognized as a DST-FIST sponsored Department by Government of India, has been receiving continuous financial support for Research projects from Ministry of Science and Technology, Ministry of Food Processing Industries, Government of India and other agencies.



General Informations

Addition of Equipment :

Following equipments have been procured and installed in the Solar Biomass hybrid cold storage cum dehydration plant:

- (a) Multi cylinder diesel generator set
- (b) Bio-gasifier
- (c) Thermal compressor
- (d) Hydrogen flame trap & injection system
- (e) Computerized dehydration equipment
- (f) Steam generator
- (g) Water softening unit
- (h) Rotary drier
- (i) Agro-product processors

Additional Research Projects :

Dr. A. N. Sinha	Bio-robotic modelling of prosthetic aids using microprocessor based multi-function myoelectric control systems (2007-09)	Rs. 10.00 Lakhs	AICTE
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- Additional Ph.D. Registration
- (a) Sri Praveen Mishra. "Design of Sub-merged Entry Nozzle for a continuous slab caster" under the guidance of Dr. K.K.Srivastava and Dr. S.K. Ajwani (July 28,2007).
 - (b) Sri Alok Kumar "Some basic aspects of Electromagnetic radiation emissions during plastic deformation and fracture in hexagonal close packed metals" under the guidance of Dr. Ashok Misra (July 28,2007).
 - (c) Sri Jagdish Singh "Development of new rail steels" under the guidance of Dr. Ashok Misra (July 28,2007).

Awards/Citations bestowed on Faculty members and students

Sri J. Sanjeev, Sri J. George Phillip and Sri Vivek Kumar Gaba won the best paper award at the National Conference on Energy 2008, January 31 – February 01,2008 at NIT Calicut.

Number of students enrolled semester-wise in different programmes

B.E. VIII Semester	:	63
B.E. VII Semester	:	04
B.E. VI Semester	:	51
B.E. IV Semester	:	61
M.E. (Heat Power)	:	
I Semester	:	02
III Semester	:	06
M.E. (Design of Mech. Equipment)	:	
I Semester	:	02
III Semester	:	05

Ongoing projects

- (i) Dr. A. N. Sinha, "Development of CAD Model for Custom fit artificial human Limbs using Reverse Engineering Method", DST, 14.3.2005, Rs. 14.9 Lacs, 3 years, March 2008.
- (ii) Dr. Ashok Misra, "Solar – Biomass based Cold Storage cum Dehydration Plant for Tribal States", Ministry of Food Processing Industries, Govt. of India, March 2005, Rs. 66.8 Lacs, 3 years, April-May 2008. (Duration extended).
- (iii) Dr. Ashok Misra "Development of Infrastructure for Smart Mechanical System", DST-FIST Govt. of India, 2005 – 2010 Rs. 26.00 lakhs, 5 years.

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

- (i) National Conference on New and Renewable Energy: Prospects and Challenges, December 17-18, 2007.

Research Publication in Journals

International Journals

1. Misra, R.K., Kumar, S., Sandeep, K. and Misra, A. "Dynamic Analysis of Banana Fibers Reinforced high-density polyethylene/poly (ϵ -caprolactone) composites", Journal of Mechanics of Materials and structures, 3 (2008) 107 –126.
2. Misra, R.K., Kumar, S., Sandeep, K., Misra, A. "Some Experimental and Theoretical investigations on Fire Retardant Coir/Epoxy Micro-composites", Journal of Thermoplastic Composite Materials, 21 (2008) 71 - 101.
3. Misra, Ashok., Prasad, R. C., Chauhan, V. S., and Srilakshmi, B. A theoretical model for the electromagnetic radiation emission during plastic deformation and crack propagation in metallic materials" International Journal of Fracture, 145 (2007) 99-121. doi10.1007/s10704-007-917-0.
4. Lata, D.B., Chandra, R., Kumar, A. and Misra, A. "Effect of light on generation of hydrogen by *Halobacterium halobium* NCIM 2852", International Journal of Hydrogen Energy (2007) doi:10.1016/j.ijhydene.2007.05.020.
5. Misra, R.K., Sandeep, K. and Misra, A., "Analysis of Laminate using multiquadric radial basis function", International Journal of computational methods in Engineering Science and Mechanics, 8, (2007) 1-10.
6. Kumar, R., & Misra, A., "Some basic aspects of electromagnetic radiation emission during plastic deformation and crack propagation in Cu – Zn alloys". Materials Science & Engineering A USA, 454 (2007) 203-210.
7. Mishra, R.K. Sandeep, K. and Misra, A. "Analysis of Anisotropic plate using multi-quadritic radial basis function". International Journal of Engineering Analysis with boundary elements. 31 (2007) 28-34.
8. Kumar, S., Misra, R. K. "Analysis of Banana Fibers Reinforced Low-density Poly-ethylene/Poly (ϵ -caprolactone) composites", International Journal of Soft Materials, 4 (1) (2007), 1-13.
9. Sinha, A.N., Das, N., & Sahoo, G. "Ant Colony Based Hybrid Optimization for Data Clustering", International Journal of System and Cybernetics "Kybernetes", U.K. (in press).

National Journals

1. Dwivedi, R. & Sinha, A.N. "Analytical Approach for Design of Dust Control System in Mineral Handling and Processing Industries", Mine Tech Journal (Accepted).
2. Dwivedi, R., & Sinha, A.N. "Analytical Approach for Particle Size Distribution" Mine Tech Journal (accepted).

Proceedings of International/National Seminars/Conferences

1. Kumar, A., Dalwe, D.M., and Kumar, A. "Experimental and Numerical Analysis of Sandwich Panels" International and INCCOM – 6 Conference on Future Trends in Composite Materials and Processing, I.I.T., Kanpur, December 12-15, 2007.
2. Gaba, V. K., Sanjeev, J., and George Phillip, J. "Analysis of Engine Exhaust driven Silica gel /Methanol pair adsorption system", National Conference on Energy – 2008, NIT Calicut, January 31 – February 1, 2008.

3. Roy, M. K., and Gaba, V. K. "Effect of Generation temperature on the performance of Silica gel / Water pair and Zeolite / Water pair adsorption refrigeration systems", National Conference on New and Renewable Energy: Prospects and Challenges, Ranchi, December 17-18, 2007.
4. Kumar, A., Gaba, V. K., "Performance study of bio-fuel plant for rural electrification", International Conference on Energy, CMERI, Durgapur, October 15-18, 2007.
5. Choudhary, B.S. "Mechatronics based optimized expert system design for integrated belt conveyor", 10th NCB International Seminar on Cement and Building Materials, New Delhi, November 27 – 30, 2007.
6. Drolia, A., Sharma, R.P., Mishra, P., Pandey, O.P., & Kumar, A. "Micro-Hydel Turbine (Cross – Flow)" National Conference on New and Renewable Energy: Prospects and Challenges, Ranchi, December 17-18, 2007.
7. Jha, P. K., Mohapatra, S.S., Mishra, P., & Jha, P. K. "Numerical Investigation of mixing capability of different configuration Tundishes" National Conference on Frontiers in Chemical Engineering, NCFCE, IIT Guwahati, Dec. 12 – 14, 2007.
8. Drolia, A., Sharma, R.P., Mishra, P., Pandey, O.P., & Kumar, A. "Micro-Hydel Turbine (Cross – Flow)" National Conference on New and Renewable Energy: Prospects and Challenges, Ranchi, December 17-18, 2007.
9. Tripathi, B., Mishra, S. K., & Kumar, A. "Mathematical Description of Thermo-electrochemical performance of fuel cells" National Conference on New and Renewable Energy: Prospects and Challenges, Ranchi, Dec. 17 – 18, 2007.

Seminars / Conferences / Symposium / Short-term courses attended by the Faculty members

1. Laata, D.B. National Workshop on "Burner Design for Clean and Efficient Combustion" I.I.T. Chennai, Nov. 16 – 17, 2007.
2. Kumar, R. National Symposium on "Emerging Trends in Mechatronics", NIT Kurukshetra, December 27 – 28, 2007.
3. Choudhry, B.S. "National Seminar on Model based Design for Embedded Signal Processing Systems" Kolkata, August 20, 2007.
4. Pandey, R. "Nevedac Prosthetic Centre", Chandigarh, December 24-27, 2007.

Other Informations

(A) Following innovations developed by the Department of Mechanical Engineering have been selected for inclusion in the brochure on select innovation by the National Project Implementation Unit of Govt. of India under Technical Education Quality Improvement Programme

1. Solar Powered Potter Wheel
2. Solar Power Charkha
3. Pooja Dhoop Extrusion Machine

It may be mentioned here that the above three are the only innovative projects which have been selected from the State of Jharkhand.

(B) Following Research and Development Projects of government organization/Private sectors are being

carried out by the Department

- (i) Design, Development and Testing of Cross flow Micro-hydel Turbine for Rural Electrification in the District of Hazaribagh.
- (ii) Development, Testing and Demonstration of 3-Tone capacity Solar Photovoltaic Cold Storage System for Rural Application in Collaboration with GJ Enterprise, Ranchi.
- (iii) Design and Development of Solar – Biomass hybrid Cold Storage cum Dehydration Plant for Agro-products (MFPI, Govt. of India).
- (iv) Design and Development of Night soil based Bio-gass digester for meeting in-house cooking needs and electricity generation in various jails of Jharkhand State.

(C) Attraction on the R & D Projects of the Department

- (i) NTPC, New Delhi has shown interest to procure Oxen Driven Generator.
- (ii) M/s PPS Enviro Power, Bangalore is interested in developing research collaboration with the Department in the field of gas based power generation through DG set using waste carbon slurry.

(D) Consultancy: Following consultancy works as part of R & D Programme has been carried out by the Department

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
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

(E) Institute – R & D Organization interaction Programme

- (i) A Research collaboration between the Department of Mechanical Engineering of the Institute and

the Department of Blasting, CIMFR, Dhanbad has been established to carry out joint research projects.

Student Activities

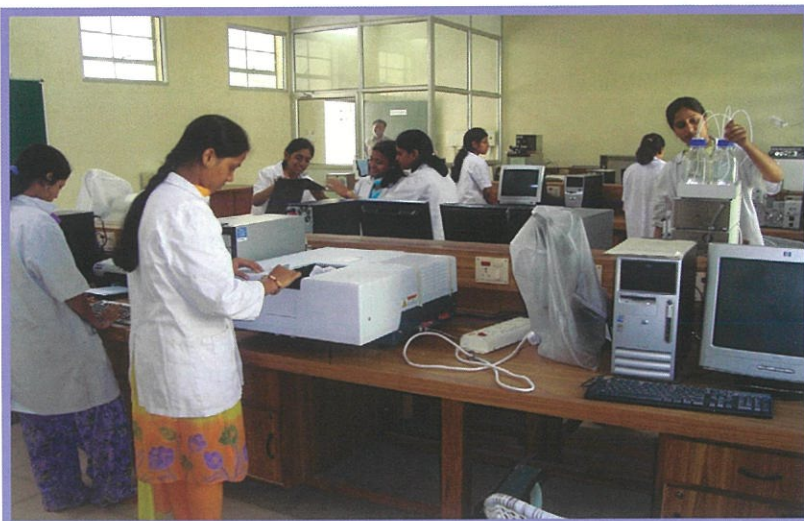
- (i) An Innovative Formula Student Car – A Product Oriented Approach by Ashish Mehta (BE/279/2004), Chintala Hari Rohit (BE/338/2004) and Pratik Kumar Dhaboo (BE/175/2004) BE VIII Semester (Mechanical) was presented at the Auto Expo 2008, New Delhi on January 10-17,2008.
- (ii) An Innovative – Design Mechanism Car developed by Sri Chandan Sharma, B.E. VI Semester Mechanical was presented at the Auto Expo 2008, New Delhi on January 10-17,2008.

Department of Pharmaceutical Science

The Department of Pharmaceutical Sciences was established in 1972, recognizing the potential of this emerging field of Technology.

The Department has 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 B. Pharm. in Pharmaceutical Sciences and M. Pharm. in Pharmaceutical Sciences- Specializations offered are Pharmaceutics, Pharmaceutical Chemistry, Pharmacology and Pharmacognosy. The courses are recognized by the Pharmacy Council of India and AICTE. The Department also provides facilities for Doctoral Research in various fields of Pharmaceutical Sciences. The Department has modern and sophisticated laboratory and workshop facilities for this purpose.

General Information

Addition of equipment

1. FTIR
2. HPLC
3. GC
4. DSC

Addition of faculty members : 4

Research projects : 01

Sl. No.	Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanction Amount	Duration of the project	Expected Time of Completion
1.	Special Assistance Programme of UGC	Head, Department of Pharm. Scs., BIT, Mesra	UGC	June 2007	65 lacs	5 years	June 2011

Ph.D. Awarded : 2

1. Ph. D. degree awarded to Prof. S. Samanta from BIT, Mesra in the Department of Pharmaceutical Sciences. Thesis Title: Synthesis and Studies on some Pieridine analogues.
2. Ph.D. degree awarded to Mrs. Sanjita Das from BIT, Mesra in the Department of Pharmaceutical Sciences. Thesis Title : The phytopharmacological studies of ethanolic extracts of Flowers, Barks and Seeds of *Nyctanthes Arborescens*. Linn

Ph.D. Thesis submitted: 7

1. Ph.D. Thesis has been submitted by Prof. S. M. Verma Thesis Title : Studies on Some Azabicyclononane analogs
2. Ph.D. Thesis has been submitted by Mr. D.M. Kar Thesis Title: Synthesis and Pharmacological Studies of Some Nitrogen Heterocyclic compounds with special interest on indole derivatives.
3. Ph.D. thesis has been submitted by Mr. A. K. Misra Thesis Title: Interactions of Cow's ghee with some drugs and its Significance.
4. Ph.D. thesis has been submitted by Mr. Gurvinder Singh Thesis Title: Identification of Novel cardioprotectives for applications in cardiomyopathies.
5. Ph.D. thesis has been submitted by Manju Misra Thesis Title Thermodynamic approach to Drug Excipient Interactions
6. Ph.D. thesis has been submitted by S.laddha Thesis Title : Development of fused pyridopyrimidines and Theinopyrimidines as possible phosphodiesterase inhibitors
7. Ph.D. thesis has been submitted by Rashmi Kulshrestha Thesis Title: "Chromatographic methods for detection and control of aflatoxins in selected medicinal plants".

Ph. D. Registration : 16

Sl. No.	Title of the Thesis	Name & Address of the candidate
1	"Antimicrobial and Cytotoxic Screening of some Traditional Plants from South India".	Mr. Saravana Kumar A. Assist. Professor, Dept. of Pharm. Sciences, Nandha College of Paramedical Sciences, Koorapalayam Pirivu Erode – 638052 (T.N.)

2	"Design, Synthesis and Evaluation of Some Novel quinazoline analogs".	Mr. Suresh Kumar K. <i>Assist. Professor,</i> K.M.C.H College of Pharmacy, Coimbatore – 641 035 (T.N.)
3	"Synthesis, Pharmacological and Antimicrobial Evaluation of Heterocyclic Semicarbazones".	Mr. Ponnilaravasan I. <i>Assist. Professor,</i> KMCH College of Pharmacy Coimbatore – 641 035
4	"Standardization of an Ayurvedic Formulation Know as Arjunarishta".	Mr. Manish Verma <i>Reader, Arya College of Pharmacy,</i> RIICO Industrial Area, Jaipur – Delhi Highway Kukas, Jaipur
5	"Phytochemical and Pharmacological Evaluation of Some Taxa of the Controversial Ayurvedic Drug Pashanabedha".	Mr. A. Cendil Kumar <i>Assist. Professor</i> M.S. Ramaiah, College of Pharmacy M.S. Ramaiah Nagar, Bangalore – 560 054
6	"Nanosuspension Parenteral Aqueous Formulations: Development, Characterization & Evaluation".	Mr. Ramdas Manakkote <i>Sr. Research Scientist</i> NDDR – Pharmaceutics Ranbaxy Research Laboratories Sector – 18 UV Industrial Area Gurgaon – 122 015 (Haryana)
7	"Biological Evaluation of certain Novel 1-substituted- 2 methyl Imidazole derivatives".	Mr. Baskar Lal, <i>QIP research scholar,</i> Department of Pharmaceutical Scs, Birla Institute of Technology, Mesra, Ranchi-835215, Jharkhand.
8	"Evaluation of Antitumour potency on chemical induced rat mammary carcinoma model and immunomodulatory activities of a hemiparasite Dendrophthoe falcata (L.F) Ettingsh".	Mr. S.P. Pattanayak, <i>Lecturer</i> Department of Pharmaceutical Scs, Birla Institute of Technology, Mesra, Ranchi-835215, Jharkhand.
9	"Design, Synthesis and Evaluation of some Novel Quinazoline analogs".	Mr. Suresh Kumar, <i>Lecturer,</i> KMCH College of Pharmacy, Kovai Estate, Kalapatti Road, Coimbatore-641035

10	"Formulation, Development and Evaluation of Osmotic Drug Delivery system of some drugs"	Mr. Garvendra Singh Rathore, <i>Lecturer,</i> LBS College of Pharmacy, Jaipur-302004(Rajasthan)
11	"Invitro and In-Vivo evaluation of Mesalazine Polysaccharide Matrix Tablet for Colonic drug delivery".	Mr. B. Srinivasa Rao, <i>Dr. Reddy's Laboratories Ltd,</i> Survey Nos,42,45 and 46, Bechupally, Qutubullapur, RR Dist-500072(A.P.)
12	"Modulator of Nuclear Factor Kappa B activity through Antioxidant potential of Lagenaria siceraria".	Mr. Anand Vasant Deshmukh, 124, Naringe Nagar, Dhamangaon Road, Yavatmal(MS)445001
13	"Evaluation and formulation of some antioxidant from natural sources".	Mr. Gouri Anup Paloskar, <i>Lecturer,</i> Sterling Institute of Pharmacy, Plot No.93, Sector-19, Nerul(E) Navi Mumbai-410210
14	"Pharmacological studies on some potential Imidazole analogs".	Mr. Veerma Ram, S. Bhagwan Singh PG Institute of Biomedical Scs, Balawala , Dehradun-248161
15	"Phytochemical and Pharmacological studies on some Ethnomedicinal plants of Thar desert".	Mr. Manoj Goyal, <i>Lecturer,</i> Lachoo M. College of Science and Technology, Pharmacy Wing, Sector A, Shastri Nagar, Jodhpur-342003(Raj)
16	"Studies on the Molecular Mechanism of Glutamate transporters in Glutamate Homeostasis during cerebral Ischemia/ Reperfusion injury".	Mr. Raj Kumar Verma, <i>Divn of Pharmacology,</i> CDRI, Chattar Manzil, Lucknow

Awards/Citations bestowed on faculty members and students

1. Sasmal,D., Kar, D. M ., Maharana L., and Si, S S. Best Paper Award by Indian Drug Manufacturing Association (IDMA) for the paper entitled Synthesis & Evaluation of CNS activity of some Spiro isatinoid compounds in Indian Drugs, 43(9), 2006, 733-739, 2007.
2. Biographical profile of Verma, P. R. P. listed in 1st Edition of Marquis Who's Who in the Asia ® published in 2007. Verma, P. R. P. is nominated as referee of International/National repute Journals – Indian Journal of Pharmaceutical Sciences and Journal of Pharmaceutical Research.
3. Biographical profile of Ganguly, S. has been listed in 10th Anniversary (2008-2009) Edition of Marquis Who's Who in Science and Engineering published in December 2007.

4. Manik, and Sinha, B. N. Received Special Appreciation Prize for Optimization of Total Alkaloid Yield from *Litsea polyantha* Juss. Bark Extract by 2² Factorial Design Method" for including Modern techniques in traditional methods of Isolation, in Oral Session of AICTE Sponsored National Seminar on Emerging Trends in Pharmaceutical Education & Research Royal College of Pharmacy & Health Sciences, Berhampur, Orissa: July 20 – 22, 2007
5. Mishra, C. K. received **1st Prize** in the Paper presentation at 1st IAPST Annual National Convention (Orissa) – 2007 on "Role of Pharmaceutical Scientist and Technologist Vs Vision-2020", IAPST, Om Sai College of Pharmacy and Health Sciences, Gopalpur-on-Sea (Ganjam), Orissa 18th November 2007.

No. of students enrolled semester wise in different programmes

(UG and PG level)

Course	Semester	No. of Students
B. Pharm	II	43
	IV	45
	V	03
	VI	32
	VII	02
	VIII	41
	Total	166
M. Pharm	II	43
	IV	38
	Total	81

Ongoing Projects

Sl. No.	Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanction Amount	Duration of the project	Expected Time of Completion
1.	Improvement of Infrastructure for Total Quality Management (TQM) and Good Laboratory Practice (GLP)	Head, Department of Pharm. Scs., BIT, Mesra	AICTE	Feb 2007	38 lacs	5 years	Feb 2011

2.	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
3.	Technical back-up to Rural Industries of Jharkhand	Dr. S Jha, Department of Pharm. Scs., BIT, Mesra	KVIC Mumbai	April 2003	45.00 Lacs	5 Years	2008
4.	Creation of Infrastructure facilities including extension services under the scheme for human resource development	Department of Pharmaceutical Sciences	MFPI	Dec. 2004	50.00	5 Years	Dec 2009

Completed Projects

Sl. No	Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the project
1	Transdermal Delivery of Selected Drugs : Design, In-Vitro and In-Vivo Evaluation	Dr. P. R. P. Verma	UGC	April 2004	7.08	3 Years

Seminar/ Conference/ Short Term course (s) conducted by the Department : 3

1. AICTE sponsored Quality Improvement Programme on Computer Aided Drug Design

- No. of delegates : 20
- Name of dignitaries : Dr. P.K. Barhai, Dean, Collaborative Programmes and Sponsored Research was the chief guest of the inaugural function.
- Resource persons involved : Faculty members of the department and other Departments of interdisciplinary relevance. Resource persons from Jadavpur University, Calcutta University, Nagpur University etc. also delivered lectures
- Period (duration) : Two weeks (May 02,2007- May 15, 2007)

2. Name of the Seminar: AICTE sponsored Quality Improvement Programme on Preformulation Investigations and Their rationale in the fabrication/development of drug delivery system

- No. of delegates : 30

- ii. Name of dignitaries : Dr. A. K. Mukherjee, Calcutta University was the chief guest of the inaugural function.
 - iii. Resource persons involved: Faculty members of the department and other Departments of interdisciplinary relevance. Resource persons from Jadavpur University and Calcutta University etc. also delivered lectures.
 - iv. Period (duration) : Two weeks (May 17,2007- May 30, 2007)
- 3. Name of the Seminar: AICTE sponsored Quality Improvement Programme on Recent Trends in Herbal Drug Research**
- i. No. of delegates : 35
 - ii. Name of dignitaries : Mr. C. K. Katiyar, Ranbaxy Lab was the chief guest of the inaugural function.
 - iii. Resource persons involved: Lectures were delivered by eminent scientists from Ranbaxy Research Laboratory, Dabur Research Foundation, National Botanical Research Institute and also renowned Professors from reputed universities.
 - iv. Period (duration) : Two weeks (June 02,2007- June 15, 2007)

Publications

Research Publication in Journals

1. Gothwal, R.K., Nigam,V.K., Mohan, M.K., Sasmal, D., and Ghosh, P. "Extraction of bulk DNA from Thar Desert soils for optimization of PCR-DGGE based microbial community analysis", Electronic Journal of Biotechnology, 10(3), 400-408. 2007.
2. Das, S., Basu, S.P., Sasmal, D. "Anti-inflammatory activity of the different parts of *Nyctanthes arbortristis* Linn", Ethiopian Pharmaceutical Journal, 24(2), 125 – 129, 2006.
3. Sasmal, D., Pattnaik, A.K., Pattnaik, S., and Kar, D. M. "Hepatoprotective activity of leaves of *Urtica parviflora* Roxb." Hamdard Medicus, 50(1), 72 – 75, 2007.
4. Putrachimani, V., and Jha, S. "HPTLC Standardization of *Tinospora cordifolia* using *Tinosporaside*", Indian Journal of Pharmaceutical sciences, 578-581. July August, 2007.
5. Misra, A.K., Misra, M., Panpalia, G.M., and Done, A.K. "Interaction study of paracetamol with Saturated (Capric) and Unsaturated (Oleic) Fatty Acids", Pharm. Dev. Techno, 112, 1-6, 2007.
6. Misra, A.K., Misra, M., Panpalia, G.M., and Dorle, A.K. "Thermoanalytical & Microscopic Investigation of Interaction between Paracetamol & Fatty Acid Crystals", J. Macromol. Sci., Part A: Pure & Applied Chemistry, 44, 685-690, 2007.
7. Misra, M., Misra,A.K., and Panpalia,G.M. 'Interaction Study between *Pejioxacin* Mesilate and some Diluents using DSC supported with Isothermal Method", J. Therm. Anal. Calorim., 89 (3), . 803-808, 2007.
8. Mishra, A.K., Mishra, M., Panpalia, G.M., and Dorle, A.K. "Investigation of mechanism of Release of *Acetaminophen* from Cow's Ghee and it's Saturated Fatty Acids", J.Pharm. Res.(accepted).
9. Misra, A.K., Misra, M., Zope, P., Panpalia, G.M., and Dorle, A.K. "Formulation and Evaluation of *Nitrofurazone* Gel Containing Cow Ghee", PHARMBIT, 15, 67-71. 2007.
10. Deshmukh, A.V., Panpalia, G.M., and Dorle, A.K. "Role of Antioxidants in the Inhibition of Free Radical Mediated Activation: Adjunct Therapy in the Treatment & Prevention of Dreaded Disorders", PHARMBIT, 2008 (in Press).

11. Gupta R.N., Sahoo S.K., Guru P.R., Barik B.B., Behara B.C. "Formulation and in-vitro Evaluation of Ethyl Cellulose Microspheres containing Anti HIV Drugs". *Pharmbit*, vol.XV, 61, 2007.
12. Gupta R.N, Nandy B.C., "Spectrophotometric method for analysis of Atenolol Gel", *The Pharma Review*, 146, 2007.
13. Jha S, Mazumder R, "Studies on Pharmacognostical features of *Curcuma domestica*", *Ancient Science of Life*, XXVI (4), 37-41, 2007.
14. Jha S, Rural Technology Cell, BIT Mesra, Ranchi, Udyog Mela Souvenir, 49-51, 2007.
15. Ganguly, S., and Razdan, B.K., "Synthesis of Novel 2-Methylimidazole Derivatives". *Indian Journal of Heterocyclic Chemistry*, 17, 87-88, 2007.
16. Ganguly, S., Mazumder, P. M., Sasmal, D., Panpalia, G.M., Jha, S., Panpalia, S.G., and Chandra, R. "Spirulina as a green remedy—An Overview Science and Culture " (accepted).
17. Ganguly, S., and Banerjee, S. Synthesis, "Antifungal activity and Molecular Modelling Studies of Some Novel 1-Substituted 2-methylimidazole Analogs", *Indian Council of Chemists* (accepted and in press).
18. Ganguly, S., and Somakala, K. "Synthesis and Screening of N-(Aryl)-2-(2-Methyl-4-Nitro-1H-Imidazol-1-yl-) Acetamides for Antibacterial Activity". *Journal of Institution of Chemists* (in press).
19. Ganguly S., and Banerjee, S. "3D-QSAR Studies of Imidazole Derivatives as *Candida albicans* P450 – Demethylase Inhibitors". *Asian Journal of Chemistry* (in press).
20. Ganguly, S., and Bhatnagar S. P. "Development of a Computerized Database for Identification of Indigenous Drugs". *Pharmacognosy magazine* (in press).
21. Ganguly S., and Murugesan, S. "Molecular Dynamics - A Versatile Tool For Drug Design", *Pharmbit*, Vol. Xv, No. 1, 43-47, 2007.
22. Mishra, S., Singh, G., Jha, U., and Ganguly,S. "Long term leaching studies on Coal Combustion residues from Balco Captive Power Plant, Korba". *Indian Journal of Chemical Society* (accepted).
23. Sinha, B. N., and Manik. "Internet Based Drug Discovery & Development – A New Approach" in *Souvenir of 24th All India Annual Conference of Indian Pharmacy Graduates' Association*, Bihar State Branch, Patna, Bihar, 2007.
24. Manik, and Sinha, B. N. "Software on Inflammatory Diseases" *PHARMBIT XV* (1), 30-38, 2007.
25. Lata, D. B., Chandra, R., Kumar, A., Misra, A. "Effect of light on generation of hydrogen by *Halobacterium halobium* NCIM 2852". *Int. J. Hydrogen Energy* 32, 3293-3300, 2000.
26. Chandra, S., Sharma, H .P. Chandra, R. and Jha, S. "Spilanthes species: Medicinal herbs" *Pharmbit-XV* (1), 17-22.
27. Venkatesan J., Pandeya S. N., and Selvakumar, D. "Synthesis and biological evaluation of 4, 6-diaryl substituted-4,5-dihydro-2-amino pyrimidines". *Indian Journal of Pharmaceutical Sciences*, 69(4), 586-589, 2007.
28. Verma, P.R.P. Khuroo, A., Monif T., and Gurule, S. "Simple Economic and Reproducible Liquid Chromatographic Mass Spectrometric Method for Determination of Amoxicillin in Human Plasma Using Ampicillin as Internal Standard". , *J. Chromatographic Sci.* (accepted).

29. Verma, P.R.P., and Chandak, A. R. "Transdermal Delivery of Methotrexate Using Mixed Grades of Eudragit: Physico - chemical, In-vitro, and In-vivo Evaluations". Clin. Res. Regulatory Affair (accepted).
30. Verma, P.R.P., and Chandak, A. R., "Development and Evaluation of HPMC Based Matrices for Transdermal Patches of Tramadol", Clin. Res. Regulatory Affair 25 (1) 13-30, 2008
31. Verma, P.R.P. and Razdan, B.K. "Studies on Disintegrant Action of *Leucaena leucocephala* Seed Gum in Ibuprofen Tablet and its Mechanism", J.Sci.Ind.Res. 66, 550-557M, 2007.
32. Verma, P.R.P., Verma, S.M., and Chandak, A. R. "Spectrophotometric Analysis of Pentazocine and its Validation", J. of Institution of Chemists, 79 (6), 167-168, 2007.
33. Verma, P.R.P., Verma, S.M. and Chandak, A. R. "Spectrophotometric Analysis of Valdecoxib and Validation", J. of Institution of Chemists, 79(6) 182-183, 2007.
34. Verma, P.R.P., Verma, S.M., and Chandak, A. R. "Spectrophotometric Analysis of Methotrexate and its Validation", J. of Institution of Chemists 79(5), 159-160, 2007.
35. Verma, S.M., and Gunakunnaru, A. "QSAR of Riluzole Series as anticonvulsants", Asian Journal of Chemistry, 19(4), 2843-2849, 2007.
36. Verma, S.M., Verma, P.R.P. and Chandak, A.R. "Spectrophotometric analysis of pentazocine and its validation". Journal of Institution of Chemists, 6, 2007, 167-168,
37. Poonia, B. S., Sasmal, D., and Mazumder, P. M. "Antidiarrheal activity of *Litsea polyantha*", Fitoterapia, 78(3), 171 – 174, 2007.
38. Arulmozhi S., Papiya Mitra Mazumder, Purnima Ashok, Balsavaraj Hulkoti and L. SathiyaNarayanan, "Antinociceptive and Antiinflammatory activities of *Alstonia scholaris* Linn. R.Br", Pharmacognosy Magazine, 3(10), 106 – 111, 2007.
39. Arulmozhi S., Mazumder, P. M., Ashok, P., and SathiyaNarayanan, L. "Pharmacological activities of *Alstonia scholaris* linn (Apocynaceae) – A Review", Pharmacognosy Reviews, 1(1), 163 – 170, 2007.
40. Verma, P.R.P. and Chandak, A.R. "Design and Development of HPMC Based Polymeric Films of Methotrexate: Physicochemical and Pharmacokinetic Evaluations. Yakugaku Zasshi"- In press.
41. Mazumder P. M., and Sasmal, D. "Comparative Assessment of the mycotoxins Citrinin and Fumonisin on the liver function and metabolism in mice". National Academy Science Letters (5&6), 177 – 181, 2007.
42. Mazumder, P. M., and Sasmal, D. "Self Medication – Practice Caution!" Pharmbit 15 (1), 48 – 52. 2007.
43. Mazumder, P. M., Sasmal, D. and Nambi, R. A. "Antiulcerogenic and antioxidant effects of *Coccinia grandis* (Linn.) Voigt in aspirin induced gastric ulcer in rats", Natural Product Radiance (accepted).
44. Mazumder, P. M., and Choudhary, R. K. "Preliminary wound healing activity of the leaf extracts of *Barleria cuspidata heyne ex nees*" Indian Journal of Natural Products (accepted).
45. Sharma, L.K., and Kumar, A. "Traditional medicinal practices of Rajasthan. Indian Journal of Traditional Knowledge", NISCAIR, CSIR—New Delhi, 6 (3), 531-533, 2007.
46. Manik. "Biostatistics Analysis Tools from Microsoft Excel. Pharmawave" The Technical Journal of Pharmacy and Health Dr B C Roy College of Pharmacy and Allied Health Sciences, (2/07), 71-81, 2007.

Proceedings

1. Pattanayak, S.R., Sunita, P., P. Mitramazumder, Sasmal, D., and Panda, P.K. "*Nude Mouse Xenograft Assay for the evaluation of the antitumor activity of the ethanolic extract of the hemiparasitic plant, Dendrophthoe Falcata*" presented in APTI Annual National Convention held at University Institute of Pharmaceutical Sciences, Punjab University, Chandigarh, October 25-27, 2007.
2. Kumar, J.K, Verma, S.M., Samanta S., Verma, P.K., and Prasad C.M., "*Gums and Modified Gums in conversion of Traditional Ayurvedic formulations into Unit Dosage Form*". National Seminar on Value Added Products of Commercial Importance from Natural Resins and Gums held at Indian Institute of Natural Resins and Gums , Namkum, Ranchi, September, 20-21, 2007.
3. Baskar, L., Nagalakshmi, G., Mazumder, P. M., Sasmal, D., Ganguly S., and Murugesan, S. "*A comparative invitro antimicrobial efficacy of certain 2-substituted oxazole derivatives: Synthesis and depiction*" presented in APTI Annual National Convention held at University Institute of Pharmaceutical Sciences, Punjab University, Chandigarh, October 25-27, 2007.
4. Bhattacharya, S., Basu, A., Jasu, K., and Venkatesan J. "*Development of ComFA and ComSIA Models of Cytotoxicity data of AntiHIV 1-Phenylamino-1H-Imidazole derivatives*". MCBR held at Indian Institute of Chemical Technology, Hyderabad from September 26-29th, 2007.
5. Venkatesan J., Basu, A., Sinha, B.N., and Jasu, K. "*HDAC inhibitors. ComFA and ComSIA of Benzamide class of hydroxamates*" presented in MCBR. Indian Institute of Chemical Technology, Hyderabad, September 26-29, 2007.
6. Ganesh, M., Aruna, M., Jagdeswaran, M, M. Kamalakannan, V., Ganguly S., and Sivakumar. T. "*Development and Validation of New RP-HPLC analytical techniques for Letrozole in Bulk and its Solid dosage*" presented in the Trends in Pharmaceutical Sciences -2007 presented at Silver Jubilee Celebration of Department of Pharmacy, Annamalai University, Tamil Nadu, October 30-31, 2007.
7. Banerjee, S., Ganguly, S., and Chandra,R. "*Synthesis, antifungal activity and Molecular Modeling studies of some novel 1-substituted 2-methylimidazole analogs*" presented in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th to 24th December 2007.
8. Patil, A., Ganguly, S., Suranaand, S., and Hundiware, J. "*Synthesis of Benzimidazole derivatives as an antiulcer agent*" presented in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th to 24th December 2007.
9. Ganesh, M., Patil, R., Thangabalan, B., Thakur, D., Ganguly, S. and Sivakumar, T. "*UV Spectrophotometric determination of Oxaprozin in pure and pharmaceutical formulation*" presented in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th to 24th December 2007.
10. Patil, R., Thangabalan, B., Rajavel, R., Thakur, Dinesh, Ganesh, M., Ganguly, S., and Sivakumar, T. "*New validated RP-HPLC method for the estimation of Oxaprozonin bulk and solid dosage form*" presented in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th to 24th December 2007.
11. Upadhyay, S., Jagadeswaran M., Tiwari, R. Kamalakrishnan., Ganguly, S., and Sivakumar, T., "*An u.v. spectrophotometric determination of letrozole in bulk and solid dosage form*" presented in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th to 24th December 2007.
12. Ganguly, S., and Banerjee, S. "*3D-QSAR Studies of Imidazole Derivatives as Candida albicans P450 – Demethylase Inhibitors*" presented in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th to 24th December 2007.

13. Kumar, J.K., Patra, K.C., Prasad, B., and Rathi, C. "*Modified Gums in Novel Drug Delivery Systems presented at National Seminar on Value Added Products of Commercial Importance from Natural Resins and Gums*" held at Indian Institute of Natural Resins and Gums, Namkum, Ranchi from 20-21 September 2007.
14. Mishra, C.K., and Patnaik, A.K. "*Antipyretic Activity of Methanolic Extract of Unripe Fruits of Cassia carandas*". Presented at 24th All India Annual Conference of Indian Pharmacy Graduate Association, Patna held at Om Sai College of Pharmacy and Health Sciences, Gopalpur On Sea (ganjam), Orissa on 18th November 2007.
15. Manik & Sinha, B. N., "*Phytochemical and Pharmacological studies on Litsea polyantha Juss. Bark Extract*" in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th to 24th December 2007.
16. Gope, R., Manik and Chattoij, P. "*Alzheimer's Disease: Search for New Alternative Treatments*" presented in 1st IAPST Annual National Convention (Orissa) – 2007 on Role of Pharmaceutical Scientist and Technologist Vs Vision-2020, IAPST, Om Sai College of Pharmacy and Health Sciences, Gopalpur-on-Sea (Ganjam), Orissa 18th November 2007.
17. Gope, R., Manik, and Brahma, S. K. "*Ageing: Major Nutritional Problems and Requirements*" presented in 1st IAPST Annual National Convention (Orissa) – 2007 on Role of Pharmaceutical Scientist and Technologist Vs Vision-2020, Indian Association of Pharmaceutical Scientist and Technologist, Om Sai College of Pharmacy and Health Sciences, Gopalpur-on-Sea (Ganjam), Orissa: 18th November 2007.
18. Manik, and Sinha, B. N." *Anti-Diarrheal Activity of Water Extract of Litsea polyantha Juss. Bark in Mice supported by its Anti-Diarrheal Affect on Goats*" presented in National Seminar on Value Added Products of Commercial Importance from Natural Resins and Gums, Indian Institute of Natural Resins and Gums (Formerly Indian Lac Research Institute), Namkum, Ranchi: 20th to 21st September, 2007
19. Manik, ,Sinha, B. N. "*Optimization of Total Alkaloid Yield from Litsea polyantha Juss. Bark Extract by 22 Factorial Design Method*" presented in AICTE Sponsored National Seminar on Emerging Trends in Pharmaceutical Education & Research Royal College of Pharmacy & Health Sciences, Berhampur, Orissa: 20th to 22nd July, 2007.
20. Manik., "*Computer Assisted Drug Design: An Emerging Trend in Pharmaceutical Research*", presented at AICTE Sponsored National Seminar on Emerging Trends in Pharmaceutical Education & Research Royal College of Pharmacy & Health Sciences, Berhampur, Orissa: 20th to 22nd July, 2007
21. Manik, and Roy, D. "*Medication Related Problems in Geriatric Patients*" presented in IPA & APTI State Level Convention 2007 on Emerging Trends in Pharmaceutical Technology & New Drug Discovery Jeypore College of Pharmacy, Rondapalli, Jeypore, Orissa: 11th April, 2007
22. Mazumder, P. M., Datta, R., Manjee, R. N. "*Synthesis and Antibacterial activity of some novel semisynthetic derivatives of Lac*", presented in Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
23. Priyashree, S., Pattanayak, S. P., Mazumder, P. M., Sasmal, D. "*Nude Mouse Xenograft assay for the evaluation of the antitumor activity of the aqueous extract of the hemiparasite plant Dendrophthoe falcate*", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007
24. Pattanayak, S.P., Sunita, P., Pattanayak, A.K., Mazumder, P.M., and Dhal, N.K. "Determination of MIC value by Gradient plate technique and in vitra antifungal activity by TLC Plate method of the isolated

- compound Gedunin, from the plant *Azadirachta indica*", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007
25. Pattanayak, S. P., Sunita, P., Mazumder, P. M., and Panda, P. K. "Evaluation of Antitumor activity of the ethanolic extract of *Hygrophilla spinosa* on 7,12- Dimethylbenz[a] Anthracene – induced rat mammary carcinoma model", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
 26. Mazumder, P. M. Sasmal, D., Choudhary, R. K., Agarwal, V. K. "Evaluation of wound healing activity of the leaves of *Barleria cuspidata* Heyne ex Nees in rats", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
 27. Sasmal, D., Mazumder, P. M. Kumar M. P., and Sahoo, M. K. "Evaluation of Antiinflammatory activity of *Salvia splendens* Sello ex Roem & Schult using different animal models", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007
 28. Mazumder, P. M., Sasmal, D., Mondal, S., and Choudhary, M. K. "Evaluation of Antiulcer activity of the flowers of *Pterospermum acerifolium* (L) Willd using different ulcer models", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
 29. Mazumder, P. M., Sasmal, D., Mondal, S., and Kum, A. "Evaluation of hepatoprotective activity of the flowers of *Pterospermum acerifolium* (L) Willd, ar", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007
 30. Arulmozhi S., Mazumder P. M., Ashok, P., Sathiya Narayanan, L. "In vitro antioxidant and free radical scavenging activity of *Alstonia scholaris* Linn", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
 31. Baskar. Nagalakshmi, G., Mazumder, P. M., Sasmal, D., Ganguly, S., and Murugesan, S. "Wound healing and an antimicrobial efficacy of *Ixora coccinea* Linn root extracts, L". Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007
 32. Verma, P. R. P., and Chandak A. R. "Controlled Transdermal Delivery of Tramadol using HPMC Matrices." National Symposium on Controlled Release in Infection and Cancer, Controlled Release Society (Indian Chapter) – CDRI, Lucknow, June 2007, Lucknow.
 33. Verma, P. R. P., and Chandak A. R. "Formulation and Characterization of Eudragit based Methotrexate Transdermal Delivery System", National Symposium on Controlled Release in Infection and Cancer, Controlled Release Society (Indian Chapter) – CDRI, Lucknow, Lucknow, June 2007.
 34. Verma, P. R. P., Chandak, A. R., and Singh, S. K. "Design and Evaluation of Pentazocine transdermal Films Using Mixed Grades of Eudragit." National Symposium on Controlled Release in Infection and Cancer, Controlled Release Society (Indian Chapter) – CDRI, Lucknow, Lucknow, June 2007.
 35. Verma, P. R. P., and Chandak, A. R. "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.
 36. Verma, P. R. P., Sarkar, A., and Chandak, A. R. "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.

37. Verma, P. R. P., and Chandak, A. R. "*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.
38. Verma, P.R.P., Razdan, B.K., Sinha, N., and Singh, S. K. "*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.
39. Verma, P.R.P., Razdan, B.K., and Singh, S. K. "*Development of Self Microemulsifying Drug Delivery System of Glibenclamide II: Evaluation and Characterization*", 1st International Pharm. Tech IAPST Conference on Drug Delivery and Drug Targeting Research, Jadavpur University, Kolkata, Jan 2008.
40. Rose, M.F., Sasmal, D., Sinha, B.N., Ganeshan, V., Noorulla, K.M., and Maragatham, N. "*Polymorphism and characterization of Diltiazem HCl*", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
41. Kar, D.M., Sarangi, P.K.N., Sasmal, D. "*Antiepileptic activity of some new isatinoid compounds in mice*", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
42. Das, S., Sasmal, D., Basu, S.P. "*Antiinflammatory and antinociceptive activity of Arbortristoside A*", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
43. Goyal, M., Nagore, B.P., and Sasmal, D. "*Anticnvulsant and CNS depressant activity of Capparis decidua*", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
44. Verma, S.M., Saha, A., and Kumar, V. "*Design, Synthesis and Anticonvulsaant evaluation of some aromatic sulfonamides*", Proceedings of 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
45. Verma, S.M., Saha, A., and Kumar, V. "*3DQSAR Study of N-substituted Guanidine derivatives as a NMDA receptor antagonists*", Proceedings of National Seminar on Recent Trends in Drug Discovery, Bilaspur, 18-19 Jan., 2008.
46. Gupta, R. N. "*Tracer Study Cell*", Proceedings of National conference at BIT SINDRI in June 2007.
47. Gupta, R.N. "*Better Health Care with less than half Budget Through Hospital Pharmacy Services*", Proceedings of IPGA Conference Souvenir 2007.

Books: (Under Publication)

1. S. Jha. Parampragat Ausadhiyon ka Sudhar aur Pralekhikaran
2. S. Jha. Sugandhit Paudhe ki Kheti aur Bazar.

Patents

Applied: "Novel Orally administrable antidiabetic compounds, process for producing them and therapeutic compositions containing the same"- published in Patent Journal – October 2006 by Prof. S. Samanta.

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

1. Manik. Sarkar, B. attended "National Workshop on Clinical Research and Clinical Database Management" organized by Bioinformatics Infrastructure Facility, Presidency College, Kolkata in collaboration with Institute of Computational Biology, Bangalore at Presidency College, Kolkata: Jan. 31-Feb 02, 2008

2. Sasmal,D., Sinha, B. N., Samanta, S., Gupta,R. N., Mazumder,P. M., Patnaik, A. K., Venkatesan, J., Manik., Basu,A., Basu, N. M., and Pattanayak, S. P. attended 59th "Indian Pharmaceutical Congress", BHU, Varanasi: December 20-23, 2007.
3. Manik. attended 1st IAPST Annual National Convention (Orissa) – 2007 on "Role of Pharmaceutical Scientist and Technologist Vs Vision-2020", IAPST, Om Sai College of Pharmacy and Health Sciences, Gopalpur-on-Sea (Ganjam), Orissa: Nov 18, 2007
4. Sasmal,D., Samanta, S., Kumar, Jayaram., and Manik attended National Seminar on "*Value Added Products of Commercial Importance from Natural Resins and Gums*," Indian Institute of Natural Resins and Gums (Formerly Indian Lac Research Institute), Namkum, Ranchi: September 20-21, 2007.
5. Manik., Sarkar, B., and Dev, A. attended National Workshop on "*Functional Genomics of Prokaryotes*", organized by BTISnet SubDIC, Department of Biotechnology, BIT, Mesra & Department of Biotechnology, Govt. of India, New Delhi: September 10-15, 2007.
6. Manik attended AICTE Sponsored National Seminar on "*Emerging Trends in Pharmaceutical Education & Research*" Royal College of Pharmacy & Health Sciences, Berhampur, Orissa: July 20-22, 2007.
7. Manik attended IPA & APTI State Level Convention-2007 (Orissa State Branch) on "*Emerging Trends in Pharmaceutical Technology & New Drug Discovery*", Jeypore College of Pharmacy, Rondapalli, Jeypore, Orissa: April 11, 2007.
8. Sharma, L. K. attained workshop on: "*Revision of National Forestry Plan : Research Priority setting, at Institute of Forest Productivity*", (ICFRE), Lalgutwa, Ranchi. 29th June (2007)
9. Sharma, L.K.attained training programme on : "*Role of Geoinformatics in Natural Hazards Management*" Sponsored by DST, at Dept. of Remote Sensing, Birla Institute of Technology, Mesra-Ranchi. 19-24 November (2007)
10. Sharma, L. K. attained the online EDUSAT Based training programme on : "*Remote Sensing & GIS by IIRS Dehradun*" at Dept. of Remote Sensing, Birla Institute of Technology, Mesra-Ranchi, (2007).
11. Sharma, L. K. attained the online Based training programme on : "*Disaster Management*" Conducted by NIDM-New Delhi and World Bank, (2007).

Additional Information

1. Sasmal, D. presided as the Chairperson for Pharmacology and Toxicology sessions in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
2. Sinha, B. N. presided as the Chairperson for Medicinal Chemistry and Phytochemistry sessions in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007.
3. Gupta, R. N. was nominated as co-Chairman in National Body of Pharmaceutical Conference held at BHU in 2007 and also presided as the Co-Chairperson for Hospital and clinical Pharmacy sessions in 59th Indian Pharmaceutical Congress, BHU, Varanasi, 20th – 23rd December, 2007
4. Sasma,I D. presided as the Chairman for 'Sessions III – Application of Natural Resins and Gums in Food /Pharmaceuticals' in National Seminar on Value Added Products of Commercial Importance from Natural Resins and Gums, Indian Institute of Natural Resins and Gums (Formerly Indian Lac Research Institute), Namkum, Ranchi: 20th-21st September, 2007.
5. Gupta, R. N. was invited as a guest speakers at national conference at Patna in Sept'07 of IPGA and Jadavpur University in qip workshop in Aug'07.

6. Gupta, R. N. was also invited to attend as advisor in SEARPharm Forum (South East Asia Regional PHARM forum) Conference in Oct '07 at New Delhi.
7. Gupta, R. N. was elected as the vice President of IPA Jharkhand branch & Central Executive Council Member of Indian Pharmaceutical Association.

Visiting lectures arranged by the Department

- Kunal, R. Reader, Department of Pharmaceutical Technology, Jadavpur University delivered two lectures on QSAR in May 2007.
- Dorle, Professor Emeritus, Nagpur University delivered a lecture on Adverse Drug Interactions in May 2007.
- Pharmaceutical Society published the Technical Journal Pharmbit during the year. Recently ISSN No. 0973-6204 for the journal has also been obtained.
- Three faculty members left the Department viz., Bhattacharya, S. Mazumder, R., and Mazumder, A.

Department of Polymer Engineering

The Department of Polymer Engineering established in 1994, recognizing the potential of this emerging field of Technology, 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.

The Department has state-of-art facilities in all the areas of Polymer Science & Engineering – Synthesis, Characterization, Processing, and Product Development & Testing. Department has competent faculty who are committed to research & teaching, and there are regular publications in International Journals of repute. There are several research projects funded by Government Agencies to the credit of the Department.

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 jointly by BIT Mesra and City and Gilds, UK. are: Polymer Technology- Rotomoulding, Polymer Technology – PVC pipe production and Polymer Technology – HDPE pipe Production.



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 Jharkhand 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 a 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.

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 Modelling 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 Synthia, Blends, amorphous cell, DPD and Discover.

The members of the 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 area of Chemical Engineering in Departments of Pharmaceutical Sciences, Biotechnology, Space Engineering and Rocketry and Environmental Science & Engineering. The members of the faculty were also involved in Testing of Polymers and Polymer Product for outside Agencies: Minor Irrigation Division, Dhanbad, Nagarjuna Construction Company Ltd., Bodhi Sales Agency, Ranchi.

TEQIP ACTIVITIES:

Dr. M. Mukherjee coordinates the TEQIP Programme at BIT. Many faculty members are actively involved in the project. Dr Akhil Kumar Sen, Senior Lecturer is engaged in development of Central Instrumentation Facility. Two 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. Under networking activities Dr. Om Prakash, Professor of BIT, Sindri was invited to deliver lectures on Process Control to VIII Semester students.

STUDENTS ACTIVITIES:

Five UG Students qualified in GATE Examination 2008, and Mr Raman Sinha, a sixth Semester B. E. Student has obtained All India 2nd Rank. All students of the Department were taken for one day Industrial visit to Haldia in March 2008. They visited Haldia Petrochemicals, CIPET and RDB Rasayan, a woven Sack Factory. Department's faculty communicated with various Industries to arrange Summer Training and campus Recruitment for students. Interviews were arranged with Good Year Co Ltd. and Haldia Petrochemicals. Ms. Maithili Tummalapalli (M.E. Student) Mr. Prafulla (B.E. Student) received 1st Prize in **Quiz Competition**, and Mr. S. Jaya Kumar (M.E. Student) received 1st Prize in **Seminar Competition**, in the All India Competition, Polymer Quest -2007, organized by Rubber Technology Centre, IIT, Kharagpur on 1st and 2nd October 2007. Ph.D. viva voce Examination was conducted for Mr. R. K. Gangopadhyay. Two Research scholars were admitted for Ph.D. for this academic year. Md. Fahim Ansari registered for PhD under Dr. G Sarkhel (BIT, Mesra, Ranchi), Dr. D. N Goswami & Dr. Bangalibabu (Indian Lac Research Institute, Ranchi), and Mr S.K.J. Rehman under Dr. G.Sarkhel and Dr. M.Mukherjee.

Degree offered

Degree: BE (Polymer Engineering)

No of seats	:	30
Duration	:	4 years

Degree: ME (Polymer Engineering)

No of Seats : 18

Duration : 2 years

Diploma/Certificate courses of Design Development and Training Centre in Plastics Engineering

Certificate courses: Mould Making Technician (Eligibility: ITI Trained Technician)

No of seats : 20

Duration : 1 year

Certificate course : Plastic Processing Machine Operator (Eligibility : Matriculates)

No of seats : 20

Duration : 1 year

PG Diploma: Plastic Processing (Eligibility: Graduate)

No of seats : 20

Duration : 1 year

Integrated Industrial Training programme:[Joint certification by BIT Mesra and City and Guilds, UK.]

Polymer Technology - Rotomoulding,

Polymer Technology – PVC pipe production

Polymer Technology – HDPE pipe Production

Faculty position

Designation	Professor	Scientific Officer	Assistant Scientific Officer	Sr. Lecturer	Lecturer
Number in Position	1	1	1	3	5

Number of Student enrolled /registered with Department

Course	Semester	No. of Students
BE	II	17
BE	IV	16
BE	VI	17
BE	VII	05
BE	VIII	19
ME	II	06
ME	IV	02
Ph.D.		04

Academic Innovations, Research & Development activities**a) Ongoing project**

Sl. No.	Principal Investigator	Project Title	Funding Agency	Date Sanctioned	Sanctioned Amount	Duration (in year)
1	Dr. C Guria	Multi-objective Optimization of Polymerization Reactors	AICTE	18.10.06	Rs7.2 lakhs	3
2	Dr. G.Sarkhel	Development of polymeric hybrid membrane for heavy metal separation	DST Govt of Jharkhand	20.8.07.	4.88 lakhs	3

Project Completed during the year 2006 2007: NIL**Projects submitted**

Sr. No.	Principal Investigator	Project Title	Funding Agency	Proposed Amount (Rs. in lacs)	Duration (in year)
1.	Dr. G. Sarkhel	Development of Non-fluorinated Polymeric membrane for Direct Methanol Fuel Cell	Ministry of New and renewable Energy; R&D and TIFAD Division	4.88	3.0
2.	Dr. S. Goswami	Synthesis of patented Dendrimer-scale-up	DST, Govt. of India, under Collaborative Project with Scientists and Technologists of Indian Origin Abroad Program	3.58	3.0
3.	Dr. Akhil Sen	Design and Development of Coir Fibre Based Low cost air cooler	Central Coir Research Institute, Coir Board, Kerala	9.91	3.0

Seminar/Conference/Short Term Courses conducted by the Department

Department has coordinated a Short Term Training Programme "Testing of Engineering Plastics" for Telecom factory, BSNL Kolkata from 2nd to 5th April 2007.

Publication**International Journal****Published**

1. Choudhury, A., Mukherjee, M., and Adhikari, B. "Recycled milk pouch and virgin low-density polyethylene/ linear low-density polyethylene based coir fibre composites". Journal Applied Polymer Science, 106, 675-685, 2007.
2. Rahul, K. B., and Guria, C. "Thermal degradation of polystyrene in the presence of hydrogen by catalyst in solution", Polym. Degrad. & Stab. 92, 1583 – 1591, 2007.

3. Sen, A. K., Roy, S., and Juvekar, V. A. "Effect of Structure on Solution and Interfacial Properties of Sodium Polystyrene Sulfonate (NaPSS)", Polym. Int 56, 167-174, 2007.
4. Deep Shikha., Jha, U., Sinha, S. K., Barhai, P. K., Sarkhel, G., Nair, K. G. M., Dash, S., Tyagi, A. K., and Kothari, D. C. "Microstructure investigation of alumina implanted with 30 keV nitrogen ions", Nuclear Instruments and Method in Physics Research B, 264, 254-258, 2007.

In press

1. Sarkhel, G., and Choudhury, A. "Dynamic mechanical and thermal properties of PE-EPDM based jute fibre composites". Journal Applied Polymer Science (in press).
2. Sini, N.K. Choudhury, A., and Sarkhel, G. "Progress in Rubber, Plastics and Recycling Technology" (in press).
3. Choudhury, A. "Isothermal crystallization and mechanical behavior of ionomer treated jute/HDPE composites". Materials Science & Engineering A (accepted).
4. Choudhury, A., Ashwini, B., and Sarkhel, G. "Polyamide 66/EPR-g-MA blends: mechanical modeling and kinetic analysis of thermal degradation" Polymers for Advance Technologies (accepted).
5. Kumar, K., Mukherjee, S. K., Pohit, G. "Virtual Manufacturing of Gears with Chip Formation", International Journal of Computer Applications in Technology, In Press.
6. Misra, R. K., and Datta, C. "Mechanical behavior of unidirectional glass fibers reinforced Resol/VAC-EHA Composites at different volume fraction of fibers." Soft Material. (In Press).

International Conference

1. Kumar, K., Mukherjee, S. K., Pohit, G. "Virtual Manufacturing of Spur Gears with Chip Formation", International Conference on Advanced Manufacturing Technologies (ICAMT- 07) Organized by Central Mechanical Engineering Research Institute, Durgapur –713209, West Bengal, India.
2. Kumar, K., Mukherjee, S. K., Pohit, G. "Virtual Manufacturing of Helical Gears with Chip Formation", International Conference on Emerging Challenges in Design and Manufacturing Technologies (ECHDEM 2007), Organized at Sathyabama University, Chennai.
3. Datta, C., and Saw, S. K. "Mechanical and Thermal properties of Jute-Coir Epoxy Hybrid Composites", International conference on Advances in Polymer Science & Technology (POLY-2008) held on Jan 28-31, 2008 at Indian Institute of Technology, New Delhi.
4. Sarkhel, G. delivered a lecture on "Problems and Difficulties with Polio Affected Patients, in Recent Trend in Research and Development in the field of Locomotor Disability", a national seminar on 14 – 15 March 2008.

Seminar/Symposium/Short term course attended by faculty members

- Datta, C. attended a Workshop on "Intellectual Property rights" organized by DST Jharkhand at Ranchi, on 7th and 8th February 2008.
- Mukherjee, M., and Lahane, S. attended "Polyflow Training", conducted by Fluent India Ltd, in Pune, 4.10.07 to 5.10.07.
- Guria, C., Sen, A. K., Sarkhel, G., Datta, C., Goswami, S., and Choudhury, A. visited "Haldia Petrochemicals, Haldia CIPET and RDB Rasayan", along with students on 11.03.2008.

- Choudhury, A. Lecturer, attended “*SERC School on Polymer based composite and Nano Composite*” organized by IIT Delhi, 26.11.07 to 30.11.07.
- Kumar, K., Scientific Officer, Kumar, S. Asstt. Scientific Officer, attended “*Trade fair Die and Mould India – 2008*” at Bangalore, organized by Tools and Gauges Manufacturers Association, 16th and 17th February – 2008.
- Kumar, K., Scientific Officer, Kumar, S. Asstt. Scientific Officer, visited “*Tool room and CAD/CAM facility at CIPET Chennai*” on 18th February 2008.
- Goswami, S., Sarkhel, G., and Choudhury, A. attended Training on “*Polymer Modeling using Materials Studio*”, organized by Accelrys, Bangalore on 19.11.07 & 20.11.07 at BIT Mesra.
- Guria, C., and Mukhopadhyay, P. attended the seminar on “*Measurement Techniques in Fluid Mechanics*” organized by BIT on 01.10.07 to 06.10.07
- Guria, C., Lahane, S., and Kumar, K. attended the seminar on “*MAT Lab training*” organized by BIT on 21.4.07-22.4.07
- Goswami, S. visited laboratory on “*Tissue Engineering*” at Sree Chitra Tirunal Institute of Medical Sciences, Trivandrum on 15.12.07 to 26.12.07.
- Datta, C. attended the Orientation Course on “*Biomedical Technology & Development*” organized by Sree Chitra Tirunal Institute of Medical Sciences & Technology Trivandrum, Kerala on 17.09.07 to 24.09.07
- Sen, A. K. attended the Workshop on “*Electron Microscopy*” organized by NIFFT Ranchi on 02.04.07 to 05.04.07
- Kumar, K. attended workshop on “*Programming & Operating on CNC Machines*” organized by Central Mechanical Engg. Research Institute, Durgapur on 10.09.07 to 14.09.07
- Kumar, K. attended “*Siemens UGS Connection INDIA’ User’s Conference 2007*”, organized by SIEMENS, Kolkata on 18.08.07
- Kumar, K. attended training Programme on “*UGNX4 CAD CAM*” organized by TCS, Kolkata on 04.06.07 to 06.06.07
- Mukherjee, M., and Guria, C. visited United Technology Research Centre, Hartford, USA for collaborative project on Water desalination using Direct Contact Membrane Distillation (DCMD) Technique from 27th May to 7th June 2007.
- Mukherjee, M. was invited by CIPET, Chennai to attend board of studies meeting for UG courses on 4th February 2008.
- Mukherjee, M. attended a seminar and chaired a session on “*Keys to Success in Plastic Processing Industries*” organized by Organization for Plastics Processor (OPP) and German Plastics & Rubber Manufacturer Association, VDMA at Mumbai on 14-15th February, 2008.
- Sen, A. K. visited “*BSNL Telecom Factory*”, Alipore, Kolkata for technical discussion on thermo chronic and heat shrink material on 9-10th April 2007.
- Sarkhel, G., and Sen, A. K. were involved as a Guest lecturer in QIP programme on “*New Drug Delivery System*” at BIT Mesra May 30 to 12th June’07 conducted by the department of Pharmaceutical Science on (i) Molecular Modeling and (ii) Nano-Technology & its application; Light scattering respectively.

- Staff of the Department attended the several workshop: *"MS Office and Flash Adobe Premier Sound Forge, Photoshop and Power Point"* organized by BIT on 7.5.07-19.5.07. *"Welding & Fabrication"* organized by BIT on 19.2.07-22.2.07, *"Familiarization with Modern Equipments"* on 01.10.07., *"Material Testing"* organized by Govt. Polytechnic Ranchi on 28.11.07-1.12.07., *"Machining of flat surfaces"* organized by Govt. Polytechnic Ranchi on 29.5.07-2.6.07.

Awards/Nominations of faculty by Important Organizations

Invited talk

- Kumar, K., Mukherjee, S. K., and Pohit, G. applied for patent on Virtual Manufacturing of transmission elements, to Indian Patent office at Kolkata [1518/Kol/07 dt.2.11.07]
- Kumar, K., Mukherjee, S. K., and Pohit, G., applied for patent on Virtual Manufacturing of transmission elements, to Commissioner for patents, Alexandria, USA, 12/000, 061,dt. 7.12.07]
- Kumar, K., Mukherjee, S. K., and Pohit, G. applied for patent on Virtual Manufacturing of transmission elements in particular Gears, to Indian Patent office at Kolkata [2387/08 Kol dt.]

Department of Production Engineering

Department of Production Engineering since its inception in 1964 has been trying to impart quality education to under graduates and train them to meet the demands of the manufacturing industry. The Department has established links with the industry, R & D organization, consultancy organizations and academic institutes of the near by area in furtherance of the cause of manufacturing engineering.



The Department also aims at assisting manufacturing industry. An increasing number of university-industry collaborations are shaping through sandwich training programmes, short term courses, and workshops, collaboration and support from industry for both laboratory as well as industry based studies. Some important research achievements of the department are in the field of forming Technology for New Materials, Manufacturing Automation & Robotics for specific Tasks and work Space Design Considering Ergonomic Parameters.

Addition of equipment : 5-axis VMC-800 Machining Center

Addition of technical staff : 1

Relieving of faculty member : 1

Additional research projects : FIST-II

Additional Ph.D. registration

Sri J. Ghose, Investigation of multifunctional behaviour of metallic foams.

Number of students enrolled semester-wise

UG

Vth: 01	VIth: 32	VIIth: 02	VIIIth: 18
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PG

Ist: 01	IIInd : 03
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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)	1.04.07	(32+20) lakhs	5	31.03.2012
Dr. S.Kumar	Deformation and Fracturing Behaviour of Metallic Foams	AICTE (NCP)	2006	20 lakhs	3	2009

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

Name of Programme	No. of Delegates	Name of dignitaries	Resource persons involved	Duration
All India Seminar on Eco-Friendly Manufacturing, The Institution of Engineers (I), Ranchi, Jharkhand, held at the Department of Production Engineering, BIT Mesra, Ranchi	50		07	22 nd & 23 rd September 2007.
National Workshop on Cleaner Production for Sustainable Development: Status, Challenges, Opportunities & Vision, The Indian Institution of Production Engineers (I) & TEQIP, Ranchi, Jharkhand and BIT Sindri held at the Department of Production Engineering, BIT Mesra, Ranchi 8 th & 9 th December 2007.	70		06	8 th & 9 th December 2007.
One-Day Workshop on Personal & Inter-Personal Effectiveness for Time Management, held at the I.E. (I), Jharkhand State Center, Ranchi organized in association with the Department of Production Engineering, BIT Mesra, Ranchi	25		05	2 nd November 2007.
Two-Days Workshop on Precision Forming, held at the Department of Production Engineering, BIT Mesra, Ranchi				15 th & 16 th February 2008.

Publications**Journals**

1. Singh, R.K., Tiwari, M. K., and Khilwani, N. "Justification for the Selection of Reconfigurable Manufacturing System: A Fuzzy Analytical Hierarchy Based Approach", International Journal of Production Research, 45(4), 3165-3190, 2007.
2. Singh, R.K., Choudhury, A.K., Tiwari, M.K. "Improved Decision Neural Network (IDNN) based consensus method to solve a multi-objective group decision making problem, Advanced Engineering Informatics", 2007, 21, 335-348.

3. Pandey, V., and Kumar, S. "Feature Recognition from Axis-symmetric Rotational Parts: A Syntactic Approach, *The International Journal of Applied Management and Technology*", Vol. 5, No., 2, pp. 113-135, A refereed journal published by the School of Management, Walden University, 2007.
4. Jha, S.K., Singh, S., and Kumar, S. "Investigations into Heterogeneous Deformation of Sintered Preforms due to Die-Workpiece Interfacial Friction, *Indian Journal of Tribology*", Tribology Society of India, 2 (3), pp: 1-6, 2008.
5. Singh, S., Jha, A. K., and Kumar, S. "Upper Bound Analysis and Experimental Investigations of Dynamic Effects during Sinter-Forging of Irregular Polygonal Preforms", *Journal of Materials Processing Technology*, Elsevier, 194, pp: 134-144, 2007.
6. Singh, S., Jha, A.K., and Kumar, S. "High-Speed Sinter-Forging of Annular Ring Component", *Tamkang Journal of Science and Engineering: An International Journal*, Tamkang University Press, 10 (1), pp: 1-12, 2007.
7. Singh, S., Jha, A.K., and Kumar, S. "Dynamic Effects during Sinter-Forging of Axi-Symmetric Hollow Disc Preforms", *International Journal of Machine Tools and Manufacture*", Elsevier, 47, pp: 1101-1113, 2007.
8. Singh, S. "Upper Bound Analysis of Flashless Closed-Die Sinter-Forging of Cylindrical Preform into Double-Hub-Flange Component", *Manufacturing Technology and Research: An International Journal*, BIT Mesra Press, Vol. 3 (1 & 2), pp: 68-78, 2007.

Proceedings

1. Sharma, V. "Failure mode and effects analysis of electronics stand by display system of modern aircraft" International Conference on quality management practices for organizational excellence, 16-17 august, Mumbai.
2. Lal, S.P., Kaur, G. and Singh, S. "Forest Eco-Tourism: An Emerging Industry for Fast Track Economy Growth", Proceedings of International Conference on Spectrum of Hospitality and Tourism Industry in the Global Scenario, Department of Hotel Management and Catering Technology, BIT Mesra, Ranchi, Jharkhand, pp. 1-6, 15th January 2008.
3. Singh, S., Lal, S.P., and Kumar, S. "Cleaner Technologies & Strategies for Sustainable Development: Present Scenario & Future Directions (With Reference to Indian SMEs)", Proceedings of the National Workshop on Cleaner Production for Sustainable Development: Status, Challenges, Opportunities and Vision, BIT Mesra, Ranchi, Jharkhand, pp. 1-39, 8th & 9th December 2007.
4. Kumar, K., Singh, N.K., Dubey A., and Lal, S.P. "LD Slag Utilisation: A Case Study of Cleaner Technology," Proceedings of the National Workshop on Cleaner Production for Sustainable Development: Status, Challenges, Opportunities and Vision, BIT Mesra, Ranchi, Jharkhand, pp. 134-146, 8th & 9th December 2007.
5. Dubey, A.M., Ghose, J., and Lal, S.P. "A Systematic Approach to the Control of Industrial Water Pollution", Proceedings of the National Workshop on Cleaner Production for Sustainable Development: Status, Challenges, Opportunities and Vision, BIT Mesra, Ranchi, Jharkhand, pp. 108-111, 8th & 9th December 2007
6. Singh, S., Lal, S.P., and Kumar, S. "Product Takeback: A Successful Solution to Environmental-Conscious Manufacturing", Proceedings of the All India Seminar on Eco-Friendly Manufacturing, The Institution of Engineers (I), Ranchi, Jharkhand, pp. 62-69, 22nd & 23rd September 2007.

7. Ghose, J., Singh,S., Lal, S.P., and Kumar,S. *"Product Remanufacturing for Eco-Friendliness"*, Proceedings of the All India Seminar on Eco-Friendly Manufacturing, The Institution of Engineers (I), Ranchi, Jharkhand, pp. 99-104. 22nd & 23rd September 2007.
8. Singh,S., Lal, S.P., and Kumar,S. *"Institute-Industry Interaction for Competitiveness"*, Proceedings of the National Workshop on Industry Institute Interaction (NWII), BIT Sindri, Dhanbad & SPFU, Ranchi, Jharkhand, pp. 1-31, 13th & 14th July, 2007.
9. Singh,S., Kaur G., and Kumar,S. *"Sustainable Development and Cybernetic Control Model of Indian Coastal Tourism"*, Proceedings of International Conference on Spectrum of Hospitality and Tourism Industry in the Global Scenario, Department of Hotel Management and Catering Technology, BIT Mesra, Ranchi, Jharkhand, , pp. 1-6. 15th January 2008.
10. Kumar, S., Singh S., and Ghose, J. *"A Life Cycle Assessment of Machining and Sand Casting"*, Proceedings of the National Workshop on Cleaner Production for Sustainable Development: Status, Challenges, Opportunities and Vision, BIT Mesra, Ranchi, Jharkhand, pp. 52-59, 8th & 9th December 2007.
11. Sharma, A. K., Mishra, P.D., Sarkhel, K.P., and Singh, S. *"Fly Ash Utilization: A Case Study Of Sustainable Alternative to Incineration (Thrust Areas and Emerging Trends In India)"*, Proceedings of the National Workshop on Cleaner Production for Sustainable Development: Status, Challenges, Opportunities and Vision, BIT Mesra, Ranchi, Jharkhand, pp. 154-164, 8th & 9th December 2007.
12. S. Singh, *"Upset-Forging of Sintered Aluminium Truncated Conical Preforms"*, Proceedings of the 10th Asian Symposium on Precision Forging (ASPF), National Physical Laboratory, New Delhi, 5th - 7th November, 2007.
13. Singh, S. *"Rotary Forging of Sintered Axi-Symmetric Disc Preforms"*, Proceedings of the National Conference on Advances in Materials and Manufacturing Technology (AMMT-2007), Punjab Engineering College, Chandigarh, 21st & 22nd September 2007.
14. Agarwal, R. *"Green Supply Chain Management: A Strategic Analysis Tool, In Context to Indian Automobile Industry"*, National Seminar on Eco-Friendly Manufacturing , Organised by Institution Of Engineers (India), Jharkhand State Chapter, in collaboration with Department of Production Engineering. , Birla Institute of Technology, Mesra, Ranchi, 22nd-23rd September 2007.
15. Ghose, J., Singh S., and Kumar, S. *"Environmentally-Benign Manufacturing Case Study of Machining and Sand Casting Processes"*, Proceedings of the All India Seminar on Eco-Friendly Manufacturing, The Institution of Engineers (I), Ranchi, Jharkhand, pp. 19-28, 22nd & 23rd September 2007.

Books

1. ***Fundamentals of Design and Manufacturing, Dr. S. Kumar, Published by Institution of Engineers (I).***

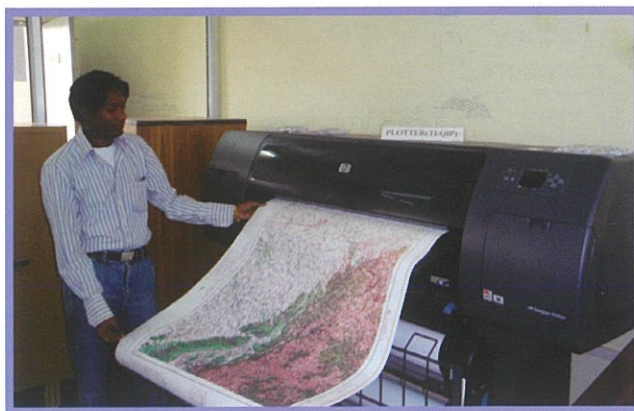
Seminar/Conferences/Short Term course attended by the faculty members

Name of Faculty members	Name of the programme	Organizers	Place	Duration of the programme
Dr. L.N. Pattanaik, Sri J. Ghose	Electron Microscopy	NIFFT, Ranchi	Ranchi	2-5, April 2007
Sri Vijay Pandey	Training on UG NX CAD CAM	TCS, Kolkata	Kolkata	4-6 June 2007
Sri S.P. Lal Dr. S.Singh	National Workshop on Cleaner Production for Sustainable Development: Status, Challenges, Opportunities & Vision	The Indian Institution of Production Engineers (I) & TEQIP, Ranchi, Jharkhand and BIT Sindri, Department of Production Engineering, BIT Mesra, Ranchi	Ranchi	8 th & 9 th December 2007.
Sri S.P. Lal Dr. S. Singh	All India Seminar on Eco-Friendly Manufacturing	The Institution of Engineers (I), Ranchi, Jharkhand, Department of Production Engineering, BIT Mesra, Ranchi	Ranchi	22 nd & 23 rd September 2007.
Sri S.P. Lal Dr. S. Singh	National Workshop on Industry Institute Interaction, Jharkhand,	BIT Sindri, Dhanbad, SPFU & TEQIP	Sindri	13 th & 14 th July, 2007.
Dr. S. Singh	One-Day Workshop on Personal & Inter-Personal Effectiveness for Time Management,	The I.E. (I), Jharkhand State Center, Ranchi in association with Department of Production Engineering, BIT Mesra, Ranchi	Ranchi	2 nd November 2007.
Dr. S. Singh	Nano-Metrology, an International Workshop	National Physical Laboratory & Metrology Society of India, New Delhi	New Delhi	17 th - 19 th October, 2007.

The Department is publishing quarterly Journal "Manufacturing Technology and Research: an International Journal", ISSN NO: 0973-0281 regularly.

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 resource 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.

Courses Offered

PG Courses: M.Tech Remote Sensing, M.Sc. Geoinformatics, Ph.D

Faculty Position

Designation	Professor	Reader	Lecture- Selection Grade	Senior Lecturer	Lecturer	Associate Lecturer
Number in Position	2	3	Nil	1	3	1

Number of Students enrolled with Department

Semester	No. of Students
M. Tech. IIInd Sem	05
M. Tech. IVth Sem	14
M.Sc. IIInd Sem	04
M. Sc. IVth Sem	06
Ph.D.	15
TOTAL	44

Ongoing Projects

Sl. No.	Research Project Topic	P.I./Co-P.I.	Funding Agency	Amount Sanctioned (Rs. in lacs)
1.	Glacial Retreat and Mass Balance studies in Zaskar Valley, J&K Himalayas.	Dr. M.S. Nathawat, Dr. A.C.Pandey	SAC Ahmedabad	27.00
2.	National Wasteland Mapping	Dr. M.S. Nathawat	NRSA Hyderabad	06.12
3.	Land & Water Audit in Jharkhand State using Geoinformatics	Dr. M.S. Nathawat Dr.A.C.Pandey	SAP UGC	36.00
4.	FIST Project	Dr. M.S. Nathawat, Dr. A.P. Krishna	DST, Gol	38
5.	Demarcation of younger arsenic affected alluvium along Ganga river in parts of Bihar	Dr. M.S. Nathawat, Dr. A.C.Pandey Mr.V.S.Rathore	CGWB Patna	Collaborative Project
6.	Geo-Informatics based water resource management plan for Ghad sub-watershed, Maharashtra	Dr. R. Sivakumar	DST, Gol	10.02

Seminar/ Conference/ Workshop etc conducted

Organized DST Gol sponsored One Week, Short Term Training Programme on "Natural Hazards Management in Integrated Regional Planning: Geoinformatics Approach" in the department of Remote Sensing during 19-24 Nov. 2007. Coordinator Dr.M.S.Nathawat, Co-Coordinator Dr.A.C.Pandey

The Department also 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 transmitted by IIRS Dehradun.

Publications in Journals

International

1. Nathawat, M.S., Rathore, V.S., and Champatiray, P.K. *"Influence of neotectonic activity on ground water salinity and play a development in Mendha river catchment"*, western India. International Journal of Remote Sensing (In press) 2008.
2. Jade, S., Mukul,M., Bhattacharya, A. K., M. S. M. Vijayan., Jaganathan, S., Kumar, A., Tiwari, R., P., Kumar, A., Kalita,S., Sahu,S. C., Krishna,A. P., Gupta,S. S., Murthy, M. V. R. L., and Gaur, V. K. (2007). *"Estimates of interseismic deformation in Northeast India from GPS measurements"*, Earth and Planetary Science Letters, Elsevier B.V. vol. 263, pp. 221-234; doi: 10.1016/j.epsl. 2007.08.031 online 14 September 2007.
3. Kirti, A., and Nathawat, M.S. (2008). *"A Geoinformatic Approach to Urban Wetland Change & Vulnerability in Analysis"*. Eco Chronical –A Quarterly International Journal on Environment & Ecology

National

1. Nathawat, M.S., Rathore, V.S., and Sinha, A.K. *"A Geoinformatic approach for water resource development in hydrologic ally disturbed coal mining area"*. The Eastern Geographer, 13 (1), 38-41. 2007.
2. Sailaja, B, Rao, S. P., Nathawat, M.S. and Rao, N.H. 2008b. *"Combination of image analysis techniques for rice area estimation"*. Journal of Environment and Ecology, 26(1):121-125. (In Press).

Seminars/Symposiums/ Short Term Courses Attended by Faculty members

International

1. Krishna, A .P. and Mitra, S. K. *"Geoinformatics based Environmental Quality Assessment of Physical Parameters of Urbanization: Case Study of Ranchi City, India"*. Proc. 6th International Conference on Geographical Information Technology and Application: MAP ASIA 2007 in Technical Session on Urban & Town Planning/MA 07 PN 148, August 14 to 16 2007, Kualalumpur, MALAYSIA, (2007).
2. Kirti, A., Nathawat, M.S., Pathak, G. 2008. *"Landscape Ecological mapping: A tool towards green productivity."* 7th International Ecocity World Summit 2008.San Francisco.USA.22nd – 26th April 2008.
3. Nathawat, M.S., Pandey, A.C., Rai, and P.K. Bahuguna. *"Spatio-Temporal Dynamics of Glaciers in Doda Valley, Zaskar Range, Jammu & Kashmir, India"* at International Workshop on snow, Ice, Glacier and Avalanches IIT Mumbai pp 256-264 , Jan 2008.
4. Nathawat,M.S., Mili Ghosh Nee Lala & Sisodia, G.S. *"Spatial Decision Support System for Need Assessment of Educational Facilities in Tribble Dominated Distrc"* in Proceedings of 7th International Workshop on Geographical Information System (IWGIS'07) 14-15 September, Beijing, P.R.China, pp 546-556,(2007)

National

1. Nathawat, M.S., Pandey, A.C., Arya, A. S., Ramakrishnan, S.S., Ramshoo, S., Dhinea, P.S., and Ajai. *"Mapping of Indicators of Desertification Using Satellite Based SAR Data: A case study"*. At Joint Experiment Project Towards Microwave Remote Sensing Data Utilisation, Space Application Centre ISRO Ahmedabad pp 7-66 7-84, May 2007.
2. Mohan, L., Dhawan, S. C., and Krishna, A. P. (2008). *"Web Based Tourism Information System Using Geographical Information System (GIS) – A Case Study"*. Proc. International Conference on Spectrum of Hospitality and Tourism Industry in the Global Scenario, BIT Mesra, Ranchi, Jharkhand, 15 January 2008,
3. Shivakumar, R., 2008, attended an International Conference on *"Spectrum of Hospitality and Tourism Industry in the Global Scenario"*– at BIT, Mesra (Jan. 2008).
4. Shivakumar, R. 2008, *"Integrated hydro geological studies for optimum water resources planning – A case study on Gad basin, Maharashtra"*, Presented in the National Seminar on 'Hyper spectra 2008' at Annamalai University 14-15 Feb. 2008.
5. Richa, Sharma, N.K. Attended an International Conference on *"Spectrum of Hospitality and Tourism Industry in the Global Scenario"*– at BIT, Mesra, (Jan. 2008).
6. Bhatnagar R, and Mishra, A. K. *"Integration and Query Processing on Spatial Databases – A Review."* in the proceedings of the National Conference on Computing for Nation Development – INDIA Com – 2007 organized by Bharati Vidyapeeth's Institute of Computer Applications and Management (BVI CAM), New Delhi PP. 521-524. on 23-24 February 2007,
7. Arvind, A., Patel N., and Panda, R. K. *"Assessment of Ecological Vulnerability Through Remote Sensing and GIS: A Case Study in Ranchi Area"*, DBT (Department of Biotechnology) sponsored International Symposium on Recent Advances in Contemporary Biology, Environmental Issues and Sustainable Development, SKM University, 29-30 September, 2007.
8. Pal, S., Patel, N., and Panda, R. K. *"Ecological Impact Assessment of Major Wetlands of Ranchi Area Through Remote Sensing and GIS"*, DBT (Department of Biotechnology) sponsored International Symposium on Recent Advances in Contemporary Biology, Environmental Issues and Sustainable Development, SKM University, 29-30 September, 2007.
9. Mahto, L. L., and Patel, N., *"Assessment of Biomass and Carbon Stock in Present Landuse: A Remote Sensing and GIS Approach"* (only Abstract submitted), DBT (Department of Biotechnology) sponsored International Symposium on Recent Advances in Contemporary Biology, Environmental Issues and Sustainable Development, SKM University, 29-30 September, 2007.

Award/ Citation bestowed on faculty members and students

1. Nathawat, M.S. Nominated as member EC, Department of Forest & Environment, Govt. of India.
2. Patel, N. Invited as Visiting Professor, at Aalborg University Denmark
3. Nathawat, M.S. Invited as Visiting Professor, at Panjab University Chandigarh.

Best Paper Award: Our student Mr. Anoop Arvind (MT/RS/1006/06) got Young Scientist Award 2007 for presenting his research paper "Assessment of Ecological Vulnerability Through Remote Sensing and GIS: A Case Study in Ranchi Area" in International Society for Ecological Communications, held at Dumka (JHARKHAND) in September 2007

Infrastructure facilities added during the year 2007-08

Map Production & Reprographic Lab was established in the Department.

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 over eight Grants-in-aid On-going Projects in these areas.



General Information

Addition of Equipments

Sl. No	Name of Equipment	Qty.	Date of Purchase	Cost (in Rs)	Project / Lab. Expenses
1.	Data Acquisition System	1 No.	8. 5. 2007	2,40,000.00	Defence Project
2.	Digital Single Lens Reflex Camera	1 No.	8. 5. 2007	64,990.00	DRDL Project
3.	Pressure Transducer and Electro-Pneumatic Valve, 0 - 50 Kg.	1 No.	8. 5. 2007	1,31,000.00	Defence Project
4.	10 KVA UPS System, Battery, Rack	1 Set	7. 9. 2007	1,45,000.00	Rocket Lab Exp.

Addition of Faculty Members

Shri Priyank Kumar joined the Department as Lecturer w.e.f. 3.12.2007.

Relieving of Faculty Members

Miss Nivedita Gupta, Lecturer was relieved on 17.8.2007.

Shri Subrata Kumar Ghosh, Lecturer was relieved on 30.3.2008.

Addition of Technical Staff

Shri Ashok Kumar joined the Department as Trainee Asst. w.e.f. 3.12.2007.

Relieving of Technical Staff

Shri Dinesh Singh, Jr. Assistant was relieved w.e.f. 01.03.2008.

Additional Academic Programmes : None**Additional Research Project**

Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanctioned Amount (Rs. in lac)	Duration of Project
Development of Cryo - Hybrid Rocket Propulsion	Dr. A. K. Chatterjee Dr. P. C. Joshi	UGC (SAP- II)	Apr 2007	49.00	5 years

Awards / Citation

1. Chatterjee, A. K. has been nominated as Vice President of The Institution of Engineers (India) for the Session 2007-2008.
2. Chatterjee, A. K. Was invited to present the Key Note Address on Convergence of Technologies for Rapid Development of India, Seminar on Engineers' Day, The Institution of Engineers (India), Angul, Sept 15, 2007.
3. Varma, M. was invited to deliver Lecture on Advances in Gel Propulsion Technology: New Challenges at Research Centre of High Energy Systems at Tomsk State University, Russia on July 31, 2007.
4. Varma, M. has been elected as member on the National Executive Council of High Energy Materials Society of India, 2007-2009.
5. Prasad, J. K. has been elected Member, Executive Committee, National Society of Fluid Mechanics and Fluid Power, 2008-2010.
6. Dash, P. K. has been nominated as Project Technical Committee Member, Ship Structural Committee, and USA.

No. of Students enrolled

M. E. in Space Engineering & Rocketry : 08 (2006-07) + 04 (2007-08)

M. Tech. in Fuels and Combustion : 03 (2006-07) + 01 (2007-08)

Ongoing Project

Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanctioned Amount (Rs. in lac)	Duration of Project
Experimental Investigation of Flow Field around Slender Body at High Angles of Attack	Dr. J. K. Prasad Shri Sudip Das	AR&DB Min. of Defence	Sept 2004	7.22	4 years
Investigation of Flow Field Interaction around Protrusions at Supersonic Speeds	Dr. J. K. Prasad Shri Sudip Das	RESPOND (ISRO) Dep- tof Space	Oct 2004	9.58	3 years

Propellant Technology and Combustion Facility	Dr. A. K. Chatterjee Dr. Mohan Varma	DST (FIST)	Jan 2005	25.00	5 years
Experimental Investigation of Flow Field around Protrusions at Supersonic Speeds	Dr. J. K. Prasad	AR&DB Min. of Defence	Feb 2005	9.58	4 years
Development of Gel Propulsion System for Reaction Control System using UDMH & RFNA	Dr. Mohan Varma	DRDL Min. of Defence	Nov 2005	23.00	2.5 yrs
Internal Ballistic Studies of Hybrid Propulsion System	Dr. A. K. Chatterjee Dr. P. C. Joshi Dr. Mohan Varma Shri. S. K. Ghosh	Institute	Dec 2006		
Aerodynamic Characterisation of Space Re-entry Capsule	Dr. J. K. Prasad Dr. P. K. Dash Shri Sudip Das	Institute	Dec 2006		
Measurement of Unsteady Pressure in the Region of Body – Fence Junction at Supersonic Speed	Dr. J. K. Prasad	DRDL Min. of Defence	Mar 2007	7.18	1 years
Development of Cryo - Hybrid Rocket Propulsion	Dr. A. K. Chatterjee Dr. P. C. Joshi	UGC (SAP - II)	Apr 2007	49.00	5 years

Project Completed

Project Title	Principal Investigator	Funding Agency	Date of Sanction	Sanctioned Amount (Rs. in lac)	Duration of Project
Investigation of Flow Field Around Fore Body with Vertical Fences at Supersonic Speeds	Dr. J. K. Prasad	DRDL Min. of Defence	July 2005	09. 50	2 Years
Development of Cryogenic Propulsion System	Dr. A. K. Chatterjee	UGC (SAP)	Apr. 2002	49.00	5 years

Seminar / Conference / Short Term Course organised

34th National Conference on Fluid Mechanics and Fluid Power, B.I.T., Mesra, Dec 10 – 12, 2007.

Convenor : Dr. A. K. Chatterjee

Organising Secretary : Dr. J. K. Prasad

No. of delegates : 150

Names of Dignitaries : Prof. Dr. Ing. Olaf Wunsch, Univ. of Kassel, Germany

- : Dr. Rakesh Mishra, Univ. of Huddersfield, UK
- : Prof. V. Seshadri, IIT Delhi
- : Prof. Kannan Iyer, IIT Bombay,
- : Prof. K. Murlidhar, IIT Kanpur
- : Dr. S. C. Purohit, CDAC, Pune
- : Shri S.G.Joshi, Tech. Advisor, Kirloskar Brothers, Pune

National Workshop on Ensuring Quality Technical Education in Eleventh Five Year Plan, B. I. T., Mesra, March 25 -26, 2008. (Deferred at the last moment.)

- Organising Secretary : Dr. A. K. Chatterjee
- Joint Secretary : Shri Priyank Kumar

Publication by Faculty in Journals

1. Omprakash, P., Roy, Arnab, Das, Sudip and Prasad, J. K. *"Investigation of Incompressible Flow past a Two-Dimensional Wedge"*. Journal of Aerospace Sciences and Technologies, Vol. 59 (4), 229-245, 2007.

Proceedings

International

1. Varma, M., and Pein, R. *"Optimization of Processing Conditions for Gel Propellant Production, 7th International Symposium on Special Topics in Chemical Propulsion"*, Kyoto International Centre, Kyoto, Japan, Sept 17-21, 2007.
2. Das, S., and Prasad, J. K. *"Flow Field Simulations around a Reentry Capsule at Hypersonic and Supersonic Speeds"*, 7th ACFD Conference, Bangalore, Nov 26-30, 2007.
3. Varma, M., and Joshi, V. C. *"Rheological Investigation on Gelled UDMH Fuel, High Energy Materials Conference & Exhibit"*, Tagore Engineering College, Chennai, Dec 13-15, 2007.

National

1. Nath, B., Das, S., and Prasad, J. K. *"Investigation of Flow Field over Blunted Delta Wing"*, Symposium on Applied Aerodynamics and Design of Aerospace Vehicle (SAROD-2007), Thiruvananthapuram, Nov 22 -23, 2007.
2. Kumar, P., Roy, A., Das, S., and Prasad, J. K. *"Experimental Investigation of Flow Field around Blunt Fins at Supersonic Speed"*, 34th National Conference on Fluid Mechanics and Fluid Power, BIT Mesra, Ranchi, Dec 10-12, 2007.
3. Das, S., and Prasad, J. K. *"Starting Characteristics of a Mixed Compression Supersonic Air-Intake"*, 34th National Conference on Fluid Mechanics and Fluid Power, BIT Mesra, Ranchi, Dec 10 -12, 2007.
4. Yousuf, A. D., Das, S., and Prasad, J. K. *"Flow Field Studies on a Rectangular Air-Intake at Supersonic Speed"*, 34th National Conference on Fluid Mechanics and Fluid Power, BIT Mesra, Ranchi, Dec 10 -12, 2007.
5. Sateesh Kumar R., Roy, A., Das, S. and Prasad, J. K. *"Ground effects on the Flow Field over a Typical Reusable Launch Vehicle"*, 22nd National Conference of Aerospace Engineers, IIT Kanpur, Nov 16 -17, 2007.

6. Das, S., and Dash, P. K. "Computational Simulation of Combustion Instability in SRM by Vortex Shedding Method", Proceeding of 34th National Conference on Fluid Mechanics and Fluid Power, BIT Mesra, Ranchi, pp. 182-194. Dec 10-12, 2007.

Books

1. Fluid Mechanics and Fluid Power : Ed. J. K. Prasad, Sudip Das and A. K. Chatterjee

Patents

- | | | |
|---------------------|---|------|
| a.) Applied | : | None |
| b.) Patent Obtained | : | None |

Seminar / Conference / Short Term Course attended by faculty members

1. Chatterjee, A. K. attended 22nd Indian Engineering Congress and Seminar on "Globalisation: Engineering and Technological Challenges", Udaipur, Dec 13-16, 2007.
2. Chatterjee, A. K. attended 21st National Convention of Aerospace Engineers and National Seminar on "Infrastructure Development and Augmentation for Ground and Flight Testing of Aerospace Vehicle and Aircraft Series", IIT Kanpur, Nov16-17, 2007.
3. Chatterjee, A. K. attended 37th ISTE National Annual Convention and National Seminar on "Excellence in Technical Education Strength Innovation", Manipal Institute of Technology, Manipal, Dec 17-19, 2007.
4. Varma, M. attended 7th International Symposium on "Special Topics in Chemical Propulsion", Kyaoto, Japan, Sept 17-21, 2007.
5. Varma, M. attended "VIth International High Energy Materials Conference & Exhibit", held at Tagore Engineering College, Chennai, Dec 13 -15, 2007.
6. Varma M. attended 34th National Conference on "Fluid Mechanics and Fluid Power", BIT Mesra, Ranchi, Dec 10 -12, 2007.
7. Prasad, J. K. attended Symposium on "Applied Aerodynamics and Design of Aerospace Vehicle (SAROD)", Trivandrum, Nov 22 -23, 2007.
8. Prasad, J. K. attended 34th National Conference on Fluid Mechanics and Fluid Power, BIT Mesra, Ranchi, Dec 10 -12, 2007.
9. Dash, P. K. attended 34th National Conference on "Fluid Mechanics and Fluid Power", BIT Mesra, Ranchi, Dec 10-12, 2007.
10. Das, S. S. attended 34th National Conference on "Fluid Mechanics and Fluid Power", BIT Mesra, Ranchi, Dec 10 -12, 2007.
11. Ghosh, S. K. attended 34th National Conference on "Fluid Mechanics and Fluid Power", BIT Mesra, Ranchi, Dec 10 -12, 2007.
12. Dash, P. K. attended Regional Seminar on "Intellectual Property and Innovation Management in Knowledge Era", Central Tasar Research & Training Institute, Ranchi, on Feb 7-8, 2008.

Department of Physical Education & Sports

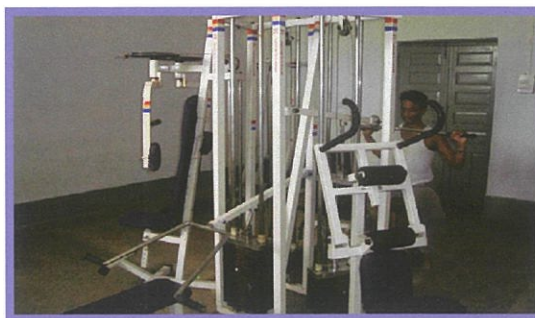
EXTRAMURAL TOURNAMENT

1. E.Z.I.U. Basketball Tournament was organized by B.I.T. Mesra, Ranchi from 1/11/2007 till 6/11/2007. (19 Team)
2. This year the Chetan Deo Raj Memorial Cricket tournament organized in B.I.T. Mesra from 25/01/2008 till 29/01/2008 and was won by the team players of B.I.T. Mesra.
3. Our Institute football team participated in football tournament organized by I.S.M. Dhanbad and won the first position.
4. The Institute Athletic team had a marvellous victory in All Indian Inter technical Athletic meet from 15/02/2008 to 17/02/2008 and held the 2nd position including four gold medals.



INTRAMURAL TOURNAMENTS

1. Body building competition was organized on 10th October 2008. Mr. Dhananjay Choube won the title of Mr. B.I.T., 2008.
2. Institute Athletic meet was organized from 1st Feb. to 3rd Feb. 2008. Mukul Jha Ekka declared Individual Champion in Men and Amrita Ekka declared Individual Champion in Men and Amrita Ekka declared in women section.
3. Inter Hostel Volley ball tournament final match was organized on 17/04/2008; Hostel no. 5 A & B won the above tournament.
4. Hockey tournament was organized from 28/03/2008 to 10/04/2008. Hostel no. 5A & B won the championship against Hostel no. - 6.
5. Indoor Games prize distributing ceremony of Badminton & T.T. was distributed on 19/04/2008. Hostel no. 5A won in both events.
6. Inter Hostel Football tournament final was won by 5B football team.
7. Inter Hostel Tennis & Basketball tournament was organized by our department. In the final match Col. A.K.Singh (CO) distributed the prizes to girls & boys winning & losing teams.
8. Mr. Mahendra Kumar attended and presented paper on "Basic on Maturation & self confidence in sports in sports medicine", conference organized by Apollo, Ranchi from 22nd Nov. to 26th Nov. 2008.

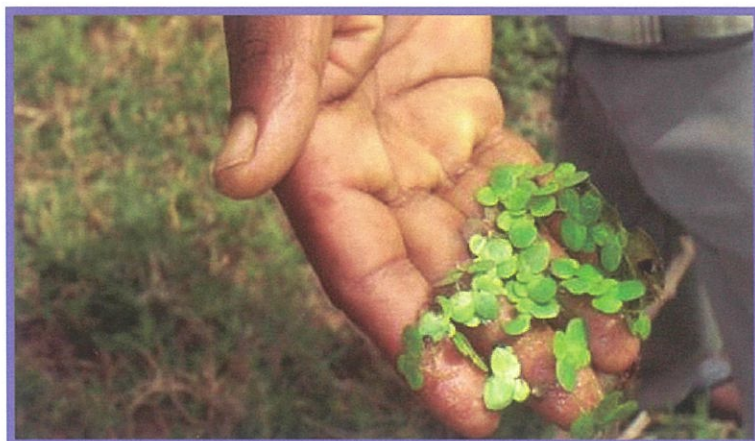


Infrastructural Development

- Institute Cricket pavilion was developed 130 meter in oval shape with sitting capacity of 1000 persons.

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 the 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 is also proposing to start a **M-Tech Course on Sustainable Development Engineering**.

Degree/Diploma offered

M-Tech Degree: Environmental Science & Engineering

M-Tech-ESE (IVth Semester): 9

M-Tech ESE- IIInd Semester: 4

Ongoing Project

1. Birla Institute of Technology has been identified as the **State Referral Institute** by the **Drinking water & Sanitation Department, Govt. of Jharkhand**. In this regard to ESEG is involved in water Quality Monitoring & Surveillance and upgradation of the districts laboratories.

Funding Agency : Drinking water & Sanitation Department, Govt. of Jharkhand.

Amount: Rs.1.20 lacs quarterly.

Project completed during the year 2007-2008.

1. Title: "A comprehensive survey on the water quality mapping of Daltonganj, Vishrampur, Chainpur & Pandu of Palamu district and Bhawnathpur, Ranka, Bhandaria, Kharandhi, Nagar, Maghiav of Garhwa district with focus on fluoride".

Agency : UNICEF

Amount : Rs.10.48 lacs

Seminar/Conference/Short term course conducted by the Department.

1. Environmental Science & Engineering Group conducted a three days workshop on "Water Conservation and Quality" during 5-7th February 2008.
2. Environmental Science & Engineering Group will be conducting a two days National Symposium on "Green Computing" during 19th- 20th February 2008.

Publication

International Proceedings

1. Pathak, G. Presented a paper entitled, "*Arsenic Contamination of groundwater in some parts of Eastern India and its remedial measures*" in the 23rd International conference on Contaminated Soils, Sediments and water. The Conference was held at the University of Massachusetts, AMHERST, USA. The paper has been published in the proceeding of the International Conference during October 15-18th 2007.
2. Kirti, A., Pathak, G., and Nathawat, M.S. "*Landscape Ecological Mapping a Tool towards Green Productivity*" has been accepted for publication at the 7th Ecocity World Summit at San Fransisco during 22-26th April 2008.
3. Pathak, G., Kirti, A., & Gorai, A. K., "*Environmental and Societal Impacts of Coal Mining and Its Management Practices in India*", International Conference on Environmental and Societal Impact of Coal Mining, New Delhi ,Nov. 19-21, 2007.
4. Kirti, A., Pathak, G., Nathawat, M.S. "*Landcape Ecological Mapping a Tool Towards Green Productivity*" has been accepted for publication at the 7th Ecocity World Summit at San Fransisco during 22-26th April 2008.

extended to External Organizations, mainly Academic Institutions of the region on nominal chargeable basis. Present facilities include:

Electrochemical Analyzer,
Gel Permeation Chromatograph, Waters
Differential Scanning Calorimeter, TA
Particle Size, Zeta potential, cum Molecular Weight Analyzer, Malvern
Thermo-gravimetric Analyzer, Shimadzu
FTIR Spectrophotometer, Shimadzu
Chemiluminescence's Spectrophotometer, Shimadzu
Color Measurement System, Hunter Lab
Elemental Analyzer, CHNSO, Elementar
Pulse Analyzer, Oros
Porosity meter, Thermoelectron
Atomic Force Microscope, NT-MDT
Surface tensiometers- Plate and Ring and Drop, Dataphysics
ServoHydraulic Dynamic Tensile Testing machine, Instron

Instruments installed at Central Instrumentation Facility in this academic year are Scanning Electron Microscope, JEOL; Impedence Analyser, Novocontrol; and PCB Prototyping , LPKF, Germany, High temperature furnace 1600°C.

The facility was utilized for undergraduate laboratory courses for Applied Chemistry and post graduate students for Applied Physics and Polymer Engineering. The laboratory is extensively used for M.E, M.Tech, M.Pharm students for their project work. Presently, approximately 24 Doctoral research scholars are regularly working in this laboratory. In the present academic year, the Central Instrumentation Facility has carried out testing work for academic and research institutions like NIT, Rourkela, IIT Kharagpur, Ranchi University, Indian Institute of Natural Resins and Gums, Ranchi; Kanak Manajari Institute of Pharmaceutical Sciences, Rourkela. Services were provided also to the Industries like Asha Cellulose Pvt.Ltd., Mumbai.

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 existing CAD Laboratory in the Mechanical Engineering wing has been extended to a 60 user Laboratory, and facility augmented by Workstations, Computers and Servers. This Laboratory supports Department of Mechanical Engineering, Civil Engineering, Architecture, Applied Mechanics, Production Engineering, Polymer Engineering. This also houses the Molecular Modelling Laboratory used extensively by Department of Pharmaceutical Sciences, Applied Chemistry, Polymer Engineering, Applied Physics etc. The softwares procured under TEQIP in the year are : Autodesk : Civil and Mechanical Solution Sets 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 Accelrys software-MS Visualizer, MS Synthia, M S Blends, Amorphous Cell, Discovery, Compass, DPC, Mesodyn and CASTEP Chemoffice Ultra 2005. This academic year, MS CASTEP module was added to Accelrys Material Studio and Turbo G module was added to Fluent.

AUGMENTATION OF DEPARTMENTAL CAD FACILITIES:

The CAD facilities were augmented under TEQIP for the following Departments: Computer Science, Applied Chemistry, Electrical and Electronics Engineering, Electronics & Communication Engineering, Bio Technology, Polymer Engineering. In the academic year 2007-08, following new softwares were procured:

Department of Computer Science: 3D StudioMax 2008, Flash, SAAZ IT,

Electrical and Electronics Engineering: BWD New version Software

Department of Polymer Engineering: Software for RIGAKU MINIFLEX

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

Department of Remote Sensing : IRS P5 Stereo Orthokit

INFRASTRUCTURE DEVELOPMENT

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

- Construction of Central Instrumentation Facility.
- 10 Seminar Halls/Class rooms are equipped with Audiovisual aids
- Bose Acoustics System, Chairs for Golden Jubilee Auditorium
- Refurbishment of three Seminar Halls
- Refurbishment of various Laboratories: Cadence Laboratory, Central Instrumentation Facility etc.
- Air conditioning of CAD Laboratories and Central Instrumentation Facility.

AUGMENTATION OF LIBRARY FACILITY

e- journal facility augmented after procurement of Science Direct [Engineering, Chemical Engineering, Energy, Material Science, Computational science]

D Space, for digital archiving: Institutional Repositories, Learning object Repositories, e-Thesis, Electronic records Management, Digital preservation etc.

Web based OPAC: all the library information can be accessed through LAN.

Computers, Furniture, pass book printers, etc.

In the present year, Security System with electromagnetic tapes, and Scanning system for stock verification have been procured:

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:

- a. Tattle Tapes/Magnetic strips
- b. 3M security Detection Systems/Security gates
- c. Books Check Systems

Title tapes are pasted on the books, Journals, CDs etc. Every time the material is taken out and brought

back to the premises the tapes are sensitized and desensitized. The tapes are impossible to find and remove. This helps to ensure that no material leaves the library without being properly checked out.

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

The campus is fully interconnected including the office buildings, hostels and staff residence with high bandwidth Internet connectivity of 8 Mbps leased line. The staff residences are connected on broadband using internal telephone system. The campus backbone and distribution layers are on fiber using Extreme Black Diamond core switch. The access layers are on CAT 6 for gigabit connectivity to the end user. A part of access layers is on wireless. The network is fully protected using firewall (Cisco PIX), IDP (Juniper) and Identity-based unified threat management appliances (Cyberoam).

EDUSAT CELL

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, Mumbai.

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.

E-LEARNING CELL

An e-learning cell, had been constituted to coordinate preparation of content of e-lectures, in which all academic departments are involved. The aim is to facilitate our students, at main center and all extension centers, study the course material at their convenience. The e-lecture will be made available via Intranet of the campus. Most of the committee members have prepared e-lecture notes of two modules of their subjects with audio visual effects.

The Cell coordinates the activities of the Language Laboratory to help students learn English, French, German & Spanish languages through audio CD (with head-phone).

The Cell is also responsible in providing the Video-conferencing facility. The video-conferencing facility will primarily be used to conduct lectures simultaneously in all the Extension Centres - NOIDA, Bhimtaal, 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.

ACADEMIC REFORMS

Academic Reforms is an on-going process of BIT. On the basis of the recommendations of Academic Reform and Examination Reform committees, following reforms were implemented during the tenure of the Project: 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, including presentation, Students appraisal of the teachers at the end of the Semester, On line examination.

TRIBAL DEVELOPMENT PLAN

TEQIP is committed to support the existing schemes for SC/ST. Apart from ongoing activities like Remedial classes, Book bank, following activities have been taken up in this academic year:

- 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.
- Two Soft Skill Enhancement Programmes were conducted - One from 7th to 14th April'07 and another from 13th Dec to 19th Dec'07.
- 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.

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.

Activities during 2007- 08

PET cell has made effort in bringing awareness about various job opportunities for fresh graduates by posting several announcements advertised in the different national newspapers and journals.

In October 2007 the PET cell arranged a seminar lecture on how to apply for admission to the graduate programme and successfully get assistantship in US universities. Dr. Sunrit Mullick from USEFI, Kolkata was the main speaker in this seminar.

In February 2008 the PET Cell arranged another seminar talk by Mr. David Rao from British Council, Kolkata on how to apply and get scholarships for studying in British universities.

The cell also has set up a mechanism for advising and helping students who are looking for higher education in foreign universities. The cell has the registration facilities to keep track of the students going to foreign universities.

The cell is now in the process of negotiation with outside agencies for preparing the students for IES, GATE, GRE, GMAT, CAT, TOEFL and IELTS examinations.

Faculty and Staff Development

Staff training is an important component of TEQIP. Training need analysis was done for all the Faculty and Staff of the Institute as per NPIU guidance. Nearly 10,000 man-days of training have been supported by the project. A Training need analysis has been conducted to prepare the training plan for the extended Project Period. In the year 2007-2008, following trainings in India were supported by TEQIP :

Area of Training	No of Faculty/ Staff
Short-Term Training Programme on 'DSP KIT TMS320LF2407A & C6713' 31.03.07 to 02.04.07 Dept. of EEE, BIT Mesra, Ranchi	3
Course on Lean Management, 28.03.07 to 30.03.07, Govt Polytechnic, Dumka	2
Workshop on Refrigeration and Air conditioning 21.03.07 to 24.03.07 Organized by Government polytechnic Ranchi	8
Short term training programme on Application of Mat Lab & Toolboxes for real time solutions from 21.04.07 to 22.04.07 organized by Dept. of EEE, BIT Mesra, Ranchi (Faculty from IIT Kharagpur)	42
Workshop on Electron Microscopy from 02.04.07 to 05.04.07, NIFFT, Hatia Ranchi (Faculty from IIT Kanpur)	06
Intensive course on Soft Computing Techniques and Applications from 15.05.07 to 20.05.07, Indian Institute of Information Technology, Deoghat, Jhalwa, Allahbad	01
Training on "VLSI Design (CADENCE Tools)" on 21.05.07 to 25.05.07 organized by CADENCE, Bangalore	03
Research visit in Melbourne, Australia on "Grid Resource Management & Application Scheduling"	01
Short-term course on Wireless Communication & Networks on 14.05.07 to 19.05.07 organized by G.S Sanyal School Telecommunication, IIT Kharagpur	01
Short term Course on CMOS Digital IC Design on 07.05.07 to 18.05.07 organized by NIT, Rourkela	01
Short Term Training Programme on MS-Office Basic on 7.05.07 to 19.05.07 Organized by BIT Mesra, Ranchi.	44
Short Term Course on MS-Office Advance on 7.05.07 to 19.05.07 Organized by BIT Mesra, Ranchi	17
Training on Flash, Adobe Premier, Sound Fourge, PhotoShop, Powerpoint on 7.05.07 to 19.05.07 Organized by BIT Mesra, Ranchi	22
Short Term Course on DSP Tools & Practice on 04.06.07 to 09.06.07	01
Short Term Training programme on UGNX4 CAD CAM on 04.06.07 to 06.06.07	02
Short Term Course on CFD-Turbulent Flows & Modelling on 13.07.07 to 14.07.07	04
Technical Workshop on "Purchasing Management in Govt. PSUs Autonomous Bodies and other Govt. Institutions	01
Siemens UGS Connection INDIA' User's Conference 2007 on 18.08.07 Conference on ASSOCHAM (Global Summit on Nanotechnology) on 20.10.07 to 21.10.07	05
Orientation Course on Biomedical Technology & Development on 17.09.07 to 24.09.07	01
National Workshop on Power Electronics on 06.09.07 to 07.09.07	02
Polyflow Training on 4.10.07 to 5.10.07 at Fluent India Private Ltd., Pune	02

International Workshop on Nano - Metrology (IWON-2007) on 17.10.07 to 19.10.07 National Physical Laboratory & Metrology Society of India, New Delhi	02
Workshop on "Familiarization with Modern Equipments" on 01.10.07 Govt. Polytechnic Dumka	02
"Measurement Techniques in Fluid Mechanics" Lecture delivered by Mr. V.Kanagrajan NAL, Bangalore & Organized by BIT, Mesra on 01.10.07 to 06.10.07	13
Accelrys Training on Polymer on 19.11.07 to 20.11.07	17
Training on Material Testing on 28.11.07 to 01.12.07	01
SERC School on Polymer based composites and nano composites on 26th to 1st Dec'2007	01
Visit and Discussion at Research Laboratory on Tissue Engineering from 15.12.07 to 26.12.07 at Sri Chitra Tirunal Institute of Medical Sciences, Trivandrum	01
National Symposium on 'Emerging Trends in Mechatronics' from 27.12.07 to 28.12.07 National Institute of Technology, Kurukshetra	01
International Workshop on Thermal design & Management in Electronics from 7.01.08 to 8.01.08, Centre for Electromagnetics & IISC, Bangalore 02	
Short Term Training Programme on "Advanced Computing Techniques" from 07.01.08 to 18.01.08 by DJ Sanghvi College of Engineering, Mumbai	01
Industrial Training for Faculty in TISCO in the area of: Power Electronics and Drives from 31.12.07 to 7.01.08 by Tata Steel, Jamshedpur	03
Industrial Training for Faculty in TISCO in the area of: Instrumentation and Energy Management from 31.12.07 to 7.01.08 by Tata Steel, Jamshedpur	04
An In-house foundation Programme on "Understanding of Financial Accounting" from 21.01.08 to 25.01.08 by Dept. of Management, BIT, Mesra	07
Indo-German International Seminar on Plastic Processing on 14.02.08 to 15.02.08 Organization of Plastic Processors of India, Mumbai	01
Cadence University Training Programme on 11.02.08 to 15.02.08 organized by Cadence India Pvt.Ltd., Bangalore	03
Training Programme on Laboratory Safety on 18.02.08 to 20.02.08 organized by Indian Institute of Chemical Technology & Human Resources Development Centre, Hyderabad	01
Training Programme on Special Casting and Forming Process on 25.02.08 to 26.02.08 National Metallurgical Laboratory, Jamshedpur	02
National Workshop on Technological Challenges of 21st Century-"The Road Ahead" on 08.02.08 to 09.02.08 organized by Birsa Institute of Technology, Sindri, Dhanbad	04
Die and Mould India '2008 on 16.02.08 to 17.02.08 organized by Tool & Gadgets Manufacturer Association, Bangalore	02
Short term Training programme cum Workshop on Lab VIEW organized by BIT, Sindri from 07.03.08 to 08.03.08.	03

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

Mr. K. K. Patnaik Lecturer, Deptt of Computer Science, took Short term Research Visit regarding collaborative research on topic 'Grid Resource Management and Application Scheduling' at University of Melbourne, Australia, from 14th May to 19th June'07.

Dr. T. Ghose, Associate Professor, Department of EEE, visited University of Duisburg- Essen, Germany, from 24th June to 10th August 2007, for collaborative research on Development of Neuro Fuzzy Controller for Wind Turbine.

Mr. A. Mustafi, Sr. Lecturer, Department of Computer science, visited University New Brunswick, Canada, for a collaborative research program in Image Processing from the 8th of September to the 15th of October, 2007.

Dr. M. Mukherjee, Professor and Dr. Chandan Guria, Senior Lecturer, Department of Polymer Engineering visited United Technology Research Centre, Hartford, USA for R&D on "Direct Contact Membrane Distillation in collaboration" in June'07.

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.

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 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.

During the year 2007-08 tracer study cell has performed the following activities

1. Database has been created for more than 5000 alumni.
2. Communication has been sent to all year UG/PG students of all branches in Main Campus as well as in all Extension Centres requesting them to register their employment status after passing out from Institute.
3. The few ex-students in their sole rotation utilized the data.

4. Placement and Vocational training was arranged for present students through cell.
5. Guest Lecture was arranged under this cell.
6. A meeting was held on 8.12.07 with Alumni Association (BITOSA) for better functioning of the cell.

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: 25.00 lacs
- b) Staff Development funds: 5.00 lacs
- c) Maintenance funds: 15.00 lacs
- d) Depreciation funds: 10.00 lacs

INTEGRATED INSTITUTE INFORMATION CELL

The Information cell at Birla Institute of Technology, Mesra 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 offices of the administrative officials of the institute. This has been made possible through computerization of various academic and administrative activities of the institute.

Besides facilitating smooth 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.

In the year 2007-08 the members of the Information Cell were involved in developing the system, which fulfills the following information requirements of the various user groups in the institute:

- **Academic departments:** Courses being conducted, Batch strengths, syllabus, class routines, departmental notices, tutorial sheets and student assignments, student attendance, infrastructure etc.
- **BIT Employees:** Complete academic and personal Profile, publications, sponsored projects, conferences, QIPs attended, etc.(of both teaching and support staff).
- **Doctoral research:** Complete profile of registered students, details of guides, research progress, submission and completion details
- **Students:** Personal and Academic profile, registered papers in the current semester, outstanding Mess dues etc.
- **Quarter Allotment:** Details of existing quarters, current occupants, quarters needing repair, etc.
- **Guest House:** Provides an option for provisional booking and gives details about confirmation status, booking details etc.
- **Infrastructure:** Details of lab and its equipments, software and hardware details, number of classrooms of a department.

- Computerization of the processes like:
 - Student registration,
 - Student dues payment,
 - Global notices and departmental notices,
 - Booking of Guest House Accommodation,
 - Allotment of Staff Quarters
- Upload and download facility is available for –
 - Subject wise tutorials,
 - Subject wise lab assignments,
 - Global notices,
 - Reference paper facility for faculties
- Designing an Online Examination module for the Institute.

NETWORKING OF INSTITUTIONS FOR QUALITY ENHANCEMENT AND RESOURCE SHARING

Two types of networking are proposed under the Programme. The first type of networking is a formal network (bi-directional resource and expertise sharing) between Lead and Network educational Institutions. The second type of networking (non-formal network) will be between Programme Institutions and R&D Organizations specialized Laboratories, leading engineering and other educational institutions in India and abroad, industry and community.

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 2007-2008.

Under Formal networking for bi-directional resource and expertise sharing between BIT and Network educational Institutions.

BIT Mesra is the Lead Institute in Jharkhand, under TEQIP and the formally network partners are Birsa Institute of Technology, Sindri, Government Polytechnic, Dumka and Government Polytechnic, Ranchi.

Activities Flowing out of BIT Mesra

Two faculty from BIT Sindri attended course on Digital Signal Processing held at BIT Mesra 31st March – 2nd April.2007

Training of Library Staff in 02 Groups (03 each) of BIT, Sindri at BIT, Mesra on 25th-26th and 27th –28th Sept'07.

Consultancy in Management Information System & library Automation System on 14th Sept'07

Three Faculty from Govt. Polytechnic, Ranchi have been admitted in ME and M. Tech Programmes

Installation & Demonstration of Integrated Institute Information Management System by a team of Information cell, BIT Mesra in BIT, Sindri in Nov'07.

Training on "Importance of Mechatronics in Current Scenario " from 15th to 19th Jan'08 organized by Govt. Polytechnic Ranchi.

Activities Flowing in From Network Institutes

Dr. Om Prakash of Department of Chemical Engineering, delivered lectures on Process Control to UG students of BIT Mesra, Deptt of Polymer Engineering and Biotechnology.

"Familiarization with Modern Equipments" on 1st oct' 07 organized by Govt. Polytechnic, Dumka.

Training on Material Testing from 28th Nov to 1st Dec'07 organized by Govt. Polytechnic, Ranchi.

Short term Training programme cum Workshop on Lab VIEW from 07.03.08 to 08.03.08 organized by BIT, Sindri.

Joint Activities

Proposal for Major Research Project "Characterization and Evaluation of Cellular Metals" submitted to UGC jointly by Department of Production Engineering, BIT Sindri and Department of Production Engineering, BIT Mesra.

MTech Thesis of Mr. Subodh Kumar, PG Student of BIT Sindri, to be conducted under joint supervision of BIT Sindri and BIT Mesra.

Joint Research Proposal being prepared by Department of Polymer Engineering, BIT Mesra and Department of Chemical Engineering, BIT Sindri.

Networking meeting held on 3rd May, regarding the development & Training need by faculties of Govt. Polytechnic, Ranchi under leadership of BIT, Mesra

National Workshop on Industry Institute Interaction (NWI) organized by BIT, Sindri on 13.07.07 .

National Workshop on "Cleaner Production for Sustainable development: Status, Challenges, Opportunities & Vision" during 8th & 9th Dec'07 organized by BIT, Sindri.

National Workshop on Technological Challenges of 21st Century-"The Road Ahead" on 8th & 9th Feb'08 in BIT, Sindri

ENHANCING QUALITY AND REACH OF SERVICES TO COMMUNITY AND ECONOMY

The project expects all 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 are such activities carried out under the categories of Community: Unorganized Sector and Organized Sector. A survey has been done of around 300 villagers from near by villages, to find their needs. Future programmes are being planned on this basis. Following are such activities for the year 2007-2008.

SERVICES TO COMMUNITY: COMMUNITY

Watershed development plan surrounding BIT campus(5 Km radius), being prepared by Department of Remote Sensing.

Water quality assessment of ground & surface water resources in & around BIT, Mesra, conducted by Department of Applied Chemistry and students of M.Tech.(Environmental Science and Engineering)

"Mass awareness programme for drinking water quality, water management and sanitation techniques" in villages around BIT by Department of Applied Chemistry and students of M.Tech.(Environmental Science and Engineering)

Development of model village by students of NSS; Renovation of well, preparation of soakpit, building smokeless Chullah, and literacy survey

Computer awareness programme for villagers, being conducted by NSS students.

Awareness programme on food adulteration, training in detection by simple methods.

Awareness Programme on Solid waste management, including plastics waste management, by students of Polymer Engineering and Environmental Science and Engineering.

Workshop cum Training Programme on Development of Solar Powered Potter's Wheel & improved smokeless Chula organized by Mechanical Engg. Dept, BIT, Mesra in association with Jharkhand Energy Development Agency, Ranchi from 29th to 30th May 2007

IT Kiosk in villages: BIT has established an IT Kiosk, in Village School, Kislay. It is provided with Internet facility and computer operator, who will help villagers access Internet to access Agriculture Information System Developed by BIT as well as other information.

Study and Fabrication of 'Smart Clothing for Detection in Falls In Elderly People' is started

Awareness Programme on 'Role of Technical Education in Upliftment of Society' on 22nd Sept'07

SERVICES TO COMMUNITY: UN-ORGANIZED SECTOR

Development & Deployment of Agriculture information System (in Hindi). It is developed by Integrated Information Cell, and being deployed to villages by NSS students.

Awareness Programme on Post Harvest Technology and Management for farmers in May'07.

Workshop cum Training Programme on Automobile Engineering Systems from 4th June to 6th June 2007.

SERVICES TO COMMUNITY: ORGANIZED SECTOR

Development & Deployment of School information System in Hindi Development of Integrated Institution wide Information system for Educational Institution 'Awareness Building Program for School Teachers for the Latest Issues of Concern'

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 and 18th January '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 auditor assesses (i) Degree of progress on various activities envisaged under the project (ii) improvements in short coming noticed by the auditors during conduct of earlier audit, on the basis of focused discussion with four major stakeholders namely ViceChancellor, HODs, Faculty and students, and visit to the Institute Infrastructure. During the present academic year two Audits were conducted : the fourth performance Audit was on 16th & 17th April and an overerall score is 8.5. and the fifth performance Audit was conducted on 30th and 31st October 2007, and BIT obtained a score of 8.9. Prof. A.K Ghose, Ex-Director, ISM Dhanbad was the auditor for each case.

8th Joint Review Misssion was held at Ranchi, on 1st and 2nd February. Dignitaries from World Bank and NPIU visited BIT on 3rd February to assess the progress of the project and suggested improvement methodology. The dignitaries visited are: Prof. C. S. Jha, Consultant, World Bank, Mr. C. D. Mahajan, National Project Director, Dr. S. A. A. Alvi, Consultant, World Bank, Ms. Asha Bhagat, Finance Specialist, World Bank, Mr. S. Ramachandran, Consultant, Procurement, NPIU, Ms. Indu Sharma, Consultant Finance, NPIU, Mr. Sachin Gupta, Associate consultant Academics, NPIU, and Ms. Renu Sobti, Deputy Advisor, Planning Commission. They visited the facilities created under TEQIP and an exhibition on the Activities of TEQIP arranged for the occasion. After the visit a meeting was arranged with all the Heads, Deans and Advisors.

NPIU has planned to compile information on select innovative products/ machines/devices/novel processes to publish a brochure and the following innovations from State of Jharkhand, shortlisted for inclusion are all from BIT Mesra:

- Solar powered potter wheel,
- Solar powered Charkha,
- Pooja Dhoop extrusion machine.

NPIU has planned to compile the complete information on select best Institutional Practices to publish in form of a brochure as an outcome of TEQIP. The following best Institutional practices from State of Jharkhand, short listed for publication are all from BIT Mesra:

- Integrated Institute automation System,
- Industry Institute Collaborative Research,
- Mentoring of students by senior alumni,
- On line Examination in different subjects,
- Intellectual Property Management (IPM) Cell.
- Industry Institute Academic Programme

Naini, Allahabad



The Extension Centre at Allahabad is located at the Raymond crossing on Allahabad-Mirzapur Road on plot B-7 Industrial Area, Naini, Allahabad – 211 010. This Centre was setup in the session 1997-98 with the decision to start B. Tech. Degree programme in Civil, Mechanical and Electrical & Electronics Engineering for the Engineering diploma holders on part time basis. The first batch of students of B. Tech (Part-Time) programme was admitted in January 1998 and so far, three batches of students have completed their B. Tech. Degree programme.

In view of demand of trained computer and management personnel at National level and as also to provide job-oriented professional education and training to youth of the area, the Institute introduced (3-years) full-time courses like Bachelor of Computer Applications (BCA), Bachelor of Business Administration (BBA) and Master of Computer Applications (MCA) in subsequent years. As a result the Allahabad Centre offers the following programmes at the moment.

- | | | |
|---|---|-----------|
| (1) Master of Computer Applications (MCA) | - | Full Time |
| (2) Bachelor of Computer Applications (BCA) | - | Full Time |
| (3) Bachelor of Business Administration (BBA) | - | Full Time |
| (4) B. Tech in Civil, EEE & Mech. Engineering | - | Part Time |

The computer laboratory of this centre has over 100 P-4 computers connected through LAN network and Internet connectivity is available throughout 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, Springer Link and other resources to the faculty, students, staff under internet environment.

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, IC Engines laboratory, Manufacturing Processes laboratory, Non-conventional Energy 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 area, the following full time programmes are being planned to be added in near future at Allahabad Centre.

- (1) 4-years (Full Time) BE in Electronics and Communication Engineering
- (2) 4-years (Full Time) BE in Computer Science & Engineering
- (3) 2-years (Full Time) Master of Business Administration (MBA)
- (4) 2-years (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.

Brief Description of Departments

The Centre provides full time MCA, BCA and BBA Programme and part time B.Tech degree in various discipline like Civil, Electrical & Electronics and Mechanical Engineering.

Department of Computer Science

The Computer Science Department has spacious and well-equipped laboratories with a large number of HP P-D, IBM P4, DELL P4, Compaq P4 and Compaq Celeron computer systems, a Compaq Proliant Server and DELL PowerEdge Servers, with various operating systems and other software. All systems are networked and the Dept. has 2 Mb Broadband connection for Internet access. The students do project work on networking, web service, multimedia applications, Internet controlling tools, image processing, e-security, artificial intelligence, etc. Recently the Computer Science Department has established links with some neighbouring IT industries for better exposure to new development that are taking place through industrial visits and arranging popular lectures of experts from the industries. Teachers of the department are actively engaged in the research work.

Department of Management

The Department of Management currently runs a 3-Year BBA programme with an annual intake of 60 students and in near future a 2-Year full-time MBA course is likely to be started. The core faculty comprises of six full-time and two visiting faculty. From time to time, the department organizes guest lectures from experts for the benefit of the students and also provides in-house support to the students of other departments especially in the area of communication skills and management practices. The Department has developed a strong liaisoning with industries in the vicinity of Allahabad, where our students undergo practical training to make themselves aware of various problems faced by industries in general. Students do project work in the area of Marketing, Finance, Human Resource Management, Industrial Management under the able guidance of the teachers of the Department.

Department of Civil Engineering

The Department is at the developing stage. Presently, it is offering B Tech. course on part time basis for working Junior Engineers. The Department has full time faculty and also takes help of senior faculty of other institutes as visiting faculty. The Department has moderately equipped Geotechnical Engineering and Surveying Laboratories and some laboratories are in the process of being established. Teachers of the department are actively engaged in research work. Students of the department have done project work on environmental engg, Rural water supply, Foundation engg, Multi story building construction etc.

Department of Electrical and Electronics Engineering

The Department of Electrical and Electronics Engineering has Basic Electrical & Electronics Lab, Electrical Machines Lab, Digital Electronics Lab, Digital Signal Processing Lab, Microprocessor and Control Engineering Lab equipped with MATLAB software. The Department currently conducts B.Tech Programme for Part Time students only. The students have done projects on High Voltage Transmission, Modern Communication System, Control System, Energy Saving Devices etc. Recently the Department has established Power Electronics laboratory.

Department of Mechanical Engineering

The Department of Mechanical Engineering has a well - equipped laboratory in the Conventional area of Manufacturing and Mechanical fabrication. It has also a Non-Conventional Energy Resource Laboratories set-up with particular reference to Solar Energy.

The Department of Mechanical Engineering has a well-equipped Internal Combustion Engines Laboratory with facilities for the measurement of engine parameters, metering fuel and Exhaust gas conditions, monitoring and Energy Auditing.

The Department has recently established Computer-Aided Design (AUTO-CAD) Lab, Hydraulics Lab and Energy Engineering –II Lab.

The Dept. maintains continuous interaction with industry with a view to keep it in the dynamic industrial environment. The department also conducts Expert Lectures for students.

Department of Applied Science

The Department provides service to the students in the area of Mathematics, Physics, Chemistry, Environmental Science etc. The teachers of the department are actively engaged in research work.

Degree / Diploma Offered

(A) Full time Programme

- (i) Master of Computer Applications
- (ii) Bachelor of Computer Applications
- (iii) Bachelor of Business Administration

(B) Part Time Programme

- (i) B.Tech in Civil Engineering
- (ii) B.Tech in Electrical & Electronics Engineering
- (iii) B.Tech in Mechanical Engineering.

Academic Innovations, Research & Development activities

Publication by faculty

1. The paper entitled Assessment of Air Quality along With Urban Corridors Using Air Quality Index Singh, B.K. at the National Conference on "*Environmental Pollution and Health Problems and Solutions*" held at India International Centre, New Delhi, on 19th & 20th April, 2007.
2. The Paper entitled Performance Evaluation of General Finite Line Source Model for Prediction of Sulphur Dioxide of Vehicular Exhaust Singh, B.K. at a National Conference on Water and Waste Management held at Department of Civil Engineering, JNTU College of Engineering, (A.P.) on 23rd & 24th April, 2007.
3. The Paper entitled Automobile Air Pollution-Effects on Human Health and Control Measures at the National Conference of NCSTBT-2007 held at Department of Civil Engineering, Vellore Institute of Technology, Vellore(T.N.) on 19th & 20th December, 2007.

Seminar/conference/short term course attended by faculty members

1. Kanungo, S., Lecturer, Department of Computer Science has participated in a seminar "*Sensitization Cum-Awareness Program for Technology Information Facilitation*" organized by DSIR, New Delhi and IIIT, Allahabad. on 27th October, 2007.
2. Pandey, R.S. Sr. Lecturer, Department of Computer Science has participated in a seminar "*Sensitization Cum-Awareness Program for Technology Information Facilitation*" on 27th October, 2007, organized by DSIR, New Delhi and IIIT, Allahabad.
3. Singh, A.K. Lecturer, Dept. of Mechanical Engineering has attended a national seminar on New and Renewable Energy-Prospects and Challenge" at Birla Institute of Technology, Ranchi, India held on 17th- 18th Dec, 2007.
4. Kumar, S. S. Lecturer, Department of Applied Sciences has participated in an International Seminar on "Education and Research Scenario in Engineering and Technology at United Institute of Technology, Allahabad held on 19th November, 2007.
5. Kumar, S.S. participated in a Short Term Education Course on Metallurgy for Engineers-2007" from 10th December to 14th December held at N.M.L. (CSIR Lab), Jamshedpur.
6. Pandey, R.S. Sr. Lecturer, Department of Computer Science has participated in a seminar "Scientific Foresight-2007" at S.K. Memorial Hall in Patna by the department of Science and Technology, Govt. of Bihar. held from 22nd December to 24th December, 2007.
7. Kumar, N. Associate Lecturer, Department of Electrical and Electronics Engineering has participated in a seminar Scientific Foresight-2007" at S.K. Memorial Hall in Patna by the Department of Science and Technology, Govt. of Bihar, held from 22nd December to 24th December, 2007.

Students Activities

1. BITEC Souvenir – 2007 published for better interaction of the outgoing students.
2. The student's cultural committee organized various competitions such as debate, solo song, group song to promote spirit of healthy competition among the students on 15th August.
3. Students of different batches of MCA are attending Personality Development Program with the help of Training and Placement Cell of the Institute.
4. Students appeared in the placement of Hughes Technologies which came to the Allahabad Campus.

Infrastructural facilities added during the year 2007-08***(I) Department of Computer Science***

- | | | |
|--|---|---------|
| 1. 600 VA UPS (Microtek Make) | - | 05 Nos. |
| 2. Deskjet Printer (HP Make) | - | 01 No. |
| 3. 1.5 Ton Air-Conditioner (window type) Votas Make) | - | 04 Nos. |
| 4. 48 port Dlink Switch (for Networking) | - | 01 No. |

(II) Department of Electrical & Electronics Engineering

Power electronics lab has been established.

(III) Department of Mechanical Engineering

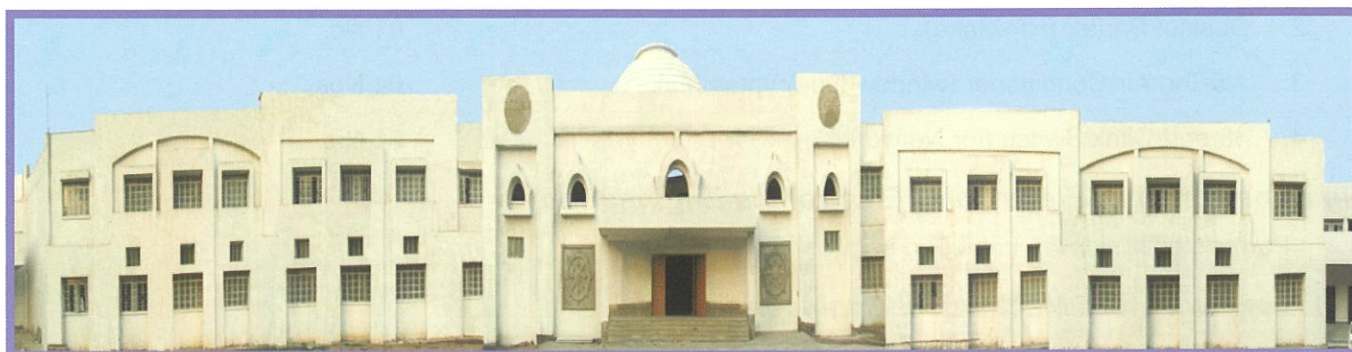
Hydraulics Lab and Energy Engineering Lab has been established.

(IV) Common Facilities

For uninterrupted power supply to laboratories and for project work, the centre has established the following common facilities

1. 50 KVA Generator (Kirloskar Make)
2. 100 KVA Automatic Voltage Controller(Jindal Make)

Patna



The Institute's Extension centre at Patna was established in 2006, on the request of the Government of Bihar. A Memorandum of Understanding was signed between the Institute and the Government of Bihar in December 2005. Subsequently, the Government of Bihar allotted 25 acres of land located between Bihar Veterinary College and the Jai Prakash Narayan International Airport at Patna and also agreed to release the requisite funds for establishing the centre. The foundation stone of the centre was laid on 24 December 2005 and construction started in April 2006.

The academic activities at the Patna centre commenced in September 2006 with admission to the B.E. programme in Computer Science, Electronics & Communication Engineering and Electrical & Electronics Engineering, with an intake of 40 students in each of these disciplines.

In the academic session 2007-2008, the intake at the Patna Centre was increased to 300 as per the provisions of the above MoU, and the admission has been through AIEEE-2007 and the central counselling by the Central Counselling Board.

Course Offered: CSE, IT, ECE, EEE, ME, PE, & CE

Faculty Position

Designation	Professor (visiting)	Reader	Senior lecturer	Lecturer	Associate lecturer
Number in Position	04	02	04	10	06

Number of Students enrolled with Centre

2006 Batch	120
2007 Batch	291
Total	411

Ongoing Projects

Sl. No.	Research Project Topic	P.I./Co-P.I.	Funding Agency	Amount Sanctioned
1.	Preparation & Characterization of Lithium Titanate for Breeder Blanket.	Dr. S.K. Sinha	Board of Fusion Science Application & Research (DAE, GOI)	Rs 9,77,300

Seminar / Conference/ Workshop etc Conducted

1. Scientific Foresight- reinventing the Renaissance was organized in Dec'2007 in Collaboration with Deptt of Science & Technology, Govt. of Bihar.
2. One – Week Trainers Training Programme on Computer Fundamentals for Technicians of ITIs of Bihar was organised in December 2007.
3. One – day Workshop in “Implementation of Energy Conservation Act- 2001 in the State of Bihar” was organised in Feb, 2008 in collaboration with Bureau of Energy Efficiency (B.E.E.), Ministry of Power, Govt. of India & BREDA.

Publication by faculty**International**

1. Sharma, K. “Studies of some co (II), Ni (II) & cu (II) complexes with a Mixed Ligand Schiff base” Asian Journal of chemistry, 20 (1), 137- 142, 2008.
2. Panigrahi C.K. , Chattopadhyay P.K. and Chakrabarti R, “Load Dispatch and PSO Algorithm for DED Control” International Journal of automation and Control”, Inderscience Publishers Ltd. Vol. 1 No.2/3, pp 195- 206,2007
3. Panigrahi C.K., Chattopadhyay P.K. AND Chakrabarti R, “Economic environmental Dispatch by a MODE Technique”, Journal of Circuit, system and Control, World scientific publishing in vol. 17, No.3, June, 2008.

National

1. Panigrahi C.K., Chattopadhyay P.K., and Chakrabarti, R. “Open Transmission Access in deregulated power Industry” Proceedings of Workshop on grid Security In Open access Regime (GSIOAR – 2007)”, IT- BHU, Varanasi, August, 2007.
2. Panigrahi C.K., and etal “Impact Assessment of Renewable sources using portfolio – Based electricity Generation planning” Proceedings of the National Conference on new and Renewable Energy: prospects and Challenges BIT”, Mesra, pp 195- 199, December,2007.
3. Prashant, K. “Harvesting the God's gift – The solar radiation Proceedings of work shop on Implementation of Energy Act 2001 in Bihar”.
4. Prasad, U., Panigrahi, C.K., Chattopadhyay, P.K. “Non- Convex Ramp constrained ELD Solution by EP Algorithm”, First Indian Conference on Trends in Modern Engineering Systems, IEE (UK) Calcutta Branch , February, 2008.
5. Soren, N., Panigrahi, C.K., and Prasad, U. “Integrated Rual Energy Planning – A case study’ proceeding of 2nd National Conference on advances in Energy Conversion Technology”, (AECT – 2008) MIT,

Manipal April, 2008.

6. Prasad, U., Panigrahi, C.K., Chattopadhyay, P.K., "FACTS Controllers in Restructured power Market" Proceeding of 2nd National conference on advances in Energy conversion Technology", (AECT – 2008) MIT, Manipal April 2008.

Awards/ Citationas bestowed on faculty members and students

1. Faculty – Panigrahi C.K. Chattopadhyay P.K., EEE, Awarded PhD (Engg.) from Jadavpur University, Kolkata in December, 2007.
2. Students – Punit shukla, Rohit Raman, Gaurav Kumar & Rahul Praksh of B.E 2006 Batch won the first prize in the model Competition in the scientific Foresight Programme for their "Model Path Finder."



The BIT Extension Centre Jaipur was established in 1995 in the sprawling campus of the reputed Birla Institute of Scientific Research (BISR) that is well known for its contribution in the field of applied science and entrepreneur development programme since its inception in 1955. 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. The Centre caters to the growing need of skilled & quality professionals through the pursuit of knowledge in the field of Education, Research, Technology Exposure and Multiple Skill Development Training. The institute equips the students with necessary competence and right attitude to face the competitive scenario in their professional career. 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 and Management.

Courses Offered

Undergraduate : B.E. in two branches of Engineering

- i) Computer Science & Engineering
- ii) Electronics and Communication Engineering

BBA , BCA & B.Sc. (Animation & Multimedia)

Postgraduate : MBA , MCA , M.Sc.in Bio-informatics

M.Sc. Geo-informatics

Academic & Other Activities

To meet requirement of practical training and professional exposure to students , the institution arranges project work and summer training in reputed industries. During training, students learn the general functioning of the organization and obtain specialized knowledge and skills in the area of their discipline

The internal seminars are regularly conducted in the auditorium of BIT Jaipur. The purpose is to give the students an adequate environment where they can learn subject, analysis, presentation skills and interaction with audience.

External Seminars are conducted from time to time. Eminent experts from emerging technology areas are invited to deliver lectures on the latest developments and technologies. Institution also conducts national and international level seminars/conferences/workshop to give its faculty and students an exposure to new developments in the emerging technologies and trends. Such events widen the knowledge base and vision of the faculty and students. To cater the urge of lead through creation, the institute conducts competitive technical events based on development of software, new generation product models, innovative management case studies and creative arts.

For overall personality development, extra-curricular activities are given due importance along with academic activities. The students organize the activities and as a result, improve their own leadership skills. Cultural events, sports, quizzes and debates are organized under the supervision of experienced faculty members.

Campus Placements

The institution has a placement cell to guide students about their career plan, to train them and to facilitate their placement in reputed organizations. The expert faculty members having vast experience in the area of high learning and industry; the excellent relationship with prospective employers and an intelligent mechanism of analysis of student's interest, strength, weakness, training needs, etc. are the highlighting features of the placement cell. The focus of the placement cell is to train and equip students in such a way that they are gladly accepted by the best organizations & industry. Our students are working in the best organizations all over the world and their track record has been excellent. It operates under the guidance of placement division of our main campus at Mesra, Ranchi.

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 could be mentioned as 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, 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 wireline 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, COMSIM, Code Composer Studio for DSP, Xilinx's ISE Foundation for VLSI design, 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 .The MBA course is trimester wise on internationally recognized pattern and the BBA course is 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.

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.

Bio-Informatics Department

The course covered under this department is two years M.Sc. Degree in Bio-informatics.

After IT revolution, Bio-technology is considered as the area of immense growth potential as it covers fulfilment of basic needs of mankind like; food, clean environment, energy, health, etc. As IT is now a part of most of the science and engineering disciplines, it has tremendous potential in bio applications too, thus advent of new interdisciplinary subject Bio-informatics has taken place.

The Department of Bio-informatics in the institution offers a unique course at postgraduate level to formulate various applications of computer and IT in understanding tedious biology concepts and thereby facilitating fast development of new bio-products. The core strength of the institution in Computer Engineering and in Bio-technology 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; Molecular bio-lab, PLASTA & FASTA Algorithm Lab, Genomics & Proteonomics Lab, MATLAB & SPSS-bio-informatics tool kit, Bio-PERL, Bio-JAVA, VC++ with MFC, MYSQL.

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 its 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 applications 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; Erdas 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

Faculty Position

Designation	Professor	Reader	Lecturer Selection Grade	Senior Lecturer	Lecturer	Associate Lecturer	Research & Systems Staff Partially Associated in Teaching
	2	4	1	7	25	5	17

Number of Students Enrolled with the Centre

S.No.	Programme	Semester	No. of Students
1.	MBA	III	41
		VI	45
		Sub Total (MBA)	86
2.	MCA	II	38
		IV	43
		VI	42
		Sub Total (MCA)	123
3.	M.Sc. (Bio-informatics)	IV	23
4.	M.Sc. (Geo-informatics)	IV	13
5.	BE (ECE)	II	42
		IV	39
		VI	39
		VIII	39
		Sub Total (BE-ECE)	159
6.	BE (CS)	II	41
		IV	39
		VI	39
		VIII	27
		Sub Total (BE-ECE)	146
7.	BBA	II	62
		IV	42
		VI	64
		Sub Total (BBA)	168
8.	BCA	II	46
		IV	44
		VI	44
		Sub Total (BCA)	134

and Robotics" organized by Institute of Engineers, Jabalpur Local Center Jabalpur, M.P., June 2-3 , 2007.

2. Sharma Anil ., Dangayach G.S, Process Improvement Strategies for Small & Medium Enterprises presented at All India Seminar on Automation in manufacturing & Process Industries organized by Institute of Engineers, Jaipur August 18-19, 2007
3. Sharma Anil ., Project Proposal on Heavy Engineering presented at 2nd National Convention on Energizing Entrepreneurship through Innovation Organized by Birla Institute of Technology and Science, Pilani, November 2-3, 2007
4. Bhutani Shipra "Advertising and Childre", presented at "AD-Impact", a national seminar organized by Birla Institute of Technology, Noida Campus on 24 August 2007.
5. Bhutani Shipra "MR. Fixit, One stop solution to all Maintenance problems – a business plan" presented at the National Conference for Energizing Entrepreneurship through Innovation, Organized by BITS, Pilani on November 1, 2007.

Seminar/ Short term Course Attended

1. Jhankal Anuj & Dadeech I.K, AICTE-Staff Development Program on "Application Orientation in Engineering Mathematics" held at Malaviya National Institute of Technology, Jaipur, June 25-2007 to July 6, 2007.
2. Jhankal Anuj & Dadeech I.K. , QIP- Short Term Course on "Numerical Computations using Software Tools" held at Indian Institute of Technology, Roorkee, July 14-18, 2007.
3. Jhankal Anuj, QIP- Short Term Course on "Theory, Numerics and Applications of Differential Equations" held at Indian Institute of Technology, Guwahati, December 10-14, 2007.
4. Gurvinder Singh & Dadeech I.K, Indo-Australian Workshop on "CFD Approach on Fluid Flow, Heat and Mass Transfer" at IIT, Roorkee from April 12-14, 2007.
5. Sharma J.B. , Workshop on –Technology Entrepreneurship for faculty organized by BITS, Pilani, November 23-24, 2007.
6. Ranjan Rajeev, QIP-Short term Course on Wireless Communication and Networking, organized by G.S. Sanyal School of Telecommunication, IIT Kharagpur, May 14-19, 2007.
7. Anil Sharma, AICTE sponsored short term training Programme on Emerging trends in Refrigeration and Air Conditioning (ETIRAC-2007) organized by the Department of Mechanical Engineering at Fr. C. Rodrigues Institute of Technology, Mumbai, during November 12-16, 2007.
8. Dr. Vibhuti Pandya, Mr. Vivek Sharma, Mr. Niket Mehta, Mrs. Anindita Banerjee, Workshop on - Maya 8.0, organized by AutoDesk India Ltd. on October 11, 2007 at Jaipur.
9. Mr. Niket Mehta, Short Course in Game Development, organized by Sage Academy of Game Engineering, New Delhi, August 2007 – October 2007.

Awards/Citations bestowed on faculty members and students

1. Fastest Programming: First Prize to Ayushi Garg (B.E. Student) in Technical Fest at Thapar Institute of Engineering and Technology, Patiala, 2007.
2. Machine Modeling: First Prize to Mayank Dadheech (B.E. Student) & Vaishali Dev (B.E. Student) in Technical Fest at Thapar Institute of Engineering and Technology, Patiala, 2007.

3. Autocad Linking Roads & Bridges : Second Prize to Tarun Kumar (B.E. Student) & Pramod Rathi (B.E. Student) & Vinit Gupta (B.E. Student) in Technical Fest at Thapar Institute of Engineering and Technology, Patiala, 2007.

Other worth mentioning events related to Collaborative Programmes initiated at the Jaipur Centre

1. 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).

Kolkata



The Kolkata Extension Centre was established in 1995. This Centre offers academic programmes in Computer applications and Business Management. The Centre has 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(another new area of 10,000sq. ft.(approx.) has been which includes covered space of 5500 sq.ft and open terrace of 4025 sq.ft) 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 512 kbps leased line.

The Centre is running the following courses

1. MCA
2. BCA
3. BBA
4. M.Sc/PG Diploma in Bioinformatics
5. M.Sc Geoinformatics

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, Sarangsoft, 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,

Sunrise software, Aricent, Agilent Technologies, TCS. 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 faculty from IIT Kharagpur, Jadavpur University, Burdwan University, B.E College (Shibpur), Bengal Institute of Technology, GIS college etc.

Courses offered

UG Course 1. BBA 2. BCA

PG Course 1. MCA 2. M.Sc. (BIOINFORMATICS) 3. M.Sc. (GEOINFORMATICS)

Faculty position

Designation	Professor	Reader	Lecturer- selection-grade	Senior Lecturer	Lecturer	Associate Lecturer
Number in Position		3		1	8	2

Number of Students enrolled / registered with Department

Semester	No. of Students
BBA II	62
BBA IV	62
BBA VI	61
BCA II	77
BCA IV	75
BCA VI	78
MCA II	46
MCA IV	43
MCA VI	48
M.Sc. (BIS) II	18
M.Sc. (BIS) IV	22
M.Sc. (GIS) IV	12
TOTAL	604

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 / Workshop etc conducted

- All India Seminar on 21st Century Business Practices : The Evolving Trends in India (October 6-7, 2007)
- Regional Student Convention Jointly organized with Computer Society of India, Kolkata Chapter (February 24, 2008)

Publications

National

1. Dutta, S., Ethical Practices in Small Business: "A Cross Country Comparison, (Co-authored). Vidyasagar" University Journal of Commerce, Vol XII, ISSN 0973-5917, 2007.
2. Dutta, S., "Enhancing Technological Learning & Innovation in Indian Small and Medium Enterprises". The Alternative, journal of Management studies and Research, Vol VI (1).
3. Dutta, S., coedited the book, "The 21st Century Business Practices : The Evolving Trends in India", Macmillan India Ltd., 2007.
4. Mukhopadhyaya, S., coedited the book, "The 21st Century Business Practices: the Evolving Trends in India", Macmillan India Ltd., 2007.

Seminars / Symposiums / Short Term Courses Attended by faculty members in the following format

International

1. Dutta, A. Bit-Plane Extension to a class of Intensity based corner detection algorithms at European signal processing conference (EUSIPCO 2007), held at Poznan, Poland, September 3 – 7, 2007.
2. De Sarkar, A., etal., A hierarchical Agent framework for Tuning Application Performance in Grid Environment. proceedings of IEEE APSCC 2007 conference in Tsukuba, Japan, December 11-14, 2007, pp.296-303

National

1. Dutta, A, Banerjee, T. K., and Chatterjee, R. K. Attended a workshop Winter School for operations research teacher at IIM, Ahmedabad, from February 16 – 24, 2008.
2. Goswami, R. T., Dutta, A., Chatterjee, R. K, Banerjee, T. K., Ghosh, S., Mitra, S., and De Sarkar, A., Participated in the All India Seminar on 21st Century Business Practices : The Evolving Trends in India, October 6-7, 2007.
3. Mukherjee, K., and Chaudhuri, S., ERP integration Indian Scenario – A case study. All India Seminar on 21st Century Business Practices: The Evolving Trends in India, October 6-7, 2007.
4. Mukherjee, K., and Sahoo, G., Green Computing: A new promise. National Symposium on role of Green computing in mitigating environment conflicts, at BIT, Mesra, Ranchi, March, 18-19, 2008.

5. Sengupta, S. K., Co-Convener at the All India Seminar on 21st Century Business Practices: The Evolving Trends in India (October 6-7, 2007).
6. Bhattacharjee, S., attended a 2-day workshop on Initiative and Innovation for Managerial Effectiveness at the Calcutta Club organized by the Human Development Centre during July 16-17, 2007.
7. Bhattacharjee, S. Women and Education in India at national seminar on Indian Women in Present Day Society organized by the Women Cell, J. B. College, Jorhat, Assam during August 31 – September 01, 2007.
8. Bhattacharjee, S., Chaudhuri, S., Finance chair and Co-chair at the All India Seminar on 21st Century Business Practices : The Evolving Trends in India (October 6-7, 2007).
9. Dutta, S., The Economics of Tourism Advertising – A Catalyst for Regional Development at the Ad-Impact, A national Conference on Advertising at BIT, Noida campus
10. Dutta, S., Emergence of Venture Capital in India: Positive Implications for Technology Start – Ups at the All India Seminar on 21st Century Business Practices : The Evolving Trends in India (October 6-7, 2007).
11. Mukhopadhyaya, S., Participated in the IEEE WIE National Symposium on Emerging Technologies (WieNSET – 2007), Kolkata June 29 – 30, 2007.
12. Mukhopadhyaya, S., Publication Chair at the All India Seminar on 21st Century Business Practices: The Evolving Trends in India (October 6-7, 2007).
13. Goswami, R. T., Organising Chair at the Regional Student Convention Jointly organized with Computer Society of India, Kolkata Chapter (February 24, 2008).
14. Chaudhuri, S. Finance Co Chair at the Regional Student Convention Jointly organized with Computer Society of India, Kolkata Chapter (February 24, 2008).

Infrastructure facilities added during the year 2007-08

1. New lab with 100 computers, wifi networked
2. One class room of 75 capacity
3. One faculty room of capacity of 8 people

Lalpur, Ranchi



BITEC 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.

In 1997, the Institute started the full time courses, B.Sc. Computer Science and B.Sc. Electronics for girls, and in 1998 the BCA course, again for girls only. These were successfully conducted in 1999 and subsequently the BCA course for boys was also started. The M.Sc. Information Technology and M.Sc. Electronics and Telecommunication courses for girls and BBA course for girls and boys were introduced in 1999.

Quality is of paramount importance at the Lalpur Extension Centre. The faculty members at the Lalpur Extension Centre have considerable academic and corporate experience, as do the distinguished visiting academicians and the professionals from different industries.

The students, research scholars and faculty members have access to our library books, journals and periodicals. The Centre has well equipped computer laboratories with 167 PCs connected to LAN, broadband connectivity, latest software and online journals. The fully computerized branch of UCO Bank is within the campus and serves the students, staff and others in the campus. To fulfill the immediate medical requirements of staff and students, the Centre has Dispensary-Cum-Health Centre in the campus. The centre also has a canteen to cater to the needs of the staff and students.

Currently the Lalpur Extension Centre has over 1949 students on its rolls, of which almost 613 are postgraduate students of the Lalpur Centre organize their own cultural and extra-curricular events, and also take active part in sports and cultural events organized at Mesra.

Campus Placements

The Training & Placement division of an institute acts as an interface between the academia and corporate sector and here at our institute this work is handled in a stupendous way by a team of training & placement student coordinators under the supervision of the Faculty-In charge. During the year different reputed organizations likes Infosys, HCL, TCS, Cognizant, Accenture, Wipro, Goldman Sachs, HCL Infosystems, HCL Commnet, Trident, ICICI, UTI, Goodyear, Pantaloon, IDBI, Reliance, ISPAT Industries, BLUE STAR etc. visited the centre.

In addition to the placement, the division arranges industrial visit for the students regularly. The institute also helps the students in getting industrial training, projects at different organizations and arranging guest lectures.

Course offered

UG Course

Full Time

- Bachelor of Computer Application
- Bachelor of Business Administration

PG Course

Full time

- Master of Computer Application
- Master of Business Administration
- M.Sc. (Information Technology)

Part Time

- Master of Business Administration
- M.Tech. (Computer Science)

Faculty Position

Designation	Associate Professor	Reader	Senior Lecturer	Lecturer	Associate Lecturer	Teaching Assistant
No. in Position	01	01	02	15	07	03

Number of Students enrolled / registered as on 31st December, 2007.

Course	No of students enrolled
BCA	667
BBA	669
MCA	346
MBA	189
M.Sc. (IT)	60
M.Tech. (Comp.Sc.)	18

TECHNICAL PAPERS PUBLISHED & CONFERENCE/SEMINAR/WORKSHOP ATTENDED BY FACULTY MEMBERS

Department of Computer Science & Engineering

Sl. No.	Attended Conference, Workshop & Seminars / Publications/Paper Presentation/Paper Reviewed	Venue and Duration of the Conference	Details
1.	Dr. V. Bhattacharjee and Mr. P.S. Bishnu		
	Paper Presentation in the National conference on method and nodes in computing (NCM 2c -07)	J.N.U, New Delhi Dec. 13-14, 2007	"Neural Network Modeling and prediction of crop yield" (With Mrs. A. Priyam, Mrs. Onima Tigga & Ms. Jaya Pal)
2.	Dr. V. Bhattacharjee and Mr. Kumar Rajnish		
	Paper publication in "INFOCOMP- Journal of computer science", Federal University of Lavras, Brazil, 2007.		"Class Inheritance metrics - An Analytical and Empirical Approach". Accepted 1'0
	Paper Publication in the proceedings of IEEE international conf. on information Technology, published by IEEE computer society press, 2007.	NIT Rourkela, PP-234-236	"Applicability of weyuker property a to object-oriented inheritance Trumetric- Adiscussion"
	Paper Publication in the proceeding of International conference on Information system Technology and Management (CISTM-07), published by the information institute, USA, PP-36-45.	Osmania University, Hyderabad.	"Object-oriented class complexity metric -A case study"
	Paper Publication in the proceedings of National level Technical conf.(Technovision-07) Sri Shankaracharya College of engineering and Technology, 2007, PP.145-150, Bhillai		"An Empirical Approach to Inheritance Tree metric"
	Paper Publication in the proceedings of National conference on method and nodes in computing (NCM 2c - 07) published by Macmillian Advanced Research series, 2007.	JNU, New Delhi	"Interaction among classes and its effect on Cohesion metric".
	Publication in the proceedings of 5th Annual Conference on Information Science Technology and Management (CISIM), Pennsylvania Ave, Washington DC, USA..	July 16-18 Hyderabad	Object-Oriented class Complexity Metric- A case study.

	Published in the International Journal of Science and Research [IJSR], Victoria, Australia	Australia 2007	"Class Cohesion: An Empirical and Analytical Approach". Vol2, No.1, PP. 53-62.
	Publication in International Journal Titled as " PCTE Journal of Computer Science", Ludhiana, Punjab.	Ludhiana 2007	"Class Inheritance metrics and Develop-ment Time: A study" Vol2, Issue 2, PP. 22-28
	Accepted for publication in "International Journal of Information Technology", WASET.		"An Analytical and Empirical Approach to class Inheritance metrics"
3	Dr. V. Bhattacharjee & Mr. Sanjay Kumar		
	Accepted for Paper presentation in NCIT- 2007	Asia Pacific Institute of Management, New Delhi. August, 31st to 1st September, 2007.	"Analogy and Expert Judgment: A Hybrid Approach to Software Cost Estimation".
4	Mrs. Amrita Priyam		
	Attended The Short Term Training Program	Department of EEE, BIT Mesra, Ranchi 21st to 22nd April, 2007	"Application of MATLAB and Tool Boxes".
5.	Mr. N.P.Tiwary		
	Paper presentation in National Conference on Emerging Technologies and Trends in IT 2007	India Habitant Centre, Lodhi Road, New Delhi 6 - 7th April 07	Paper Topic: " Role of key distribution center in managing key for providing security in the Internet model.

Department of Management

Sl. No.	Attended Conference, Workshop & Seminars / Publications/Paper Presentation/Paper Reviewed	Venue and Duration of the Conference	Details
1.	Ms. Anupma Sahai		
	Paper presented in International Conference on Knowledge, Culture and Change in organisations "Management conference 2007". Paper published on conference website (online publication)	Singapore Management University, Singapore 24-27 July 2007	Human excellence: Future wave for value creation Can be assessed at HTTP : M07.cgpublisher.com /proposals/s
2	Mr. Somnath Mukherjee		
	Attended the Faculty Development Programme	ISM, Ranchi May 14-23, 2007	AICTE Govt. of India Sponsored Programme

3	Mr. S.N .Sahdeo		
	Attended the Faculty Development Programme	ISM, Ranchi May 14-23, 2007	AICTE Govt. of India Sponsored Programme
	Paper published in Journal of MTI, SAIL "GROWTH" Vol-35, No.2,	July-Sept.-2007	"Customization of Marketing mix for future prospect of marketing"
4.	Mr. Ashutosh Mishra		
	Paper published in -Bizcraft (Journal of SRMS College of Engg & Tech. Bareilly UP. Vol. 1, No.2 (Mar. 07 - Aug-07) Page 21-31.	March - Aug 07 BIZCRAFT	"Agriculture Marketing Infor- mation System: A mecha- nism for SOCIO economic development of a nation"
	Accepted for paper presentation in NCIT-2007	Asia Pacific In!titute of Management, New Delhi Aug 31-01 Sept., 2007	ICT for Income Growth in Rural India: An Analysis of Agricultural Sector
5.	Mr. Amitabh Chandan		
	Paper published in Ranchi University journal of social science and Humanities (RU JOSH)	June, 2006 (Annual Publication)	Performance Management system at Tata Steel"
6.	Mr. Satrajeet Choudhary		
	Paper presented in National seminar on "Vision 2020 Management Challenges and competitive advantage"	Xavier Vignana Jyothi Institute of Management, Hyderabad 23rd & 24th Nov. 2007.	Retelling the Retail.
7.	Mr. S. Anis Haider		
	Paper accepted for publication in IRR		Significance of Emotional Intelligence
8.	Ms. Mili Dutta		
	Paper presented in the Awareness programme on Post Harvest Technology, (TEQIP CELL)	14th May 07, BIT Mesra	Pack house, an effective way of post harvest management with Dr. R.N.Bhagat



New Courses introduced

Two new courses approved by Hon'ble Vice Chancellor, BIT, Mesra, Ranchi for Noida Centre from Academic Session 2008-2009. Namely

- (i) PG Certificate course in Retail Management (11 Months Course).
- (ii) PG Certificate course in Banking and Insurance (11 Months Course).

Sanctioned intake of each course at BIT-EC, NOIDA

MBA	-	60
MCA	-	60
BBA	-	80
BCA	-	80
B.Sc (A&M)	-	80

Conference / Seminar / Workshop organized

Name of the Event	Date & Duration	Venue	Conven-ner	Chief Guest	Other Dignitaries	Key Note Address	Brief Report of the Event	Press Cover-age
"Advertising and Brand Building" Conference –AD-IMPACT	24-25 th Aug' 2007	BIT-EC, NOIDA	Mrs. Rachna Prateek	Mr. Atulit Saxena, V.P. (Brands), Future Brands	Mr. Mayank Parikh, G.M. Marketing, Maruti Udyog Ltd.	Mr. Mayank Parikh, G.M. Marketing, Maruti Udyog Ltd	The theme of the Conference was on Brand Building & Advertising, the current and future scenario and its Impact.	Times of India, N.D., Hindustan Times, N.D., And other Hindi daily of NCR's.

Book Published

Title of the Book	Publisher	Date of Publication	Authors	Remarks
Case Studies in Marketing Mgmt.	Pentagon, Press	2007	Dr. S.L. Gupta	Case Folio on Marketing Mgmt.
Consumer Behavior (Concepts and Application)	New Age International, (P)Ltd.	2007	Dr.Tarun Pandeya	A Text Book for UG & PG Students of Management.
E-Book, Sales & Distribution for Pharmaceutical Mgmt.,	National Institute of Science Communication and Information System (A Premier CSIR Lab.)	Online from March' 2007 onwards	Dr.Tarun Pandeya	An E-Book for distance learning programme.

Technical Papers Published by Faculty Members

Name of the Faculty	Title of the Paper	Journal	Remarks
Prof.(Dr.)S.L. Gupta	Indian Retail Industry: Strategies , trends and opportunities 2007	AIMS International Conference Proceedings – USA	Technical Paper presented.
Prof.(Dr.) B.K. Jha, Prof.(Dr.)S.L. Gupta & Prof. Sanjeev Bahadur	Quality Education & Competitive Advantage in Indian B-Schools.	The ICFAI Journal of Higher Education – Nov' 2007.	A perspective study of Higher Education.
Dr.(Mrs) Asha Prasad, Reader	Deregulation and HRM: The case of Indian Electricity Sector.	Productivity Journal of National Productivity Council Vol.48.2 July-Sep' 2007	A case study on Indian Electricity Sector.
Prof.(Dr.)S.L. Gupta Prof. Sanjeev Bahadur Mr. Hitesh Gupta (Research Scholar)	Risks and Rewards in Export Entrepreneurship from Indian subcontinent.	The AIUB Journal of Business and Economics published by American International University Vol. 6 No.2 Aug'07	A case study on Exports Entrepreneurship.
Dr. Tarun Pnadeya, (Sr. Lecturer) & Mr. Pranam Goyal (Research Scholar)	Entrepreneurial Marketing Management: A Historical Perspective on Development & Practice.	An annual journal of Entrepreneurship Development Cell of MNIT Jaipur Vol.3(April' 06 – Mar' 07)	A perspective study of Entrepreneurial Marketing.
Dr. Tarun Pandeya (Sr. Lecturer)	Impact of Humor in Advertisements: A perspective for Managers and Entrepreneurs	Technopreneurship – A magazine by DST URL: www.techno - preneur.net	An online magazine by Dept of Science & Tech.

Dr. Tarun Pnadeya (Sr. Lecturer)	Making A Great Advertisement	BVIMR Management Edge. July- Dec'07, Vol.1No.1	A biannual refereed journal of BVIMR, N.D.
Mrs. Meenakshi Sharma, (Lecturer)	Real Estate Retailing in India – An Exponential phenomenon.	A journal of Management of IT – MERI, October, 2007.	A Research publication.
Mrs. Suparna Dutta, Lecturer	Role and relevance of communications skills in Higher Education : An Indian perspective	ICFAI Journal of Higher Education – Aug'07.	A research papers on Communication Skills
Mrs. Vandana Sharma, (Sr. Lecturer) & Dr. A. K. Singh	Knowledge Management and Organizational Learning : An Empirical study of its implications on Employee satisfaction in the emerging global economy	Corporate Strategies and innovations in the emerging global economy	Published in a book.

Conference / Seminar / Workshop attended by faculty members.

Name of the Faculty Members(s)	Name of Conference Seminar / Workshop attended	Venue	Duration	Wheth- er paper pre- sented	Name of the Paper	Any other information
Dr. S.L. Gupta Prof. S. Bahadur Mr. P. Singh	Nationl Conference on "New Approaches to Insurance Business Market & Customers Expectations'	FICCI, New Delhi	16/02/2007, (One Day)	No	NA	Report of the proceedings submitted.
Dr.(Mrs) Asha Prasad, Reader	6 th International Industrial Relations Association of Asian Regional Congress : The Changing Global Labour Market Challenges and Opportunities for Asia	New Delhi	19-21 st April' 2007 (Three Days)	No	NA	Report of the proceedings submitted.

Mrs. Rachna Prateek & Prof. Sanjeev Bahadur	Making Magic of teaching – A workshop on teaching pedagogy & case method of teaching.	BIMTECH, Greater, NOIDA	10 th May 2007 (One Day)	No	NA	Report of the proceedings submitted.
Ms. Vandana Sharma, Sr. Lecturer	International Seminar & Coaching Programme –Maximizing your performances and balancing your life.	DSPSR, New Delhi	16 th September' 2007, (One Day)	NO	NA	Report of the proceedings submitted
Prof(Dr.) S.L. Gupta	5 th AIMS International Conference on Mgmt.	IBS, Hyderabad	Dec 27-30, 2007 (Attended One Day)	No	NA	Report of the proceedings submitted.
Prof(Dr.) S.L. Gupta & Ms. Vandana Sharma, Sr. Lecturer	60 th All India Commerce Conference organized by Osmania University	Osmania University, Hyderabad	27 th -29 th Dec' 2007	Yes by Ms. Vandana Sharma, Sr. Lecturer	Role of University Industry Interface	Report of the proceedings submitted.
Mr. Arun Mittal, Lecturer	International Conference on Building World Class Institutions Organized by Desh Bhagat Institute Groups	Desh Bhagat Institute, Campus	4 th – 5 th Sep'2007	Yes	Quality Education in Mgmt. Edu. for Global Competitiveness: An Empirical Study	Report of the proceedings submitted.
Mr. Arun Mittal, Lecturer	FDP on Advances in Marketing	IIM, Kozhikode	3 rd -8 th Dec'2007	NO	NA	Report of the proceedings submitted.
Ms. Vandana Sharma, Sr. Lecturer	8 th International Conference on India Investment Destination.		3 rd -5 th Jan, 2007	Yes	Competitiveness of a firm – The KM perspective	Report of the proceedings submitted.
Mrs. Monica Verma (Asst.Lib)	Workshop on Library Automation and Networking	JNU Campus (Organised by DEL-NET)	22-24 Feb'2007 (Three Days)	No	No	Report of the proceedings submitted.

Dr(Mrs.)Ila Sahay, Sr. Lecturer	Conference on Challenges and Applications of Mathematical Modeling Techniques in Building Science and Technologies	IIT, Roor-kee	7 th - 8 th Feb' 2008	Yes	Applications of Applied Mathematical Modeling Techniques	-
Mrs. Shruti Kohli, Lecturer	International Conferenace of Decision Science and Tech. For Globalisation	IMT. Gha-ziabad	2 nd – 4 th Jan' 2008	Yes	Developing User accept-ability Model of Search Engine	Report of the proceedings submitted.
Mrs. Shruti Kohli, Lecturer	4 th International Conference of Innovations in Information Tech.	Modinat, Jumeirah, DUBAI	18 th - 20 th Nov' 2007	Yes	Evaluation of Interdepen-dency Model based on Behavirioul Analysis of User Search Engine & Advertiser in Online Advertising	Report of the proceedings submitted

Other activities of the organization

Doctoral Research Program at B.I.T.E.C. NOIDA

NOIDA Centre imparts Doctoral Research Program in Management and Computer Science along with other UG & PG Courses. The objective of the program is to prepare for a career in independent investigation and original research so as to enable them to make a significant contribution to knowledge in their profession. The Doctoral program shall ensure that it is not an end in itself, but a means for a fruitful research career. In NOIDA centre, it is ensured that acquisition of fundamental knowledge in the chosen designation and also acquisition of fundamental knowledge in the chosen discipline and also acquisition of in-depth knowledge in the field of research. The program also ensures the use of research tools and develops capability to conduct original research. The testing and appraisal procedure to measure the achievement of these objectives is given prime importance at the centre by the duly constituted expert committee.

The admission to the program is done after multifold security at various levels. At present there are about 40 scholars registered which includes the internal faculty members. In the year 2007, 9 applicants were registered by the centre in the management & computer science discipline under the guidance of

Sl. No.	Name of the Guide	Name of the Candidate	Discipline
1.	Prof. B.P. Joshi	Mrs. Shruti Kohli	IT
2.	Prof (Dr) B.K. Jha	Mr. R.R. Nair	HR
3.	Prof (Dr) S.L.Gupta	Mr. Arun Mittal	Marketing
4.	Prof (Dr) S.L. Gupta	Mr. Hitesh Gupta	Marketing
5.	Dr. Kanhaiya Singh	Mrs. Mary Jacintha	Finance
6.	Dr. Kanhaiya Singh	Mr. K.B. Singh	Finance
7.	Dr. (Mrs.) Asha Prasad	Mr. Aditya Verma	HR
8.	Dr. Tarun Pandeya	Ms. Pooja Tripathi	Marketing & IT
9.	Dr. Tarun Pandeya	Ms. Ruchi Agarwal	Marketing & IT

Animation & Multimedia Department

BIT, NOIDA is proud to say that it is the first institute in the country, which in the year 2004 started a three years degree course in Animation & Multimedia. This created a great demand amongst the students. The institute is fully equipped with all the infrastructural facilities including a studio for recording. Institute's initiative was highly appreciated and commended by University Grants Commission which funded it generously.

1. BIT Animation & Multimedia Department has made a 5 minutes 2D animated song on hand wash for Water Aid, an International NGO working in India on public awareness.
2. The song has been dubbed in eight languages and distributed all over India and in the sub continent.
3. BIT Animation & Multimedia Department has innovated a new method of imparting education through electronics media. The instructions are recorded on CD and DVD and then distributed to the students.
4. A Three member delegation from Odense Technical College, Denmark visited our center in Oct 2007. They were highly impressed with our 2D and 3D animation presentation. They have agreed for a joint collaboration program. A faculty member from the University of Denmark has visited BIT, NOIDA in mid January, 2008.
5. The first batch of 18 students graduated in December 2007 is well placed in the industries. Our students are working in organization like Escotoonz Studio, Beehive, Marwah Studio and 3D Solutions.
6. Our students has also participated in various competitions held in the national university and has won commendable positions.

Deoghar



The Birla Institute of Technology, Extension Center Deoghar is a government of Jharkhand project. It was inaugurated on 2nd of October 2007 by Shri Madhu Koda, Hon. Chief Minister of Jharkhand. The academic activities of the centre commenced from very next day with a total of 150 (boys and girls) students in three disciplines i.e. Computer Science, Electrical & Electronics Engineering, Electronics & Communication Engineering, 50 students in each discipline.

Initially, the classes have been held at the Panchayat training Institute, Jasidih, P.O. Daburgram. The transit hostel accommodation for students is also on the campus of the Panchayat Training Institute, which is about 3 K.M. from the Jasidih Railway Station and on the way to Deoghar.

The center own building is being constructed between Ratanpur and Ramchandrapur village at Jasidih. The plan includes construction of adequate academic space, hostel accommodation for 800 students, sports facilities, a health center and residential facilities for staffs of different categories, in the first phase.

In the current year the Deoghar centre will admit 251 students in five disciplines i.e. Mechanical Engineering, production Engineering, Computer Science & Engineering, Electrical & Electronics Engineering, Electronics & Communication Engineering.

Contact Address:

Birla Institute of Technology Extension Centre, Jasidih, Deoghar - 814 132, Phone: 9304422078 (WLL)

Camp office:

Birla Institute of Technology Extension Centre,
Deoghar, Panchayat Training Institute,
Govt. of Jharkhand, Jasidih, At & P.O. Daburgram 814 132,
Dist. Deoghar, Jharkhand
Phone: 9334654856, Telefax: 06432-237418, e-mail: bitdeoghar@bitmesra.ac.in

Faculty Position

Designation	Professor	Associate Professor	Reader	Lecturer	Associate Lecturer	Scientific Officer	Research Associate	Tutor/Lab.Asst./ Technician
No. of Staffs	1	1	1	4	5	1	1	5

Courses offered

UG Course

- BE - Computer Science & Engineering
- BE - Electrical & Electronics Engineering
- BE- Electronics & Communication Engineering

Two more branches are introduced

- BE - Mechanical Engineering
- BE- Production Engineering

No. of Students Enrolled with the Centre

BE-I Semester

Department	No. of Students
CS	50
EEE	50
ECE	50

Students Activities

1. A three days seminar was organised by the Department of Applied Mathematics on the following areas in which 35 students participated
Laplas transformation
Fourier series and transform
Ordinary differential equation
Vector space
Vector calculus
Matrices
Tensor Analysis
2. An inter department volleyball, badminton and Carom tournament was organised in which students from all branches participated.
3. On the occasion of children's Day, students organised the activities of debate and antakshari.

Library facility:

No. of Books: 962

Delplus Library Software

INTERNATIONAL CENTRES

BCA	88	107	41	--	22		0
BCA PART TIME		9	0		0		0
BE- EC	50	40	18	--	13	--	17
BE – CS		29	6	--	3		8
BE-BIO		12	12	--	11		12
MBA		10	0	7 (5 TH sem)	0		0
EMBA	6	15	0	12 (5 th)	0		0
TOTAL	372	556	266	80	155	14	93

Academic Innovations, Research & Development activities

Courses of BBA revised as per local law, regulations, social and ethical issues.

Seminars/Conferences/Short Term Courses conducted by the Department

1. A 2 days workshop on "Effective Leaders and Decision Makers "was conducted on 25th & 26th February 2007. Dr. R.P. Mohanty gave an interactive presentation and guidelines on the subject.
2. 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.

Publications by Faculty in Journals

1. Agrawal, A.M., and Mishra, A. published an article on Agriculture Marketing Information System – A Mechanism for Socio Economic Development of Nation in Bizcraft (Half-yearly publication of Faculty Management Science- Shri Ram Murti Smarak College of Engg.& Tech., Bareilly, U.P.), Vol.1 No.2 Page No. 21 – 31.
2. Sharma, Vikash, (and Dr. J.S. Roy and Dr. R. Panda) published an article on Rough set Theory – a review of articles in Engineering and Management in Emerald Publication
3. Mohatram, Mohd. authored a book titled "Question and Answer Bank of Electrical Engineering" published by Himani Publishers, New Delhi

Publication by faculty in Seminar Proceedings

1. Kumar, S., and Mohammad, M., Application of Artificial Neural Network in Economic Generation Scheduling of Thermal Power Plants Proceedings of the National Conference on Recent Trends in Information Technology, IBRA College of Technology, Sultanate of Oman, May 17-18, pp 114-117, 2006
2. Prasad, S., Lecturer and Prasad, M. a student of VIIIth semester Biotech student, presented a paper on the subject of "The English Language going Global an analysis of the mutual impact of English on local languages and an amalgamation of local influences on the body of the English language in this age of globalization" held at Sohar University's Applied Linguistics Conference Orientations: Negotiating Literary and Cultural Landscapes.
3. Daniel, H. presented Language Learning Strategies with focus on writing skills at Sohar University. First Applied Linguistics Conference.

Ph.D. Registration

Sl.No.	Name of Research Scholar / Registration No./ Guide	Scholar's Qualification/ Joining Year	Research Topic
1.	Mr. Mohd. Mohatram Reg. No. 70/07 - Guide – Dr. Praveen Dhyani	M.Tech 2008	Development of ANN Models in load flow analysis
2.	Mr. Sanjay Kumar Reg. No. 69/07 - 4824 Guide – Dr. Praveen Dhyani	M.Tech (C.S.) 2008	Application of Level Set Methods
3.	Mr. A. Sadasivam Guide : Dr. K.A. Goyal	M. Phil, PGDBA 2007	Analytical Overview of Customer Behaviour pertaining to mid size cars in Oman
4.	Mrs. Preeti Shrivastava Guide Dr. A.M. Agrawal	B.Sc. MBA	An Empirical study of E-Banking in Oman and customer satisfaction perspective
5.	Mr. Santosh Kumar Reg. No. Guide – Prof. B.P. Joshi	M. Tech 2004	Intelligent Question Answering system
6.	Mrs. Helen Daniel Regn.No. 344/D/FED/IASE/ OU/2006 Guide – Dr. P. Prasad Prof. College of Education Usmania University	M.A. M.Ed 2006	Concept based scholastic achievement.

Student Activities

During the period following students activities were organized

- Our football team participated in beach football during Muscat Festival and finished Runner up.
- Actively participating in the on-going Cricket tournament organized by the Oman Cricket Club.

Others

The first ever graduation ceremony was held on December 2nd, 2007.

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, 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.

Commerce & Management Department

The Department has fairly good facilities to offer BBA, MBA and B.Com. (E-Com) programmes.

Courses offered

The courses offered at Birla Institute of Technology International Centre, Bahrain, are as follows:

Undergraduate Programmes

- 4 year Bachelor of Engineering degree programme (B.E.) in Computer Science
- 3 year Bachelor of Business Administration degree programme (BBA)
- 3 year Bachelor of Science degree programme (B.Sc.) in Information Technology
- 3 year Bachelor of Commerce (E-Commerce) degree programme B.Com.

(E-Commerce) is being offered from academic session 2005-06

Postgraduate Programmes

- 2-year Master of Business Administration degree programme (MBA)

Faculty position

Designation	Professor	Associate Professor /Reader	Lecturer- selection-grade	Senior Lecturer	Lecturer	Associate Lecturer	Total
Number in Position deputed from BIT	2	2	-	3	3	-	10
Local Appointments as University Education Teachers at different levels	-	-	-	-	4	7	11
Total	2	2	-	3	7	7	21

Number of Students enrolled at the Centre

Programme	Programme Level	Semester / Trimester	Total No. of students		
			Boys	Girls	Total
Bachelor of Engineering (BE)	Bachelor Degree	II	15	04	19
		IV	12	02	14
Bachelor of Business Administration (BBA)	Bachelor Degree	II	25	30	55
		IV	26	25	51
		VI	18	20	38
Bachelor of Commerce in E-Commerce (B. Com. E-Com)	Bachelor Degree	II	19	26	45
		IV	12	11	23
		VI	09	5	14
Bachelor of Science in Information Technology (B.Sc. IT)!	Bachelor Degree	I	18	6	24
		II	15	9	24
		III	35	5	40
		IV	26	3	29
		V	27	3	30
		VI	26	8	34
Master of Business Administration (MBA)	Master Degree	III Trim.	09	12	21
		VI Trim.	08	13	21
TOTAL			300	182	482

Seminars / Symposiums / Short Term Courses Attended by faculty members**National**

1. Mr. N. Saravanan and Mrs. N. Shanthi Saravanan participated in a technical seminar on **Oracle Business Intelligence** organized by Oracle Corporation Middle East on 26th March 2007.
2. Prof. T.R. Ranganath, Prof. S.L. Mishra and Prof. Prateek Sharma, attended a seminar on **Developing Education and Training- Universities Inspection Project** organised by the Economic Development Board, Kingdom of Bahrain on 14th May 2007.
3. Prof. T.R. Ranganath, Prof. S.L. Mishra, Prof. Prateek Sharma, Mr. N Sarvanan and Mr. Ruchin Jain attended a workshop on **Quality Assurance and Self Evaluation** organized by Universities Quality Review Project Team of Education reform Project under the aegis of Economic Development Board, Kingdom of Bahrain on 6th June 2007.
4. Mr. N. Saravanan and Mrs. N. Shanthi Saravanan attended a two day workshop on **Content Management Systems and Web Based Applications using Open Source Software** organized by CSI-IEEE-CDAC-RMKEC, Chennai from 10th to 11th August 2007.
5. Mr. N. Saravanan and Mrs. N. Shanthi Saravanan participated in a technical seminar on **Oracle Business Intelligence** organized by Oracle Middle East on 26th March 2008

Infrastructure facilities added during the year 2007-08**New facilities**

Business School: Ground Floor		Area in m²
1.	Reception 4.5 m×8.1 m – 1 No.	36.40
2.	Dining hall 4.5m×11 m – 1 No.	49.50
3.	Seminar Hall 10 m×19.5 m – 1 No.	195.00
4.	Canteen 3 m×5.3 m – 1 No.	15.90
5.	Switch Room 3.2 m×2.4 m – 1 No.	7.68
Sub Total		304.48
Business School: First Floor		
1.	Class Rooms 6.3 m × 8.5 m – 3 Nos.	160.65
2.	Mini Conference Room: 4.7 m× 6 m – 1 No.	28.20
3.	Faculty Rooms 4 m × 4.7 m – 2 Nos.	37.60
4.	Corridor (Total) 1.5 m × 22.4 m	33.60
5.	Toilets: Gents 1.5 m × 1.5 m – 1 No.	2.25
	Ladies 1.5 m × 3.1 m – 1 No	4.65
7.	Small Store 1.5 m × 1.5 m – 1 No.	2.25
Sub Total		269.2
Total Built Area		3779.31

Strengthening of existing facilities

Over 525 books have been added to the library during the period

Ras Al Khaimah, UAE



BITIC commenced its operations under the academic supervision and control of BIT, Ranchi, India in September, 2005. The infrastructure is facilitated by RCAST, a group company of Sudhir Gopi Holdings. Within a short span of two years, BITIC has seen a tremendous growth in terms of student intake, academic results and development of labs & other facilities.

In February, 2007 the center was awarded ISO 9001:2000 certificate by Intertek, an ISO certified body for its academic activities.

Infrastructure Facilities

Existing teaching block:

The existing teaching block is an eight storied leased building. Currently, BITIC has 25 class rooms, one computer lab with 72 computers (networked), One Internet Lab with 32 computers connected with 4 MB leased line for internet, Chemistry lab, Physics lab, Electronics & Electrical labs, Mechanics lab, Two Architecture Drawing labs, Engineering Drawing Lab, Library, offices for Director, Examination in charge, Academic & Registration department, rooms for teaching faculty and administration staff, a Seminar hall, recreation rooms, a canteen and separate prayer rooms for girls and boys. For workshop an area is hired on lease in the industrial area of RAK, UAE.

New Campus

The construction work for the new campus would be starting soon and it is expected that few classes would be started in the new campus from academic session 2008 – 2009.

Courses offered and student strength

Following Programmes are being conducted at BIT RAK Center

S.No.	Programme Name	Year of Commencement
1.	MBA	2005 – 2006
2.	E. MBA	2006 – April

Students Registered in MO – 07

B.Sc. (MLT)

1 st semester	-	31 (07 batch)	
3 rd semester	-	31	
4 th semester	-	31	Total : 93
1 st semester	-	109 (07 batch)	Total : 109
3 rd semester	(Electronics)	- 32	
(06 batch)	(Computer)	- 31	
	(Automobile)	- 23	
	(Manufacturing)	- 19	Total: 105
5 th semester	(Electronics)	- 25	
(05 batch)	(Computer)	- 25	
	(Automobile)	- 19	
	(Manufacturing)	- 20	Total: 89
6 th semester	(Electronics)	- 28	
	(Computer)	- 18	
	(Automobile)	- 22	
	(Manufacturing)	- 16	Total : 84
4G semester	(Electronics)	- 05	
	(Computer)	- 07	
	(Automobile)	- 11	
	(Manufacturing)	- 09	Total : 32
6 th Additional	(Electronics)	01	Total : 01
			420
Grand Total (Diploma + BMLT)			513

Academic achievements, Research & Development activities

Automobile Engineering

Various cut sections of car were assembled and a complete chassis was made for demonstration purpose.

Mr. M. K. Roy of the Department attended 5-days workshop from 6th – 10th September, 2006 on “Automobile Engineering System”. Mr. Roy along with other faculty and staff of the Department conducted Practical Workshops on “Know Your Car Inside Out” for Vth semester Mechanical Engineering students of B.I.T.

Electronics Engineering

Microstrip antenna for wireless communication, patch antenna for Blue tooth etc. were developed and delivered for research work at PCB Lab., University Polytechnic.

Computer Science

Mr. Gholam Mursalin Ansari registered for Ph.D. on the topic "The Mathematical Models and Simulation on the attack and defence of malicious objects in the Computer Network".

A Paper on "Horizontal and Vertical Transmission of Malicious Objects in Computer Network with two time delays and Non-Linear Incidence" has been sent for publication in "Applied Mathematics and Computation" – an International Journal.

Manufacturing Engineering

- i) Mr. T. K. Baug & Mr. Manish Oraon attended two days workshop on "New and Renewable energy sources – Prospect and Challenges" conducted by the Deptt. of Mechanical Engg., B.I.T. on 17th & 18th December, 2007.
- ii) Mr. T.K. Baug, Mr. Manish Roy, Mr. Rakesh and Mr. Manish Oraon worked jointly on project "Development of Wheel Chair with lifting mechanism for boarding in trains for patients and physically handicapped persons".
- iii) Mr Manish Oraon guided VIth semester students to set an idle Lathe machine in working condition.

Physics

Mr. T. K. Parashar registered for Ph.D. in August, 2007 on "Computer Aided Modelling & Simulation of Infrared Photodetector for Non-Telecommunication" under Prof. R. K. Lal, Deptt. of ECE.

Mr. Parashar attended a 3-days Workshop on "Advance Optoelectronics Material & Devices" at Banaras Hindu University (BHU) in December, 2007.

Training & Placement Details

INDUSTRIAL VISITS

1. Usha Martin Industries Ltd., Tatisilwai.
2. Doordarshan Kendra, Ranchi
3. Sushila Automobiles Services, Ranchi
4. NIFFT, Ranchi
5. Schenck Process & Controls Ltd., Tupudana.
6. ALCAST, SIRTDO Industrial Estate, B.I.T.

TRAINING

1. A3.5 months training was arranged for Automobile Engineering, 2004 batch students at TATA MOTORS Ltd., Jamshedpur (Dec.'06 to March'07).
2. Patratu Thermal Power Station, Patratu, Hazaribagh
3. HINDALCO Ltd., Muri.
4. Usha Martin Industries Ltd., Tatisilwai.

INTERACTIVE SESSION

Mr. B. K. Verma, Secretary Institution of Engineers, Ranchi acquainted the students with the procedural formalities for pursuing part-time Degree course through AMIE.

PLACEMENT DETAILS FOR 2004-2007 BATCH

61 students successfully completed their Diploma course in 2007-2008. Twentynine students got jobs through campus interviews & as per information about 15 students have taken admissions in various reputed colleges of the country. Given below is the list of students who have taken up jobs at B.I.T. or in Industries through Campus Interviews:

Company	No. of Students
B.I.T., Mesra, Ranchi	13
Schenek Process India Ltd.	02
Rameshwaram Construction, Ranchi	02
Hindustan Glass Industries	05
Tata Motors, Jamshedpur	05
Reliance Communications, Ranchi	02

Sports & Games

Students showed their excellence in the first ever independent sports of Polytechnic held on 16th & 17th February, 2008 in the University Polytechnic Ground. Fully utilizing the newly developed Grounds for practicing various games and athletic events, students won prizes for Individual events and taken Championship. Overall winner was Electronics Branch. Shri N. C. Agrawal announced a Running Trophy for winning team. Inter hostel Hockey and Badminton tournaments were also organised during 2007-08.

Central Library

The Central Library strives to evolve as 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 Applied Chemistry, Mathematics, Physics, Engineering Mechanics, Architecture, Biotechnology, B.M.I, Civil Engineering, Mechanical Engineering, Computer Science, Information Technology, Electronics Communication Engineering, Electrical/ Electronics Engineering, Hotel Management, Catering Technology, Management, Pharmaceutical Sciences, Polymer Science, Remote Sensing, Space Engg. & Rocketry and Information Science. The Library has a book bank for SC/ST students of the Institute. SC/ST students can borrow books for a complete semester. 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 environments.

Online Journals		Books	
Full Text	6609	General	89299
Abstracts	3521	Book Bank	25234
Total	10130	Total	114533
Print Journals		Book CDs	2503
Indian Journals	79	Project Reports	4079
Foreign Journals	21	Bound Volumes	17787
Total	100	Audio Cassettes	58

CD-ROM Database Search Services

724 IPA (International Pharmaceutical Abstracts)

IEEE (Institute of Electrical/Electronics Engineers)

IMID (Institute of Management International Databases)

Web OPAC (Online Public Access Catalogue)

<http://172.16.3.110:8080/webopac/>

Web-based OPAC for checking online availability and reserving online, remote access to e-resources and databases make the library user friendly.

E-Resources

The Central Library holds a hybrid collection of printed as well electronic/digital resources which include books, journals, e-books, databases (full text and abstract), audio-visuals, CDs/DVDs, floppy's, reports & Theses, case studies, conference proceedings, training manuals, etc.

SERVICES

Reference/Reader's Advisory Services/Help Desk

Reference Service is to all the members and extended to visitors for short-term period. Recently, a Help Desk has been created for assisting the library members.

Reading Rooms

The common reading facility has been provided.

Newspaper Reading

Regional, National Newspapers and Magazines & allied publications are provided in the Newspaper section.

Lending

Enrolled members are lent books in his/her name as indicated below:

Description	Books	Loan Period
Teaching Faculty	08	One Month
Non Teaching Staff	04	One Month
Under Graduate/Post Graduate students	05	15 Days
Research Scholars	02	One Month
Faculty Staff for Extension Center Lalpur/Polytechnic)	04	One Month
Non Teaching Staff for Center Lalpur/Polytechnic)	02	One Month
Research Scholars for Extension Center Lalpur/Polytechnic)	01	One Month
Books from Text Book Section for all Categories	01	Over-night
Book Bank for SC/ST	10	Six Months
Book Bank for OBC	05	Six Months

Reprographic Service

Photocopying of documents in the Library is provided for official and other works.

Other Library Information services

Book bank
Book Reservation
Referral and New arrivals
Over-night issue
Inter library loan (ILL) and Bibliographic service
Current Awareness Service
Selective Dissemination of Information - SDI

DELNET

Off campus service through telephone, fax, e-mail, and SMS

Consortia Membership

The Library is a member of three consortia viz. 1. AICTE-INDEST 2. UGC - INFONET 3. DELNET for union catalogues.

Timings

Reference/Visiting the Library

Monday – Friday	8.00 AM to 8.00 PM
Saturday s	8.00 AM to 3.00 PM
Sundays	9.00 AM to 1.00 PM

Issue/Return/Lending

Monday – Friday	9.00 AM to 5.00 PM
Saturday	9.00 AM to 1.00 PM

Book Issue/Return

Borrowed books may be recalled at any time. Reminders will be sent to the borrower accordingly.

Book Renewal

Books can be renewed, if there is no reservation against the particular book.

Fine/Overdue Charges

Books from Textbook section, a fine of Rs 10 per day per book shall be charged after the due date. For general books Rs 1 will be imposed upto one week and Rs.10 will be levied on the same thereafter.

Library Location Index

The library is housed in main building of the Institute. The location of services/ resources in the Library is indicated below

Name of the resource, service, section	Location
Book Acquisition Section	Ground floor
Book Bank	Second floor
Book stacks (All disciplines)	First floor/Second floor
CD ROM workstations	Ground floor
Circulation counter /section	Ground floor
Back Volume Journals	Ground floor
Journals (Bound volumes)	Ground floor
Journals Section/Current Journals Display	Ground floor
Librarian's Office	Ground floor
Newspapers and non Technical Material	Ground floor
OPAC (Online Public Access catalogue)	GF/FF/SF
Pamphlets Section (Standards, Patents)	Ground floor

Training & Placement Division

The Training & Placement Division of BIT, Mesra, Ranchi 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 being 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 2007-08 is as under:

Campus Recruitment Programme:

This year the Campus Recruitment Programme was conducted in 3 Phases. Phase I was held late April at the NOIDA Extension Centre 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 initiated end-July and this was followed by a similar programme organized at the Extension Centre at Lalpur for the BCA & BBA students. For the first time a campus placement activity was conducted at the Kolkata campus.

A total of 1263 offers were generated for the BIT students by a total of 88 organizations representing diverse sectors. This encompasses all students of BE, ME, M.Tech. , MCA, M.Sc., Pharmacy, Architecture, Management & HMCT from all campuses of BIT. As many as 180 students have received more than one offer.

Competency Development Programme:

In the third 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 Jaipur, Noida & 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.

Student workshops conducted in collaboration with Industry:

- I. Wipro Power Talk on Software Project Management (Wipro)
- II. Know your Automobile – inside out – A workshop for the Mechanical & Production Engineering students in collaboration with the University Polytechnic and supported by Tata Motors.
- III. A 3-day workshop on Software Engineering was organized for all TCS recruits on campus. Pre workshop sessions were conducted by the faculty members from the CS Department.
- IV. A 2-day workshop on Data & File Structures was organised for the 6th Semester students.
- V. A 1-day workshop on Creative Thinking titled 'Out of the Box' was conducted with support from Mindtree Consulting, Bangalore.
- VI. A 1-day workshop on Interview Giving Skills was organised with trainers from Aricent, Gurgaon.

- VII. A 2-day workshop on Object Oriented Programme was conducted for the pre-final year students.
- VIII. General Briefing conducted by T & P Division for all eligible students for campus placement 2008.
- IX. Workshop on GD and Interview giving skills by Training and Placement Cell.
- X. A workshop on Data Warehousing Business Intelligence was organised with facilitators from TCS, Kolkata.

Faculty Workshops

- I. 2 hours mini workshop on Software Project Management for the CS faculty was organised under the TCS Academia Interface Programme.(TCS)
- II. 1 day workshop on Oracle Applications was organised under the TCS Academia Interface Programme.
- III. 2 Faculty members from CS were nominated for attending an 11 days Faculty Enablement Programme at Bhubaneswar on J2EE. This is under the Campus Connect Agreement signed with Infosys.

Participation in Conclaves & conferences

The Additional Registrar (CPD) participated in the following Conclaves/ Conferences organised by different organizations:

- I. Conclave organised by Wipro for Heads of Training & Placement of select Institutes.
- II. Defining Dialogues – an Industry academic Discussion Forum organised by Cognizant Technology Solutions.
- III. 'Sparsh' 2007-08 organised by TCS.
- IV. Invited to give an Institute presentation at Mphasis EDS at Chennai on the basis of which the Institute was shortlisted for signing of the College Connect agreement.
- V. Infosys Campus Connect Regional meet at Bhubaneswar.

Customized Online Portal:

In-house student interface portal was launched on the BIT website which provides multiple resources like online notifications, Registration for the company, Online Profile updation etc. Online test software along with a question bank of about a 1000 questions (multiple choice type) has been installed in the computer labs of the Jaipur & Kolkata campuses.

Placement Briefings coupled with mock test and GD's was conducted at the Kolkata, Noida, Lalpur and Jaipur Centres. A Placement Simulation Exercise was conducted with the help of the passing out batch for the entire next batch students. A series of Aptitude tests were conducted for the pre-final year batch.

Employability Skills Assessment (HR & Generic) was conducted for the MBA Batch and the detailed report was submitted to higher management as well as the concerned department. A separate exercise was conducted for the first PGPMI Batch.

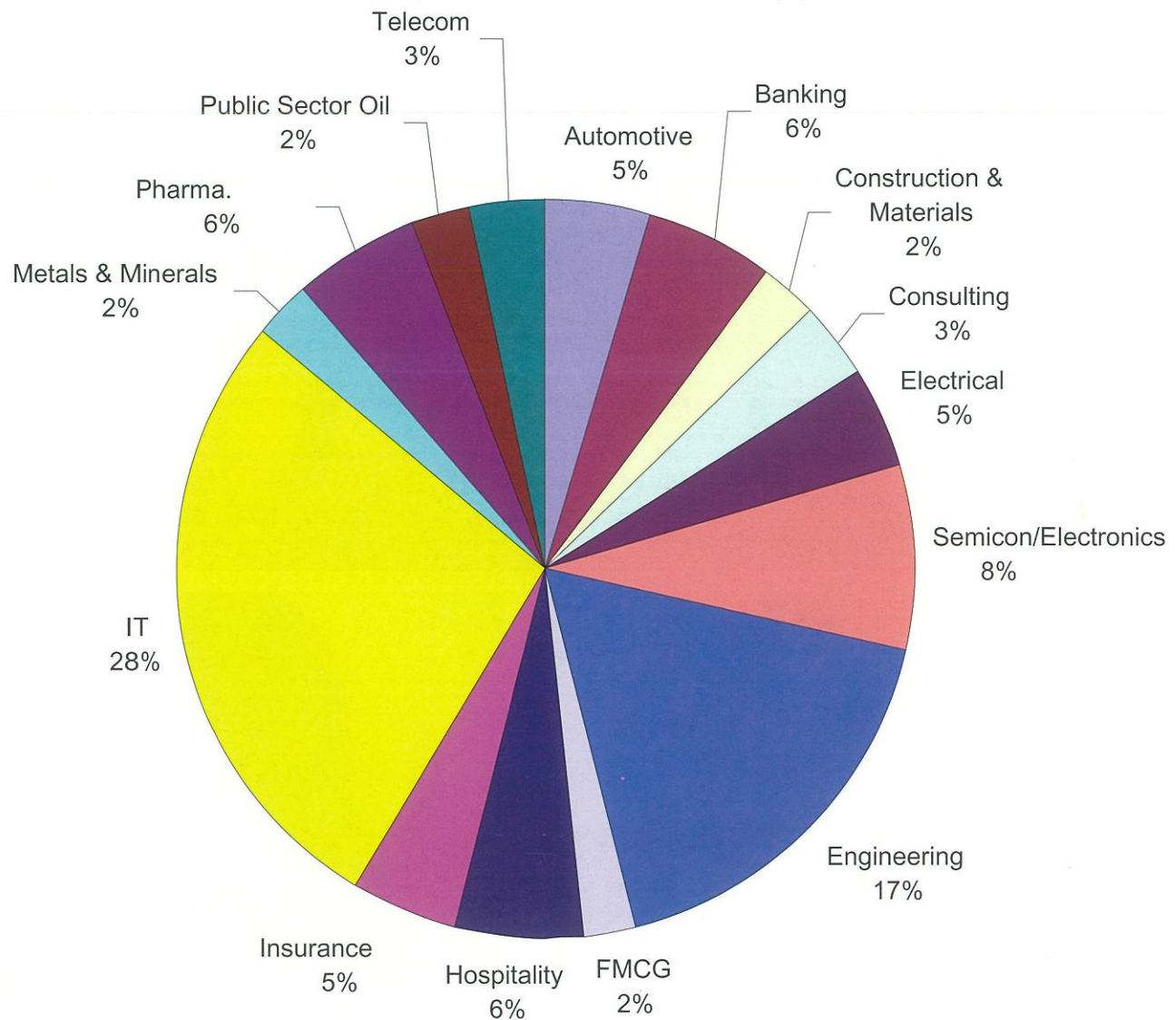
Company-wise Placements 2007-08(till date)

CAMPUS PLACEMENTS 2007-08			
Sr.	Company Name (in alphabetic order)	Offers	Sector
1	ACC	11	Construction Materials
2	Accenture	48	IT Services
3	Airvana	2	Electronics
4	Amdocs	28	IT Services
5	Applied Materials	2	Electronics
6	Areva	0	Electrical
7	Aricent	24	IT Services
8	Avaya Global Connect	4	Electronics
9	Avtec	5	Engineering
10	Axis bank	2	Banking
11	Beehives	1	IT Services
12	BPCL	6	Public Sector Oil
13	Britannia	2	FMCG
14	CeaseFire	2	Manufacturing
15	Cipla	6	Pharmaceutical
16	Crompton Greaves	2	Engineering
17	CTS	31	IT Services
18	Cummins	3	Engineering
19	Dabur	1	Pharmaceutical
20	Deloitte	19	Consulting
21	Dr. Reddys	5	Pharmaceutical
22	Eicher PPO	2	Automotive
23	Essar	2	Engineering
24	Evalueserve	5	IT Services
25	Fiserv	11	IT Services
26	Fluor Daniel	3	Engineering & Construction
27	Freescale	3	Semiconductor

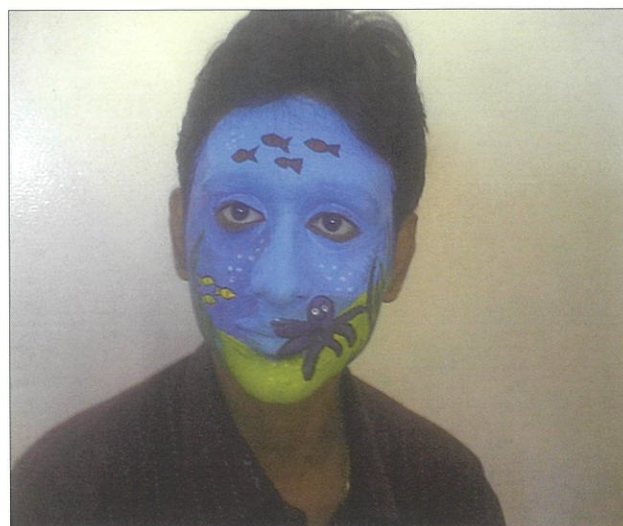
28	GE Money	2	Banking
29	Globallogic	10	IT Services
30	Godrej	1	FMCG
31	Goldman Sachs	6	Consulting
32	HCL Tech.	4	IT Services
33	HDFC Life	3	Insurance
34	HP	6	IT Services
35	IBM	48	IT Services
36	ICICI Bank	49	Banking
37	ICICI Lombard	2	Insurance
38	ICICI Prudential	28	Insurance
39	IDBI	16	Banking
40	Idea Cellular	7	Telecom
41	Indian Army	Awaited	
42	Infogain	3	IT Services
43	Infosys	19	IT Services
44	Intel	1	Semiconductors
45	IOCL	10	Public Sector Oil
46	IRCON	6	Infrastructure Construction
47	John Deere	3	Automotive
48	JSW Steel	2	Metals & Minerals
49	Jusco	5	Engineering
50	Keane	5	IT Services
51	L & T	18	Engineering
52	L&T ECC	7	Construction
53	LG Electronics	4	Electronics
54	Maruti Udyog	14	Public Sector Auto
55	Microsoft	3	IT Services
56	NEI	3	Engineering
57	Oracle	15	IT Services
58	Pfizer	9	Pharmaceutical

59	PWC	9	Consulting
60	Ranbaxy	4	Pharmaceutical
61	Reliance Money	7	Banking
62	Reliance Energy	51	Power
63	Reliance Telecom	10	Telecom
64	Samsung	16	IT Services
65	Samtel	4	Electronics
66	Sapient	7	IT Services
67	Satyam	54	IT Services
68	Schenk Processes	1	Engineering
69	Schneider	9	Electrical Products
70	ST Microelectronics	4	Semiconductors
71	Syntel	12	IT Services
72	Sysbiz	7	IT Services
73	Tata AIG	2	Insurance
74	Tata Motors	26	Automotive
75	Tata Power	8	Power
76	Tata Steel	5	Metals & Minerals
77	Tata Tele Services	3	Telecom
78	TCS	349	IT Services
79	Tejas Networks	6	Electronics
80	Telcon	3	Engineering
81	Timken	3	Engineering
82	Wipro	115	IT Services
83	Devigarh Resorts	04	Hospitality sector
84	Barbeque Nation	10	Hospitality sector
85	Ummaid Bhawan Palace	2	Hospitality sector
86	HSBC	1	Hospitality sector
87	Country Inn	2	Hospitality sector
88	Metalsa	Result Awaited	Auto Components
	Total Offers	1263	

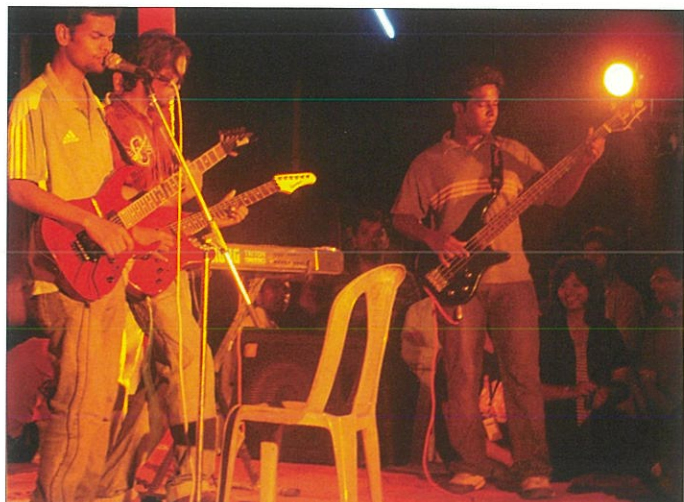
Visiting Organisations 2007 -08 (Sector -wise Break -up)



Student's Activities







The cultural activities in the Institute started with a cultural evening on the occasion of BIT convocation held in May, 07.

Two new clubs were created in the beginning of the year. The first was Health & Fitness club (OLYMPIA) to generate awareness amongst the students about fitness and the second, was Ecology & Environment to make students aware about ecological and environmental problems.

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:

MUSIC CLUB

1. BIT IDOL competition was organized in October, 07.
2. Participated in SPRING FEST- 08 at IIT, Kharagpur and following prizes were won in different categories:
 - A. SARGAM (EASTERN) I Prize won by 16 members team from BIT
 - B. WESTERN SOLO III Prize won by Amal Kiran
 - C. EASTERN SOLO IV & VI Prize won by Devo Tana & Veena
 - D. ANTAKSHRI II Prize won by Archit, Anumita, Inderpal
 - E. EASTERN INSTRUMENT V Prize won by Arka

DANCE CLUB

1. RAAZMAATAZ- dance competition was organized on 9th October, 2007 including both SOLO and GROUP categories to select the best student dancers of BIT. The professional dancers were invited as judges.
2. DANDIYA NITE- Traditional Dandiya dance was performed in collaboration with LEO club of BIT in Golden Jubilee Hall.

IACGS CLUB

1. TECHTODAY magazine publication continued.
2. Workshop on Hacking & Interaction Program on 28th August, 07.
3. QUEST FOR THE BEST – technical event in January, 08.

NSS

1. Lecture classes on weekly basis covering Indian philosophy/ culture, drinking water problems, AIDS awareness and communal harmony etc.
2. Weekly projects for teaching science, mathematics and computer subjects in the nearby village schools.
3. Literary and a general education program for BIT hostels' mess workers.

4. Arranging Yoga and Meditation programs for BIT students.
5. Prabhat Pheri on 15th August and 26th January.
6. Providing NSS student members as volunteers for various cultural activities at the BIT campus throughout the year.

LEO CLUB

1. With the help of Lions International Club Ranchi, a very interesting program- GD WITH VISIONARIES- was organized on 7th September, 07 in which Mr Sayeed Ahmad Ansari, Managing Director Abdul Razaq Memorial Hospital Appolo Group, Erba-Ranchi and Dr. A. A. Khan, Honorable Vice Chancellor Ranchi University were invited as the Visionaries.
2. With the help of Red Cross Society, a blood donation camp was organized at Bit Dispensary on 2nd October, 07 where more than 100 BIT students donated their blood.
3. DEEPOTSAV was organized on Diwali day for the BIT campus people.

INDIAN PHARMACEUTICAL ASSOCIATION (IPA)

- NEC –07 event was organized on 11th October, 07 to illustrate Pharma Vision 2020: Role of pharmacists in clinical research.

INSTITUTION OF ENGINEERING & TECHNOLOGY (IET)

- DRISHTANT-2008: a gala fest was organized on 7-10 February, 08 including both Formal and Informal events.
- Formals: like paper presentation, software presentation, hardware presentation, Junkyard Warz, Modelling of given system using DSP kits etc.
- Informals: Aptitude Test, Google it out, Press Conference and Technical Cross Words and Jumbles etc.

STUDENTS SOCIETY OF ARCHITECTURE (SSA)

- REFLECTIONS- The students of Architecture Department celebrated this event on 7th November, 07 having Rangoli, Graphiti, Furniture Designing, Cartooning, Poster Making, Product Design, Collage, Body Art and Garden Designing etc.

INSTITUTION OF ENGINEERS (INDIA)

(students chapter BIT, Mesra)

COLOSSIUM-07 & ENGINEERS DAY was celebrated from 25th–29th September, 07.

HEALTH & FITNESS CLUB- OLYMPIA

- A. CLUB FEST
- B. SPORTS QUIZ
- C. Mr. BIT Competition-Body Builders of national fame were invited as judges.

FINE ART SOCIETY and HAC CLUB

Both the clubs put their most awaited exhibitions, separately, during BITOTSAV-08.

CIVIL ENGINEERING SOCIETY

Arranged GUEST LECTURES on bridge designing and a WOKSHOP on Auto CAD.

Besides the above mentioned individual club/ society activities, the some worth mentioning annual events organized by the clubs collectively or individually, almost regularly at the campus, are as follows:

- B. FUSION – where almost all the technical clubs/ societies of the Institute, collectively, organize an Intro- University technical fest.
- C. SPANDAN: where dramas and Nukkad Nataks are organized generally by DRAMATIC SOCIETY of the Institute.
- D. BITOTSAV: The most famous annual festival of BIT Mesra. This time BITOTSAV-8 was celebrated from 14th – 17th February, 2008. This time, the main attraction was a well organized KAVI SAMMELAN where seven poets of national/ international fame took part.
- E. SAMAGAM: this is an annual gala fest of the Department of Management of the Institute for B-School students and this year it was celebrated from 11th – 12th April, 2008.

ANVESHAN

First time, EAST ZONE AIU students research convention was organized at BIT Mesra campus from 9th – 11th April, 2008 where many talented students with innovative ideas / projects from several East Zone Universities took active participation.

OUT-OF-CAMPUS Activities

As usual, this year also many students of BIT Mesra took active participation in SPRING FEST – 08 of IIT KHARAGPUR, MECHATHLON - 2K7 of ISM DHANBAD and AIRTELJINK- 08 & PRANAV- 08 annual fest of NIFFT RANCHI and won several prizes in different categories.

ANNEXURES

Annexure I

GENERAL COUNCIL

Founder Member

Shri G. P Birla	-	Chairman
Shri C. K. Birla	-	Founder Member
Shri S. L. Bhatler	-	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 Yeuif 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
Shri Jajoria, 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. A. K. Basu I. A. S	-	Commissioner – cum- Secretary Deptt. of Science & Technology, Government of Jharkhand
Sri J.B. Tubid I. A.S	-	Commissioner – Cum- Secretary, Higher Education Government of Jharkhand
Sri Vishnu Kumar 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. A.K. Srivatava	-	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
Dr. P.K. Barhai	-	Vice- Chancellor, B.I.T., Mesra

Annexure – IV

BUILDING & WORKS COMMITTEE

Chairman

Vice- Chancellor, B.I.T., Mesra - Dr. 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 - Dr. K.V. Krishnamurthy

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. Srivastavs

Director of Higher Education

Government of Jharkhand, (Ex. Offico)

Dr. S. Kumar	Prof. S. P. Bhatnagar	Dr. A. K Chatterjee
Dr. Ashok Mishra	Dr. A. N. Sinha	Prof. B. P. Roy
Dr. J. K. Prasad	Dr. R. C. Prasad	Dr. P. K. Barhai
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	Dr. 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 : Dr. K. V. Krishnamurthy

Annexure – VI

DEPARTMENT'S HEAD/ INCHARGE AND EXECUTIVES

Vice Chancellor	: Dr. P. K. Barhai
Treasurer	: Shri S. S. Jajodia
Registrar	: Dr. K.V. Krishnamurthy

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. Gopal Pathak
Finance	: Dr. P. C. Joshi
Academic Infrastructure	: Dr. (Mrs.) Usha Jha
Doctoral Research	: Dr. Ashok Misra
Development Programme	: Dr.(Mrs.) M. Mulherjee

ASSOCIATE DEANS

Woman Affair	: Mrs. S. G. Panpalia
Boys Affairs	: Dr. A. K. Sinha

DEPARTMENT'S HEAD / IN CHARGE

Architecture	: Dr. Ajay Khare
Applied Chemistry	: Dr.(Mrs) Usha Jha
Applied Mathematics	: Dr. N. C. Mahanthi
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. Suresh Kumar
Electrical & Electronics Engineering	: Dr. B. M. Karan
Environmental Engineering & Science	: Dr. Gopal Pathak
Hotel Management & Catering Technology	: Mr. Atul Gupta
Information Science	: Dr. N. C. Mahanthi
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(Admn.)	: Dr. A. K. Jha
Additional Registrar(Fin.)	: Shri O. P. Bhagaria
Additional Registrar (Career Planning & Development Programme)	: Shri B. B. Pant
Controller of Examination	: Dr. S. K. Jain
Comptroller	: Shri M. L. Verma
Chief Accountant	: Shri G. S. Sharma
Library	: Dr. V. Sreenivasulu
Chief Medical Officer	: Dr. Arjun Prasad Singh
Cultural Coordinator	: Dr. Ram Pal Singh

ANNEXURE- VII
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. Pratyoo 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. P. Ghosh | 2. Dr. K. Mukhopadhyay |
| 3. Dr. (Ms) Usha Jha | 4. Dr. Pratyoo Shukla |
| 5. Dr. R. T. Goswami | |

Panel of Experts from outside of the Institute

- | | |
|--|--|
| 1. Prof. T. Ghosh, IIT, Delhi | 2. Dr. M. P. Singh, VC, Vinoba Bhave University |
| 3. Dr. T. Madhan Mohan, New Delhi | 4. Dr. Debbate Das, IIT, Kharagpur |
| 5. Dr. D. J. Chattopadhyay, Calcutta University | 6. Dr. R. Srivastava, CDRI Lucknow |
| 7. Mr. G. K. Sharma, GM, Ranbaxy Pvt. Ltd.
Himachal Pradesh | 8. Mr. Rajesh Soni, Director, Genom Biotech-
Pvt. Ltd. Mumbai |

Department of Pharmacy**Under Graduate Programme****Chairman - Dr. D. Sasmal, Head of the Department**

- | | | |
|-----------|----------------------------|--------------------------|
| Members - | 1. Dr. G. M. Panpalia | 2. Prof. S. P. Bhatnagar |
| | 3. Dr. B. N. Sinha | 4. Mrs. S. M. Verma |
| | 5. Dr. (Mrs.) M. Mukherjee | 6. Dr. (Mrs.) Usha Jha |
| | 7. Prof. C. M. Prasad | 8. Dr. P. R. P. Verma |

Panel of Experts from outside of the Institute

- | | |
|---|---|
| 1. Dr. Taushif Monif, Associate
Director (Clinical Pharmacology &
Pharmacokinetics) Ranbaxy, Research
Laboratories Udyod Vihar, Plot No. 20,
Sector – 18, Gurgaon -122001 | 2. Dr. S. K. Kuldarni, Professor, University
College of Pharm. Sc., Punjab University
Chandigarh. |
|---|---|

Post Graduate Programme**Chairman - Dr. D. Sasmal, Head of the Department**

- | | | |
|-----------|-----------------------|--------------------------|
| Members - | 1. Dr. G. M. Panpalia | 2. Prof. S. P. Bhatnagar |
| | 3. Dr. B. N. Sinha | 4. Mrs. S. Ganguly |
| | 5. Dr. N. C. Mohanti | 6. Dr. Mohan Verma |
| | 7. Prof. C. M. Prasad | 8. Dr. P. R. P. Verma |

Panel of Experts from outside of the Institute

- | | |
|---|---|
| 1. Dr. P. Gundu Rao, (Director) DIVIS
Laboratory R & D Centre, C-26, Santha
Nagar Hyderabad 500018 (India) | 2. Dr. S. J. Surya Kumar, Assistant Director
(Formulation) Lupin (Ltd.) 46A/47A, Nande
Village Mulshi Taluka-PUNE-2 |
| 3. Dr. Taushif Monif, Associate
Director (Clinical Pharmacology &
Pharmacokinetics) Ranbaxy, Research
Laboratories Udyod Vihar, Plot No. 20,
Sector – 18, Gurgaon -122001 | 4. Dr. Roop K. Khar, Professor, Hamdard
College Pharmacy, Jamia Hamdard, Delhi |

- | | |
|---|--|
| 5. Dr. S. Y. Gabhe, Principal & Professor C. V. Shah College of Pharmacy SNDT Women's University Santacruz, Mumbai – 49 | 6. Dr. C. K. Kokate, Vice Chancellor Kakatiya University Warangal (A.P.) |
| 7. Dr. P. G. Yeole, (Principal) Institute of Pharm. Education & Research, Baraon, Wardha - 442001 | 8. Dr. S. K. Kulkarni, Professor, University College of Pharm. Sc., Punjab University, Chandigarh. |

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

U. G. Programme

Chairman - Dr. P. K. Barhai, Head of the Department

- Members -
- | | |
|----------------------------|----------------------|
| 1. Dr. A. K. Shrivastava | 2. Dr. J. T. Andrews |
| 3. Dr. S. K. Sinha | 4. Dr. N. C. Mahanti |
| 5. Dr. (Mrs.) M. Mukherjee | 6. Dr. D. Jairath |
| 7. Dr. G. G. Sarkar | |

Panel of Experts from outside of the Institute

- | | |
|---|---|
| 1. Prof. Subhandu Kr. Ghatak, Head, Physics & Metrology IIT Kharagpur | 2. Dr. B. K. Chakraborty
NIFFT, Ranchi |
| 3. Dr. T. K. Dey, IIT, Kharagpur | 4. Dr. P. S. Gupta
Indian School of Mines, Dhanbad |

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**Chairman - Dr. G. Sahoo, Head of the Department**

- Members -
- | | |
|----------------------|--------------------------|
| 1. Mr. A. Mustafi | 2. Prof. S. Dutta |
| 3. Mr. P. K. Sharma | 4. Mrs. Aruna Jain |
| 5. Dr. N. C. Mahanti | 6. Prof. R. Sukesh Kumar |

Panel of Experts from outside of the Institute

- | | |
|--|--|
| 1. Dr. C. Majumdar
Jadavpur University, Kolkata | 2. Dr. Abhijit Kar, Jadavpur University, Kolkata |
| 3. Dr. A. Mishra, NIT, Jamshedpur | 4. Dr. S. K. Jena, NIT Rourkela |
| 5. Dr. C. R. Tripathy, UCE, Burla, Sambalpur | |

Department of Electrical & Electronics Engineering**Chairman - Dr. B.M. Karan**

- Members -
- | | |
|------------------------------------|--------------------------------|
| 1. Dr. B. M. Karan | 2. 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. (Computer Sc. & Engg.) | 10. H. O. D. (Electr. & Comm.) |

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, Kharapur | 4. Mr. N. Neogi, GM, RDCIS, Ranchi |

Department of Electronics & Communication Engineering**Chairman - Prof. R. Sukesh Kumar, Head of the Department**

- Members -
- | | |
|---------------------|------------------|
| 1. Prof. S. C. Goel | 2. Dr. N. Gupta |
| 3. Dr. D. Pal | 4. Dr. J. S. Roy |

5. Dr. S. K. Ghorai

6. Prof. S. S. Sonanki

7. Dr. P. K. Barhai

8. Prof. M. Puri

9. Prof. D. Bhagat

Panel of Experts from outside of the Institute

1. Dr. G. Panda

2. Dr. P. C. Rakshit Calcutta University

R. E. C. Rourkela

3. Dr. Ajay Chakraborty

IIT, Kharapur

Department of Mechanical Engineering

Chairman - Dr. Ashok Mishra, Head of the Department

Members -

1. Dr. A. K. Chatterjee

2. Dr. A. Kumar

3. Mr. D. B. Lata

4. Prof. P. K. Choudhary

5. Dr. A. N. Sinha

6. Dr. S. Kumar

Panel of Experts from outside of the Institute

1. Sri A. P. Mishra

2. Dr. B. N. Prasad

GM Larsen & Tourbo,

NIT, Jamshedpur

Kansbanal

Department of Management

Chairman - Dr. S. K. Bose, Head of the Department

Members -

1. Prof. J. K. Prasad

2. Mr. A. R. Srivastava

3. Dr. S. Shivani

Panel of Experts from outside of the Institute

1. Prof. B. B. Khanna

2. Prof. J. V. Prabhakara Rao

IGNOU, Delhi

Andhra University

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

2. Prof. N. Bhatnagar

IIT, Kharagpur

IIT, Delhi

3. Prof. D. D. Kale, University Dept. of Chemical
Technology, Mumbai

Members - 1. Dr. B. K. Singh 2. Prof. Vinay Sharma
 3. Dr. J. Prasad 4. Dr. Ashok Mishra

1. Dr. Anjani Kumar NIT, Jamshedpur	2. Dr. A. K. Jha IT BHU, Varanasi
3. Dr. B. N. Lahiri Jadavpur University, Kolkata	4. Dr. Raghuvir Kumar MNNIT, Allahabad
5. Dr. K. S. Bhat R & D SAIL, Ranchi	

Members - 1. Dr. A. K. Singh 2. Mrs. R. N. K. Sharma
3. Dr. Gopal Pathak 4. Dr. P. K. Barhaji

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2. Dr. P. L. N. Raju
IIRS, Dehradun
3. Dr. I. V. Murli Krishna
JNT University, Hyderabad
Bharathidasan Univ.
4. Dr. S. M. Ramaswami
Tamilnadu

Members -

1. Dr. P. C. Joshi	2. Dr. Mohan Verma
3. Dr. J. K. Prasad	4. Mr. P. K. Dash
5. Dr. S. Kumar	6. Dr. M. Mukherjee

1. Dr. A. K. Ghosh, Dept. of Aerospace Engg.
IIT Kharagpur
2. Dr. N. G. R. Iyengar
Dept. of Aerpc Engg. IIT Kharagpur
3. Shri A. K. Chakrabarti, Dept. of Aerospace
Engg. K – 15, DRDL, Hyderabad
4. Shri S. C. Ghosh
Aerospace Engg. LPSC, Trivandrum

Members -

1. Mr. N. R. Mandal	2. Mr. S. P. Bhattacharya
3. Dr. M. S. Nathawat	4. Dr. A. K. Sinha

Panel of Experts from outside of the Institute

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|---|---|
| 1. Prof. S. Chakraborty
Professor Jadavpur University, Kolkata | 2. Dr. S. Singh Assoc.
Professor Integral University Lucknow |
| 3. Dr. U. K. Banerjee
Professor IIT Kharagpur | 4. Mr. A. Kumar, Arch En Design Centre
Lucknow (for UG only) |
| 5. Ar. A. S. Lal, (For UG Only)
Alley and Associates Kolkata | |

Department of Information Science

Chairman - Dr. N. C. Mohanti, Head of the Department

- Members -
- | | |
|----------------------|--------------------|
| 1. Dr. Bhaskar Karn | 2. Dr. P. K. David |
| 3. Prof. H. K. Singh | |

Panel of Experts from outside of the Institute

- | | |
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| 1. Prof. A. Kar,
Jadavpur University, Kolkata | 2. Prof. A. Mishra
NIT, Jamshedpur |
|--|---------------------------------------|

Department of Hotel Management & Catering Technology

Chairman - Head of the Dept.

- Members -
- | | |
|----------------------|----------------------|
| 1. Mr. Atul Gupta | 2. Mr. Ashish Dahiya |
| 3. Mr. Roshan Prasad | |

Panel of Experts from outside of the Institute

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|--|--|
| 1. Prof. R. K. Saxena
Principal, Institute of
Hotel Management, Mumbai | 2. Dr. B. K. Chakraborty
Ex. Principal, Institute of Hotel
Management, Patna |
|--|--|

Department of Biomedical Instrumentation

Chairman - Dr. B. N. Das

- Members -
- | | |
|--------------------|---------------------|
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| 3. Mr. S. Kumar | 4. Dr. S. K. Ghorai |
| 5. Dr. B. N. Sinha | 6. Dr. D. Pal |

Panel of Experts from outside of the Institute

- | | |
|---|---------------------------------------|
| 1. Dr. H. P. Narain
RMCH, Ranchi | 2. Dr. Anil Mishra
BMBHRC, Kolkata |
| 3. Dr. D. N. Tibarewala
RMCH, Ranchi | 4. Dr. R. K. Jha
RMCH, Ranchi |
| 5. Dr. A. K. Ray
BHU, Varanasi | |

Annexure – VIII

IMPORTANT TELEPHONE NUMBERS

Sl. No.	Name	Department	Phone No.	Fax
1.	Dr. P. K. Barhai	Vice Chancellor	2275402	2275401
2.	Dr. K. V. Krishnamurthy	Registrar	2276052	
3.	Dr. Ashok Mishra	Dean Doctoral Res.	2275924	
4.	Prof. Sukesh Kumar	Electronics & Comm.	2276185	
5.	Dr. S. Kumar	Production Engg.	2275044	
6.	Dr. A. Chatterjee	Space & Rocketry	2275983 2276224	
7.	Dr. P. C. Joshi	Dean (Finance)	2276290	
8.	Dr. P. K. Barhai	Applied Physics	2275522	
9.	Mr. B. B. Pant	Training Placement	2275566	
10.	Prof K. V. Krishnamurthy	Civil Engineering	2276502	
11.	Prof. A. K. Ray	Applied Mechanics	2276182	
12.	Dr. N. C. Mahanthi	Applied Mathematics	2276183	
13.	Dr.(Mrs). M. Mukherjee	Polymer Engineering	2276053	
14.	Dr. M. S. Nathawat	Remote Sensing	2276003	
15.	Dr. D. Sasmal	Pharmaceutical Sciences Dean Academic Coordination	2276247 2275872	
16.	Dr. S. K. Jain	Controller of Examination	2275138	
17.	Prof. C. M. Prasad	Dean(Under-Graduate)	2275872	
18.	Dr. A. K. Chatterjee	Dean(Faculty Development)	2275983	
19.	Mr. D. K. Jain	University Polytechnic	2276008	
20.	Mr. D. Jha	Purchase Executive	2276501	
21.	Dr. Gopal Pathak	Dean (Faculty Development)	2276587	
22.	Dr. A. K. Jha	Add. Registrar(Admn.)	2275351	
23.	Mr. M. L. Varma	Comptroller	2275808	
24.	Mr. G. S. Sharma	Chief Accountant	2275927	
25.	Dr. Arjun Pprasad	Chief Medical Officer	2276009	
26.	Mr. K.V. Yadav	Chief Security Office	09431326696	

27.	Dr. A. S. Vidyarthi	Biotechnology	2276223 2276590	
28.	Dr. Ajay Khare	Architecture	2275093	
29.	Dr. G. Sahoo	Computer Science	2276185	
30.	Dr. D. Jairath	Dean(Admission)	2275868 2276007	
31.	Dr.(Mrs.) Usha Jha	Applied Chemistry	2275636	
32.	Prof. S. Sengupta	Advisor	2275051	
33.	Prof. P.P. Singh	Advisor	2276431	
34.	Dr. Mohan Verma	Dean(Post Graduate)		
35.	B. I. T. Exchange		2275444,2275896,2276267 (INPCO)2276492/93/94/95/98/99	
36.	VIP Guest House		2275213	
37.	Chairman Bungalow		2275214	
38.	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,	
39.	I. G. H		2276210	
40.	Off Campus Centre:			
41.	Ranchi (Lalpur)		(0651)2531679,2531817	
42.	Kolkata		(033)55256728,24414542	
43.	Jaipur		(0141)2751178,2751567	
44.	Allahabad		(0532)2687099	
45.	Noida		(0120)2553661-2	
46.	Patna		(0612)2223538,2223545,3200853	
47.	Bahrain		(00973)17690025,17691506	
48.	Muscut		(00968)24449196	
49.	U. A. E		(+971)504862900,(+971)72272203	

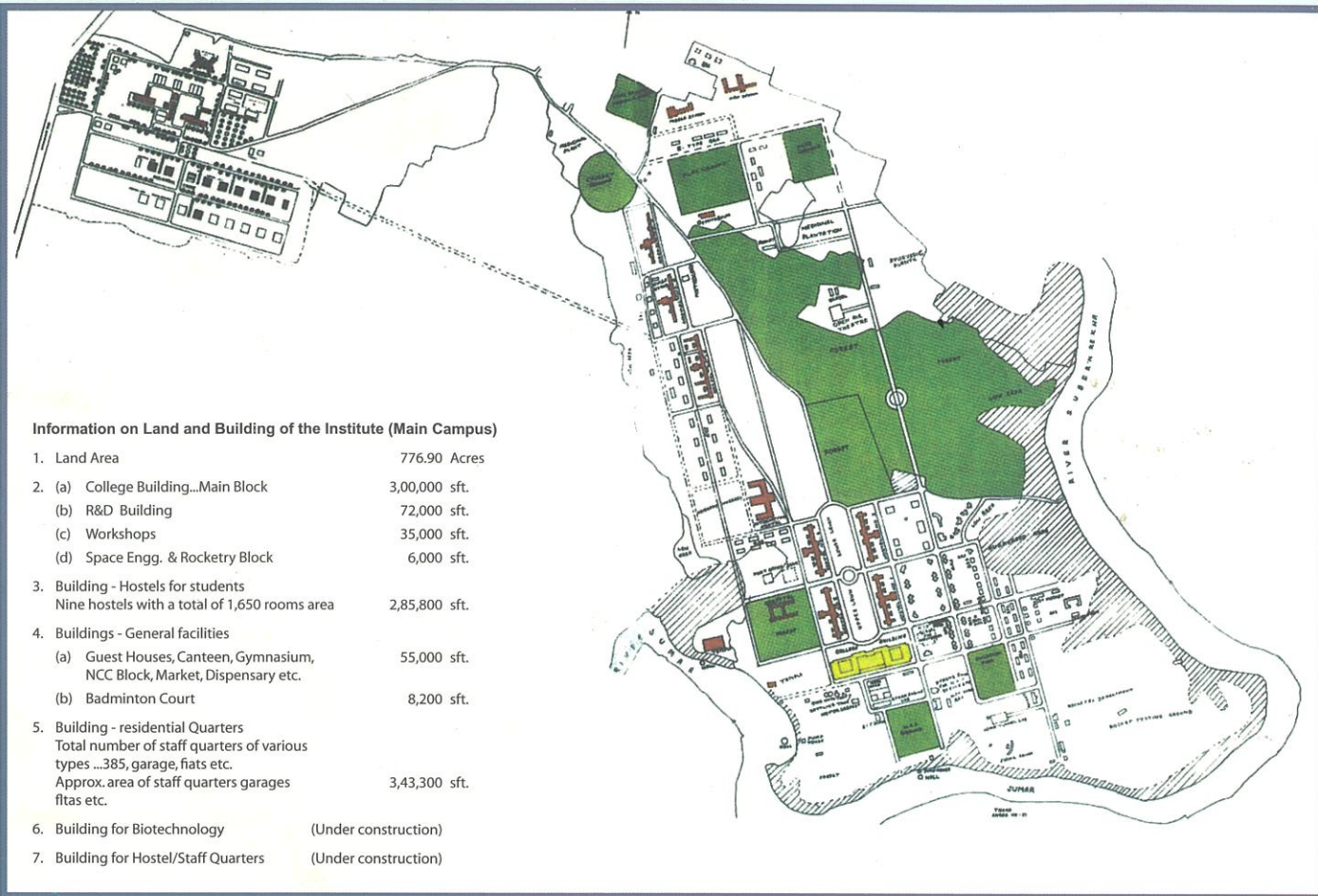
Annexure –IX

ADDRESS OF THE EXTENSION / INTERNATIONAL CENTRES

Sl. No.	
1.	BIT Extension Centre, Naini, 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
2	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
3	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
4.	BIT Extension Centre Kolkata Southend Conclave 1582 Rajdanga Main Road 4th Floor, KOLKATA-700107 Ph. No. (033)55256728,24414542 Fax No.(033)25762398,24414547
5.	BIT Extension Centre Lalpur Lalpur, Ranchi-834001 Ph No-(0651)2531679,2531817 Fax No.(0651)2531658,2531676 www.biteclalpur.ac.in

Sl. No	
6.	BIT Extension Centre, NOIDA A- 7, Sector -1 NOIDA-201301,(UP) Phone(0120)2553661/2 Fax: No. (0120) 2554146
7.	BIT Extension Centre Deoghar Jasidih, Deoghar - 814 132, Phone: 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
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