Director’s Report

It is indeed a privilege for me to present the Director’s Report for the year 2003-2004 including the major events and performance of the Institute.

Many of you would already be aware that India Today survey for this year shows IIT Kanpur as the best Institution for technical education in the country. Regaining this pre-eminent position by the Institute has been largely made possible by the dynamic leadership provided by the Chairman, Board of Governors and the tireless efforts of all the members of the IITK fraternity.

I am happy to share with you the good news that Mr. Karan Malhotra, a first-year undergraduate student (who will soon move into his second year) of Electrical Engineering Department, has been chosen for the prestigious Lucent Scholarship in recognition of his outstanding all-round qualities among all the undergraduate students in the country. The Bell Labs in New Jersey has invited him along with selected students from across the globe for visiting various laboratories and meeting scientists including some Nobel Laureates. Our hearty congratulations to Karan! It is people like Karan who keep IITK flag flying high.

ACADEMIC ACTIVITIES

The academic year 2003-2004 has had a successful run. The number of graduating students both at the undergraduate (B.Tech-337, M.Sc. (5 year Integrated)-27, M.Sc. (2 year)-47, Total = 411) as well as postgraduate (M.Tech-113, MBA-28, Ph.D-45, Total = 186) level shows a fairly satisfactory trend. The M. Tech. programme has become a four-semester programme. Hence the actual number of students receiving the degree in this Convocation has decreased somewhat. The enrolment in the Doctoral programme as well as the publication record of the faculty and students for the academic year 2003-2004 has improved considerably.

The year 2003-2004 was in a sense special in the history of IIT Kanpur. On the first of October 2003, the then Prime Minister Shri Atal Bihari Vajpayee inaugurated the state-of-the-art building for the new department of biological sciences and bio-engineering. Many of you may recall that the new initiative in biological sciences and bio-engineering and the building and the equipment therein were made possible owing to the generous support from the then Honorable Minister for Communication and Information Technology, Shri Arun Shourie, who donated his MPLAD funds. I am happy to mention here that we have been able to put together a team of young and energetic scientists and engineers in this fledgling department. The quality of research carried out there is already being recognized through liberal grants from the Wellcome Trust to Drs K Subramaniam and Balaji Prakash. I must also mention
here that yet another young faculty member Dr Debabrata Goswami of Chemistry department has also been conferred the Wellcome Trust grant.

AWARDS AND HONORS

The faculty and the students of IITK continue to break new grounds in the forefront of research. This has been duly recognized in the form of various Awards and Honors to the faculty and best paper awards to the students. This year’s Bhatnagar Prize went to Dr Manindra Agrawal in the area of Mathematical Sciences and to Dr V. Chandrasekhar in the area of Chemical Sciences. I am proud to add that Dr G. Ravi Kumar, a former Ph.D student of Physics at IITK, also received the Bhatnagar Prize for Physical Sciences for the year 2003. While Dr Manindra Agrawal and Dr Debashish Choudhury were elected Fellows of the Indian Academy of Sciences, Bangalore, Dr Ashutosh Sharma was elected a Fellow of the Indian National Science Academy, New Delhi. Drs Gautam Biswas, C. Venkatesan, Ashutosh Sharma and Manindra Agrawal were elected Fellows of the Indian National Academy of Engineering. Dr Pankaj Jalote was elected a Fellow of IEEE, USA. Drs V. Shankar and Anish Upadhyaya have been chosen for the Young Scientist Award of the Indian National Science Academy, New Delhi. Drs Sanjay Mittal of Aerospace Engineering and F.A. Khan of Chemistry department have been conferred the Swarna Jayanti Fellowship for 2003. The list of Awards and Honors being long, I am including it as an addendum to my report.

Thanks to the generosity and thoughtfulness of our Chairman, we have been able to institute a CNR Rao Lecture Series. This recognizes an outstanding researcher from within the Institute and this year such an honor is bestowed on Dr Ashutosh Sharma of Chemical Engineering Department.

I would like to mention here that IIT Kanpur continues to provide leadership in both technical education and also in research and development in the country. While Dr Krishna Kumar of Aerospace Engineering has been appointed the Director of MNNIT, Allahabad, Dr T. K. Chandrashekar of Chemistry Department has been appointed Director of Regional Research Laboratory, Thiruvananthapuram.

RESEARCH & DEVELOPMENT

IIT Kanpur faculty have undertaken a large number of sponsored projects. 326 new projects worth Rs 45 crore have come in the last year. The Institute has received approval for the Technology Mission on Rail Safety from the Government of India. Railways, MHRD and IIT Kanpur will participate in the scheme along with the industry. IIT Kanpur will co-ordinate the entire programme worth Rs 30 crore.
With the aim of bringing the benefits of information and communication design technologies to farmers and traders of agriculture commodities in this region, the Kanpur- Lucknow hub of Media Lab Asia has established a Digital Mandi and an experimental wireless VOIP phone based PCO extension counter at a nearby village. Technology developed at the Resource Center for Indian Languages has been transferred to eight centers for machine aided translation from English to Oriya, Bengali, Marathi, Assamese, Manipuri, Konkani, Urdu, Punjabi, Malayalam and Sanskrit. Software code compliance tool and software test coverage analyzer developed at the Department of Computer Science and Engineering have been commercialized by the Center for Reliability, Chennai, a laboratory of Ministry of Communication and Information Technology. A range-sensing, indoor, mobile robot equipped with micro-controller sub-system, laser range finder and wireless connectivity sub-system has been developed for BARC. This robot is capable of real time surveillance in hazardous environments. The Department of Mathematics has developed a video re-focusing technology through digital mathematical processing which compensates for the physical limitation of a camera. The processed images and video are quite crisp, live, non-straining to the eye and retain the scientific details necessary for technical work. This technology is expected to bring about a significant change in different kinds of video communication. Many companies including Zee Television have evinced interest in this technology. The work done on nano-sciences in the department of chemistry has been duly recognized through the Global Indus Technovator Award 2003 given by India Business Club of Massachusetts Institute of Technology, USA.

We continue to interact vigorously with industry. General Motors has sponsored a project for studying the galvanic corrosion behaviour of specific combination of light metal alloys. IIT Kanpur is conducting a study for gas phase nitration of organic and inorganic substances for Jubilant Organosys Ltd. Web-based energy audit and accounting software and trouble call management software for power distribution utilities developed at the Department of Electrical Engineering have been commercialized by Interra (India) Pvt.Ltd. Our faculty members are regularly providing consultancy services to major organizations such as TISCO, TELCO, Gas Authority of India Ltd., Hindustan Levers Limited, and Hindustan Aeronautics Limited, among others.

As in the past, this year also we have undertaken projects with direct societal relevance. The Department of Physics has designed a number of innovative, unconventional and exciting experiments for changing the present blackboard-intensive Physics education at school level by do-it-yourself methodology. To disseminate quality education to all, e-classrooms have been established at Raipur and Bilaspur and training of forty five teachers has been completed under the IIT Kanpur- Government of Chattisgarh collaboration. Under the IIT Kanpur – Khadi and Village Industries Commission collaboration, two projects on design, development and fabrication of bio-gas filling pilot plant and design and development of a bio-diesel pilot plant have been initiated. IIT Kanpur has embarked on a unique project of developing and applying point cloud technology and rapid proto-typing methodology for the three dimensional digital recording of the landmark monuments and other culturally
significant artifacts of the National Heritage of India. A new electro-thermally heated jacket with immense importance for defence personnel is being developed.

With the growing awareness of the importance of protecting intellectual property, the number of patent applications has increased to fifteen as compared to the ten filed the previous year. Some of these include a process for controlled synthesis of high molecular weight micron sized polymers, design of a high efficiency rotating packed bed suitable for distillation and absorption, and a tubular microwave sintering furnace with controlled atmosphere. IIT Kanpur has recently been awarded a U.S. patent for magneto-conductive polymer composites. These polymer blends have potential applications in avionic tubes and as flexible magnetic sensors. Another U.S. patent has been filed on polynomial time deterministic method for testing primality of numbers. This has wide ranging applications in cryptology.

IIT Kanpur participated in the one day workshop on nano-sciences and nano-technology held on April 29, 2004 at Rashtrapati Bhavan. The Institute is planning a major research initiative in this area. One proposal has been submitted to DST and another is being submitted to DRDO. Several activities are being envisaged under the new initiative in this area.

RESEARCH INFRASTRUCTURE DEVELOPMENT

To strengthen the research infrastructure, the Institute has procured a large number of new equipment: laser scattering particle size analyzer, coincidence Doppler positron annihilation radiation system; drill core scanner for magnetic susceptibility & natural gamma ray measurements; high pressure thin layer chromatography system; optical spectrum analyzer; 3-D surface profilometer to characterize material surfaces; gas chromatograph-mass spectrometer system equipment and an affymetrix scanner. FEI Quanta 200HV Scanning Electron Microscope with EDS and EBSD attachment. The electron paramagnetic resonance system procured last year under FIST from the Department of Science and Technology has been commissioned. As a recent initiative, the Institute has set-up a new ‘4i’ Laboratory with the objective of facilitating design evolution into complete products. This facility is equipped with a CNC vertical milling center, CNC turning center, fused deposition modeling, rapid prototyping, and abrasive water jet cutting machine. The SIDBI center for incubation is already operational. The SAMTEL R & D building is now fully functional.

FINANCIAL POSITION

The Institute has had a satisfactory financial year during 2003-04. The total non-plan grant(s) from MHRD was Rs 68 crore and that from the total plan funds was Rs 20 crore. The Institute received a grant of Rs. 3 crore (approximately) for various schemes like R & D, thrust area and laboratory modernization. MHRD has switched over to formula-based
funding and the Institute effectively strives to re-position itself in order to meet the challenges posed by this new funding pattern. I am sure with the able guidance of our Chairman and the support of the alumni and other well wishers of the Institute, we will rise to the occasion.

Thanks to the alumni living abroad, we have received Rs 65 lacs through the IIT Kanpur Foundation USA. We have also received Rs 43 lacs from the 1979 batch, Rs 2.86 lacs from the 1968 batch, Rs 10.37 lacs from the 1969 batch and Rs 8.62 lacs from the 1990 batch. In addition we have received liberal donations from various alumni towards establishing different lecture series in different departments (Arindam Bose, Rs 2.35 lacs for BSBE; Umang and Ruth Gupta, Rs 6.76 lacs for Alumni Lecture Series; Rakesh Pandey, Rs 4.5 lacs for Mechanical Engineering department; R. Ram Kumar, Rs 5 lacs for E. C. Subarao Lecture Series in MME department; Vijay Vittal, Rs 4.5 lacs for Department of Electrical Engineering and Computer Science & Engineering; Rajesh Gopakumar, Rs 45,000/- for Physics Department). We have also received from Ajit Gill Rs 13.54 lacs for the BSBE department and from Dr G. S. Kainth Rs 1 lac towards the establishment of Dr Gurcharan Singh Kainth Scholarship. The alumni continue to support the Institute morally, physically and financially. I wish to place on record our gratitude to all of them on behalf of the faculty, staff and students of IITK and on my own.

STUDENT ACTIVITIES

IIT Kanpur continually strives to encourage an equitable balance between academics and extra-curricular engagements among the students. The intention is to create future leaders in their chosen fields and not just technically accomplished individuals. The Institute strongly believes that a deep and abiding social and humane commitment is the hallmark of its students. In order to foster such an engagement, the Institute provides adequate support to the various social, cultural and sport activities pursued by the Student Gymkhana and other student groups.

A whole range of activities are pursued by the various clubs coming under the broad ambit of the councils of the gymkhana. They range from clubs like Prayas, where students teach children coming from socially disadvantaged and economically deprived backgrounds to the Dramatics club which stages thematically inspired and socially involved plays. Other technically oriented student groups are engaged throughout the year in pursuing special interests like robotics, electronic aids, animation, aero-modeling and astronomy, to name a few.

Large scale events like Antaragni (Cultural), Udghosh (Sports), Techkriti (Science and Technology), Megabucks (Business Club), Umang (SFS) are also organized by the students. Here there is an emphasis on outside participation to facilitate a dynamic and broadly networked spectrum of social and professional discourses. The Gymkhana Festivals have
seen vastly improved participation levels, both from within the institute and also from students from other Indian and International Institutes. The revenue generated from the conduct of these well-organized festivals registered a dramatic growth this year and ably testifies to the managerial and logistical skills of our students. Certain new initiatives effected this year include ‘Index’, an Industrial Exhibition organized as part of Techkriti. It is designed to provide a platform for student- industry interface. The Students Film society, in association with the Japanese Consulate, organized a Japanese Film Festival providing a forum for cultural exchange of ideas. The Japanese Consul and other Diplomatic Staff were special invitees to the event.

In the arena of sports, IIT Kanpur put up a creditable performance in the inter IIT sports meet held at IIT Bombay. The team finished fourth in the General championship and had a number of podium performances both in the team and individual events. To strengthen the sports culture, an inter-hall games event called JOSH was organized, and this event witnessed mass participation from the students.

Other activities like Nature trails, trekking, and mountaineering are being taken up actively by students. The NCC unit in addition to maintaining a commendable track record in the group also organized a para-sailing camp in the Institute this year. Student interest in hobbies like Photography and Music is also being actively encouraged, and the Institute provides the enthusiasts of these and other clubs with the requisite funds and equipment.

Discussion and debate in the student community is being sustained by both the general interest student magazine ‘Meander and the Campus News reportage of ‘Spark’. These journalistic endeavors have been successful in cultivating a broad awareness in the student community of certain problems. They facilitate an active personal engagement in the system of redressal and also act as a sounding board for student opinion.

The placement scenario this year has witnessed a positive upswing with almost 84% of the B.Tech and 57% of the M. Tech students registered with the student placement office getting offers. Invitations had been sent out to nearly 700 public and private organizations and the response from various National and International business majors has been encouraging. Many companies of repute also registered for the on campus recruitment program for the first time. With an improved facilitation and response system in place, we earnestly hope that the coming year would see increased participation of companies and industrial organizations for placement and industrial training programs for the students, respectively.

Hostel infrastructure has registered a marked improvement with the renovation of facilities in the respective halls. Hall-7 is fully functional and capacity is being added in the form of Hall-8 with 484 seats, which is nearing completion and due for occupation by the next semester. We are happy to note that the sanctioned increase in strength does not pose a constraint as the infrastructural plans of the institute keep pace with the proposed increase.
CLOSING REMARKS

I heartily congratulate all the graduating students. This campus has given you the knowledge as well as a unique value system. We all fervently hope that you would excel in your professional career. It is time for you to get prepared to see a globally competitive world. Some of you will choose to work in the industry, some of you will choose to go in for higher studies, some of you will opt for a career in management, and some of you will prefer to serve the society as civil servants. Whatever be your chosen profession, please remember that innovation and integrity should remain your guiding principles. You are the one whom the world needs to provide novel solutions for its complex problems. As you step into the real world, be ready to face situations that will repeatedly challenge your values. You will need to stand firm and face such situations bravely. At best, this Institute has provided you an environment that has helped you internalize several principles, acquire some skills, and gain knowledge of several fields. All this translates into the basic capital of your life. While the journey ahead constitutes the real learning for you, be assured that the spirit of IITK which you have imbibed will act as your conscience and help you to negotiate the crises and perils of this journey. You are now our alumni. We are proud of you. We also hope that from now on you will play the role of a trustee for the Institute. Your contributions will enrich the heritage of IITK. Wherever you are, we will always be happy and proud to hear about your success. If you need guidance, please feel free to seek the help of your alma mater. Our relationship thus far as teacher and the taught now graduates to that of mutual friends. This new relationship is a most beautiful gift that your teachers have given you today. I’m sure you will cherish it as your lifelong treasure.

Sanjay G Dhande
AWARDS AND HONOURS

Dr. Manindra Agarwal, Professor in the Department of Computer Science and Engineering, has received this year’s Bhatnagar Award in Mathematical Sciences.

Dr. V. Chandrasekhar, Professor in the Department of Chemistry, has received this year’s Bhatnagar Award in Chemical Sciences.

Dr Sanjay Mittal, Professor in the Department of Aerospace Engineering, has been selected for the Swarnajayanti Fellowship 2003.

Dr F. A. Khan, Associate Professor in the Department of Chemistry, has been selected for the Swarnajayanti Fellowship 2003.

Dr. Ashutosh Sharma, Professor in the Department of Chemical Engineering, has been elected a Fellow of the Indian National Science Academy.

Dr. Gautam Biswas, Professor in the Department of Mechanical Engineering, Dr. C. Venkatesan, Professor in the Department of Aerospace Engineering, Dr. Ashutosh Sharma, Professor in the Department of Chemical Engineering and Dr. Manindra Agarwal, Professor in the Department of Computer Science and Engineering, have been elected Fellows of the Indian National Academy of Engineering.

Dr. Pankaj Jalote, Professor in the Department of CSE, has been elected a Fellow of IEEE, USA

Dr. D. Chowdhury, Professor in the Department of Physics, has been elected a Fellow of the Indian Academy of Sciences, Bangalore.

Dr. Rajiv Sinha, Associate Professor in the Department of Civil Engineering, has been selected for the National Mineral Award 2002.

Dr K. Subramaniam, Assistant Professor in the Department of BSBE, has been chosen for the Wellcome International Senior Research Fellowship.

Dr Vinod K. Singh, Professor in the Department of Chemistry, has been chosen as the recipient of the Bronze Medal of the Chemical Research Society of India for the year 2003.

Dr T. K. Chandrashekar, Professor in the Department of Chemistry, has been chosen the Professor Priyadarjan Ray Memorial Awardee of the Indian Chemical Society for the year 2002.
Dr Anish Upadhyaya, Assistant Professor in the Department of MME, has been invited to serve as the Editorial Advisory Board member for the Journal, Transaction of the Indian Ceramic Society.

Dr. G. Ravindra Kumar, former Ph.D. student under Professor K. K. Sharma in the Department of Physics at IIT Kanpur, has been chosen for this year’s Bhatnagar Award in Physical Sciences.

Dr. Neeraj Mishra, Associate Professor in the Department of Mathematics, has been selected as a recipient of the C.L. Chandra Award for Distinguished and Outstanding Contributions to Mathematics Research and Teaching in India for the year 2003.

Dr. H. Ila, Professor in the Department of Chemistry, has been chosen the C.J. Ghosh Memorial Lecturer for the year 2002 by the Indian Chemical Society. Dr. Ila and her husband Professor Junjappa have received this year’s Chairman’s Award of Astrazeneca Research Foundation of India.

Dr. S. Sundar Manoharan, Associate Professor in the Department of Chemistry, has been conferred the Global Innovator Award during November 2003 at MIT.

Dr. S.P. Das, Associate Professor in the Department of Electrical Engineering, and Dr. Bhaskar Dasgupta, Assistant Professor in the Department of Mechanical Engineering, have been chosen for the Young Engineer Awards (2003).

Dr. Krishna Kumar, Professor in the Department of Aerospace Engineering and presently Director of MNNIT, Allahabad, has been chosen for this year’s Excellence in Aerospace education award by Aeronautical Society of India.

Dr. Avinash Agarwal, Assistant Professor in the Department of Mechanical Engineering, has been invited to join the Editorial Board of Journal of Automobile Engineering, a journal published by the Institution of Mechanical Engineers, U.K.

Dr. Bikramjit Basu, Assistant Professor in the Department of Materials and Metallurgical Engineering, has been chosen for this year’s RL Thakur Memorial Award of the Indian Ceramic Society. He has been chosen for the award in recognition of his valuable contributions in the field of Materials Science.

Dr. T.K. Chandrashekar, Professor in the Department of Chemistry and presently Director of RRL, Trivandrum, has been chosen for this year’s CHEMITO award.

Dr. D.P. Mishra, Assistant Professor in the Department of Aerospace Engineering, has been elected a member of the executive committee of Combustion Institute (IS).
Dr. V.K. Singh, Professor in the Department of Chemistry, has been chosen for the “Goyal Prize for Young Scientist” in Chemistry.

Dr S. S. Katiyar, former faculty in the Department of Chemistry, has been re-appointed as Vice-Chancellor of CSJM University Kanpur for a period of 3 years w.e.f. 25-07-2003.

In the recently held 6th National Symposium of the Chemical Research Society of India, the following awards went to the faculty and students of the Chemistry Department:

Young Chemist award to Professor J.N. Moorthy

Two of the 6 best poster awards to Madhavaiah (a Ph.D student working under the guidance of Dr. S. Verma) and Hare Krishnan (a Ph.D student working under the guidance of Dr. R. Gurunath).

BOOKS PUBLISHED

Dr. TVS Ramamohan Rao, Professor in the Department of HSS, has written a book entitled CONTRACT ECONOMICS with QIP funds. This book is published by New Age International (P) Limited, India.

Dr. S.D. Joglekar, Professor in the Department of Physics, has written and submitted a manuscript of Mathematical Physics, Volume II with QIP funds.

Dr. Gautam Biswas, Professor in the Department of Mechanical Engineering, has released the second edition of the book, “Introduction to Fluid Mechanics and Fluid Machines. This book is published by Tata McGraw-Hill.

Dr. V.K. Jain, Professor in the Department of Mechanical Engineering, has been appointed a member of the Editorial Board of the International Journal of Manufacturing Technology and Management being published by Inderscience Publishers (UK).

The Text book of Ordinary Differential Equations, 2nd Edition authored by Dr. V. Raghavendra, Professor in the Department of Mathematics and published by Tata McGraw-Hill has undergone 4th reprint.
## MAJOR SPONSORED RESEARCH PROJECTS

### WELLCOME TRUST

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (in Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification and characterization of genes involved in germ cell development in <em>caenorhabditis elegans</em></td>
<td>152.34</td>
</tr>
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</table>

### DEPARTMENT OF BIOTECHNOLOGY

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (in Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer genomics in <em>drosophila</em>: areal time expression profiling of cancers of diverse genetic origin</td>
<td>167.4</td>
</tr>
</tbody>
</table>


**Organisation**

The Indian Institute of Technology Kanpur is an autonomous organization incorporated under an Act of Parliament in the year 1961, and is wholly financed by the Government of India, under the control of the Ministry of Human Resource Development, Government of India. The authorities constituted under the Act and Statutes, which govern and guide the functioning of the Institute in the areas of administration and academic programmes are the Council of IITs, the Board of Governors assisted by two statutory bodies the Finance Committee in financial matters, and the Building and Works Committee in matters related to construction and repair of buildings and major works. The Senate is assisted by its various Standing Committees. The composition of these constituent bodies are as follows:

**THE IITS COUNCIL**

**Chairman**
Dr. Murli Manohar Joshi  
Minister of Human Resource Development  
New Delhi-110 001

**Chairmen of the Seven Institutes (Ex-officio)**
Shri Sanjeev Goenka  
Chairman, Board of Governors, IIT Kharagpur  
RPG Group of Companies  
Coat Ltd. 463, Dr AB Road  
Mumbai-400025

Shri Rahul Bajaj  
Chairman, Board of Governors, IIT Bombay  
Mumbai

Dr. K Kasturirangan  
Chairman, Board of Governors, IIT Madras  
Member, ISRO, Bangalore

Shri Hari S Bhartia  
Chairman, BOG IIT Kanpur  
Plot No. I-A, Sector 16-A  
Industrial Area  
Noida-201301 (Upto-11.06.2003)
Prof. C.N.R. Rao  
Chairman, BOG IIT Kanpur  
Linus Pauling Research Professor & Honorary President  
Jawaharlal Nehru Centre for Advanced Scientific Research  
P.O. Jakkur  
Bangalore-560064

Prof. M.G.K. Menon  
Chairman, Board of Governors, IIT Delhi  
Hauz Khas  
New Delhi-110016

Shri Achyut Kumar Saikia  
Chairman, Board of Governors, IIT Guwahati  
Guwahati

Shri S K Joshi  
Chairman, Board of Governors, IIT Roorkee  
Roorkee

**Directors of Institute (Ex-Officio)**

- Prof. S K Dube  
  Kharagpur
- Prof. Ashok Misra  
  Bombay
- Prof. M S Ananth  
  Madras
- Prof. SG Dhande  
  Kanpur
- Prof. RS Sirohi  
  Delhi
- Prof. Gautam Barua  
  Guwahati
- Prof. PremVrat  
  Roorkee

**Other Members (Ex-Officio)**

- Prof. Arun S Nigavekar  
  Chairperson (Officiating)  
  University Grants Commission  
  Bahadurshah Zafar Marg  
  New Delhi-110002

Dr. RA Mashelkar  
Director General  
Council of Scientific & Industrial Research  
Anushandhan Bhawan, Rafi Marg, New Delhi
Dr. Raja Ramanna  
Chairman, Council of IISc Bangalore  
National Institute of Advance Studies  
Indian Institute of Science, Bangalore-560012  

Prof. Goverdhan Mehta  
Director  
Indian Institute of Science, Bangalore-560012  

Nominees of the Central Government  
Shri VS Pandey  
Jt. Secretary  
Ministry of Human Resource Development  
Government of India  
Department of Secondary Education and Higher Education  
Shastri Bhawan  
New Delhi-110001  

Shri VK Pipersenia  
Financial Adviser  
Government of India  
Ministry of Human Resource Development  
Department of Education  
Shastri Bhawan  
New Delhi-110001  
Shri S K Tripathi  
Secretary  
Department of Secondary Education & Higher Education  
Government of India  
Ministry of Human Resource Development  
Shastri Bhawan  
New Delhi-110001  

Shri D.C. Gupta  
Secretary  
Department of Expenditure  
Ministry of Finance  
Government of India  
Yojana Bhawan  
New Delhi
Shri K.K. Jaswal  
Secretary  
Department of Information Technology  
Government of India

**Nominee of All-India Council for Technical Education**  
Prof. R Natarajan  
Chairman  
AICTE

**Nominee of the Visitor**  
Shri N R Narayan Murty  
Chairman  
Infosys Technologies Ltd.  
Bangalore

Dr. R. Chidambaram  
Principal Scientific Adviser  
to the GOI  
New Delhi

Prof. P V Indiresan,  
Former Director,  
IIT Madras

Shri L M Thapar  
Chairman  
Ballarpur Industries

**Three Members of the Parliament (two from Lok Sabha and one from Rajya Sabha)**  
Shri Prithviraj D Chavan  
Member of Parliament (Lok Sabha)  
C-12, Humayun Road  
New Delhi-110003

Shri MA Kharabela Swain  
Member of Parliament  
166 North Avenue  
New Delhi-110001
Shri B J Panda  
Member of Parliament (Rajya Sabha)  
295 Gulmohar  
New Delhi

Secretary  
Shri VS Pandey  
Jt. Secretary (Technical)  
Ministry of Human Resource Development  
Government of India  
Department of Secondary Education and Higher Education  
Shastri Bhawan  
New Delhi-110001

THE BOARD OF GOVERNORS

Chairman  
Shri Hari S Bharatia  
Chairman & Managing Director  
Vam Organic Chemicals Limited  
Plot No. 1A, Sector 16-A  
Industrial Area  
Noida-201301  
(Upto 11.06.2003)

Prof. C.N.R. Rao  
Linus Pauling Research Professor & Honorary President  
CISR Centre of Excellence in Chemistry  
Chemistry & Physics of Materials Unit  
Jawaharlal Nehru Centre for Advanced Scientific Research  
P.O. Jakkur  
Bangalore-560064  
(From 12.06.2003)

Members

Four Members of the Council of IITs  
Prof. G K Mehta  
Vice Chancellor  
University of Allahabad, Allahabad-211001  
(From 01.02. 2001)  
(Upto 07.02.2004)  
(Renominated w.e.f. 08.02.2004)

Dr. Paul Ratnaswamy  
Director  
National Chemical Laboratory, Pune 411 008  
(Upto 07.02.2004)
Prof. D.P.Singh  
Vice Chancellor  
UP Rajasrshi Tandon Open University  
17, Maharashi Dayanand Marg  
(Thornhill Road), Allahabad-211 001  

Prof. S.Lele  
Director  
Institute of Technology,  
Banaras Hindu University,  
Varanasi-221005  

Shri Anil Ambani  
Vice-Chairman & Managing Director  
Reliance Industries Limited  
Makers Chambers- VI, Nariman Paoint  
Mumbai-400021  

Shri V S Pandey  
Joint Secretary (Technical)  
Government of India  
Department of Secondary Education and Higher Education  
Ministry of Human Resource Development  
Shastri Bhawan,  
New Delhi-110001  

The nominees of the concerned State Government  
Prof. P B Sharma  
Principal  
Delhi College of Engineering  
(Govt. of National Capital Territory of Delhi)  
Bawana Road,  
Delhi-110042  

Prof. S S Katiyar  
Vice-Chancellor  
(Chhatrapati Sahuji Maharaj University  
Kanpur-208024  

Shri Rakesh Bhan  
Adviser to the Chief Minister  
Chattisgarh Bhawan  
7 Sardar Patel Marg  
New Delhi-110022  

Annual Report 2003-04
**Director (Ex-officio)**
Prof. S G Dhande

**Two Nominees of the Senate**
Prof. Sarvesh Chandra (Upto 31.12.2003)
Department of Civil Engineering
IIT Kanpur

Prof. V. Bansal (From 01.01.2004)
Department of Materials & Metallurgical Engineering
IIT Kanpur

Department of Humanities and Social Sciences (Re-nominated from 01.01.2004)
IIT Kanpur

**Secretary**
Professor NK Sharma
Professor Incharge (Admin)
and Secretary, Board of Governors
IIT Kanpur

**THE FINANCE COMMITTEE**
Shri Hari S. Bhartia (Upto 11.06.2003)
Chairman & Managing Director
Vam Organic Chemicals Limited
Plot No. 1-A, Sector 16-A
Institutional Area, Noida-201301

Prof. C.N.R. Rao (From 12.06.2003)
Research Professor & Honorary President
CISR Centre of Excellence in Chemistry
Chemistry & Physics of Materials Unit
Jawaharlal Nehru Centre for Advanced Scientific Research
P.O.Jakkur, Bangalore-560 064

**The Nominees of the Central Government**
Shri V K Pipersenia
Financial Advisor
Ministry of Human Resource Development Government of India
Department of Education
Shastri Bhawan, New Delhi-110001
Shri V S Pandey  
Joint Secretary (T)  
Ministry of Human Resource Development  
Government of India  
Department of Secondary Education and Higher Education  
Shastri Bhawan  
New Delhi-110001

Nominees of the Board
Prof. G K Mehta  
Vice Chancellor  
University of Allahabad  
Allahabad-211001

Prof. Binayak Rath  
Department of Humanities and Social Sciences  
IIT Kanpur

Director (Ex-Officio)
Prof. S G Dhande

Secretary
Professor N K Sharma  
Professor Inchage (Administration)  
and Secretary, Finance Committee  
IIT Kanpur

THE BUILDING AND WORKS COMMITTEE

Chairman
Prof. S G Dhande  
Director  
IIT Kanpur

Members
Shri S P Singh  
Chief Engineer (Northern Zone)  
Central Works Department  
Uttaranchal-2 Sector H  
CGO Complex 3rd Floor  
Lucknow-226024
Shri P B Vijay  
M-21, Greater Kailash-II  
New Delhi-110067  

Shri D N Agarwal  
Retd. Chief Engineer (Electrical) CPWD  
M-21, Greater Kailash-II  
New Delhi-110048  

Prof. Sarvesh Chandra  
Department of Civil Engineering  
IIT Kanpur  

Prof. V. Bansal  
Department of Materials & Metallurgical Engineering  
IIT Kanpur  
(From 01.01.2004)  

Shri P.K. Gupta  
Director  
Government of India  
Ministry of Human Resource Development  
Shastri Bhawan  
New Delhi-110001  

Professor Kripa Shanker  
Deputy Director  
IIT Kanpur  

Professor NK Sharma  
Professor Incharge (Administration)  
and Secretary, Building and Works Committee  
IIT Kanpur  

SENATE  
[From 01.04.2003 to 31.03.2004]  

Director & Chairman Senate:  
Prof. Sanjay Govind Dhole  

Deputy Director:  
Prof. Kripa Shankar
Members of the Senate :

**AEROSPACE ENGINEERING (AE):**
- Prof. NGR Iyengar
- Prof. AK Gupta [Upto 20.06.2003]
- Prof. Krishna Kumar
- Prof. Vijai Gupta
- Prof. SC Raisinghani [Upto 08.03.2003]
- Prof. Kunal Ghosh
- Prof. RK Sullery
- Prof. Dayanand Yadav
- Prof. E Rathakrishnan
- Prof. C. Venkatesan
- Prof. T.K. Sengupta
- Prof. Sanjay Mittal [From 14.10.2003]
- Prof. Sudhir Kamle [From 14.10.2003]
- Prof. Kamal Poddar [From 14.10.2003]
- Dr. C S Upadhyay [From 01.10.2003]

**BIOLOGICAL SCIENCES & BIO-ENGINEERING (BSBE):**
- Prof. Pradip Sinha

**CHEMICAL ENGINEERING (CHE):**
- Prof. DN Saraf [Upto 30.06.2003]
- Prof. MS Rao
- Prof. SK Gupta
- Prof. Anil Kumar
- Prof. Deepak Kunzru
- Prof. JP Gupta
- Prof. YV Chalapati Rao
- Prof. DP Rao
- Prof. RP Singh
- Prof. PK Bhattacharya
- Prof. RP Chhabra
- Prof. Ashok Khanna
- Prof. Ashutosh Sharma

**CHEMISTRY (CHM):**
- Prof. SK Dogra
Prof. N Sathyamurthy
Prof. S Sarkar
Prof. BD Gupta
Prof. YD Vankar
Prof. TK Chandrashekar
Prof. V Chandrasekhar
Prof. RN Mukherjee
Prof. Parimal K Bhardwaj
Prof. (Ms) H Ila
Prof. N.S. Gajbhiye
Prof. P. Gupta Bhaya
Prof. Amalendu Chandra
Prof. Veejendra K Yadav
Prof. Vinod K Singh
Prof. S. Manogaran
Dr. R. Gurunath [From 01.12.2002]

CIVIL ENGINEERING (CE):
Prof. NSV Kameswara Rao [Upto 30.06.2003]
Prof. MR Madhav [Upto 30.06.2003]
Prof. Ashwini Kumar
Prof. Malay Chaudhari
Prof. BC Raymahashay
Prof. B.R. Marwah
Prof. Umesh Dayal [Upto 31.01.2004]
Prof. T. Gangadhariah [Upto 30.06.2003]
Prof. PK Basudhar
Prof. Sudhir K Jain
Prof. Sarvesh Chandra
Prof. Bithin Datta
Prof. Vinod Tare
Prof. Ramesh Pratap Singh
Prof. Vinay Kumar Gupta
Prof. S.K. Chakrabarti
Prof. CVR Murty [From 14.10.2003]
Prof. Mukesh Sharma [From 14.10.2003]
Dr. Rajiv Sinha [Upto 30.09.2003]
Dr. Purnendu Bose [From 01.10.2003]
Dr. Onkar Dikshit [From 01.12.2003]

COMPUTER SCIENCE & ENGINEERING (CSE):
Prof. RMK Sinha
Prof. Somnath Biswas
Prof. HC Karnick
Prof. Pankaj Jalote
Prof. TV Prabhakar
Prof. Sanjeev Kumar Aggarwal
Prof. Sanjeev Saxena
Prof. Rajat Moona
Prof. Manindra Agrawal
Prof. Amitabha Mukherjee
Prof. Dheeraj Sanghi [From 14.10.2003]
Prof. Phalguni Gupta [From 14.10.2003]
Prof. R.K. Ghosh [From 14.10.2003]
Prof. Ajai K Jain [From 14.10.2003]

ELECTRICAL ENGINEERING (EE):
Prof. GK Dubey [Upto 11.01.2004]
Prof. S Kar
Prof. Vishwanath Sinha
Prof. PK Chatterjee [Upto 30.06.2003]
Prof. SR Doradla
Prof. KE Hole
Prof. Avinash Joshi
Prof. Ravindra Arora
Prof. Sanjay K Bose [Upto 24.12.2003]
Prof. KR Srivathsan
Prof. GC Ray
Prof. Arindam Ghosh
Prof. Sachchidanand [Upto 15.07.2003]
Prof. M Sachidananda
Prof. SC Srivastava
Prof. Anjan Kumar Ghosh
Prof. Prem Kumar Kalra
Prof. Shafi Qurreshi
Prof. Sumana Gupta
Prof. Utpal Das
Prof. Govind Sharma
Prof. Aloke K Dutta
Prof. Joseph John [From 14.10.2003]
Prof. Pradip Sircar [From 14.10.2003]
Prof. Animesh Biswas [From 14.10.2003]
Dr. A.K. Chaturvedi [From 01.12.2003]

HUMANITIES & SOCIAL SCIENCES (HSS):
Prof. PP Sah [Upto 30.06.2003]
Prof. TVS Ramamohan Rao
Prof. BN Patnaik
Prof. RS Mishra [Upto 30.06.2003]
Prof. (Ms) Lilavati Krishnan
Prof. NK Sharma [Upto 13.10.2003]
Prof. Binayak Rath
Prof. AK Sharma
Prof. KK Saxena
Prof. AK Sinha
Prof. Amit Ray
Prof. BH Boruah
Prof. (Ms) Raka Sharan
Prof. Binay Kumar Pattnaik
Prof. G. Neelakantan [From 14.10.2003]
Dr. Surajit Sinha [Upto 30.09.2003]

INDUSTRIAL & MANAGEMENT ENGINEERING (IME):
Prof. AK Mittal
Prof. Tapan P Bagchi
Prof. Kripa Shanker
Prof. Arun P Sinha
Prof. R.R.K. Sharma
Prof. Jayanta Chatterjee
Prof. NK Sharma [From 14.10.2003]

MATERIALS & METALLURGICAL ENGINEERING (MME):
Prof. A. Ghosh
Prof. G.S. Upadhayaya
Prof. SP Mehrotra
Prof. RK Ray
Prof. NK Batra [Upto 06.09.2003]
Prof. RC Sharma
Prof. Shant P Gupta
Prof. RK Dube
Prof. Brahma Deo
Prof. SC Koria
Prof. Sanjeev Bhargava
Prof. N Chakraborti
Prof. Dipak Mazumdar
Prof. Virendra Bansal
Prof. V.S.R. Murthy
Prof. Sandeep Sangal
Prof. Rajiv Shekhar
Prof. Barada K Mishra
Prof. R. Balalsubramaniam

MATHEMATICS (MTH):
Prof. PC Das [Upto 30.06.2003]
Prof. SK Gupta [Upto 30.06.2003]
Prof. UB Tewari
Prof. MR Sridharan
Prof. PC Joshi
Prof. (Ms) Prabha Sharma
Prof. GK Shukla [Upto 30.06.2003]
Prof. RKS Rathore
Prof. (Ms) Manjul Gupta
Prof. MK Kadalbajoo
Prof. MC Bhandari [Upto 31.07.2003]
Prof. Prawal Sinha
Prof. GP Kapoor
Prof. Peeyush Chandra
Prof. V Raghavendra
Prof. ID Dhariyal
Prof. (Ms) Shobha Madan
Prof. Debasish Kundu
Prof. Pravir Kumar Dutt

MECHANICAL ENGINEERING (ME):
Prof. Amitabha Ghosh
Prof. GK Lal [Upto 30.06.2003]
Prof. SN Bandyopadhyay
Prof. B Sahay
Prof. AK Mallik
Prof. Ashok Sengupta
Prof. Prashant Kumar
Prof. BP Singh
Prof. Manohar Prasad
Prof. BN Banerjee
Prof. MS Kalra
Prof. SG Dhande
Prof. VK Jain
Prof. NN Kishore
Prof. Himanshu Hatwal
Prof. PM Dixit
Prof. Keshav Kant Saxena
Prof. K Muralidhar
Prof. Gautam Biswas
Prof. Prabhat Munshi
Prof. BP Pundir
Prof. S.K. Chaudhury
Prof. N.S. Vyas
Prof. V. Eswaran
Prof. Kalyanmoy Deb
Prof. P.S. Ghoshdastidar
Dr. Bishakh Bhattacharya [From 01.12.2002]

MATERIALS SCIENCE PROGRAMME (MSP):
Prof. DC Agarwal
Prof. Jitendra Kumar
Prof. KN Rai

PHYSICS (PHY):
Prof. SC Agarwal
Prof. K. Banerjee
Prof. AK Majumdar
Prof. SD Joglekar
Prof. Keshawa Shahi
Prof. Vijai A Singh
Prof. Rajendra Prasad
Prof. Debashish Chowdhury
Prof. RC Budhani
Prof. Y.N. Mohapatra
Prof. Avinash Singh
Prof. KK Sharma [Upto 30.06.2003]
Prof. Desheep Sahdev
Prof. V.N. Kulkarni
Prof. Manoj K Harbola [From 14.10.2003]
Prof. Satyendra Kumar [From 14.10.2003]
Prof. V Ravishankar [From 14.10.2003]
Prof. Pankaj Jain [From 14.10.2003]
Prof. H C Verma [From 14.10.2003]

LASER TECHNOLOGY PROGRAMME (LTP):
Prof. RK Thareja

LIBRARIAN : Dr. Bhooshan Lal

Secretary, Senate : Prof. NK Sharma
THREE NOMINEES OF THE CHAIRMAN, BOARD OF GOVERNORS  
(from 01.11.2002 To 31.10.2003):

Prof. J. Patterson (Science Discipline)  
104, Ashray Apartment  
7/115, Swaroop Nagar  
Kanpur – 208002

Prof. K.P. Singh (Engineering Discipline)  
Director  
H.B.T.I.  
Kanpur - 208002

Prof. V.N. Seth (Humanities Discipline)  
17/3, Mall Road  
Kanpur – 208001

SENATE STANDING COMMITTEES :  
[From 01.10.2002 To 30.09.2003]

(1) SENATE EDUCATIONAL POLICY COMMITTEE :  
(a) MEMBERS (EX-OFFICIO) :  
1. Chairman, Senate : Prof. SG Dhande: Chairman  
2. Chairman, SPGC : Prof. Binayak Rath, HS  
3. Chairman, SUGC : Dr. Sanjay Mittal, AE

(b) SENATE NOMINEES :  
1. Dr. R.N. Mukherjee CHM : Convener  
2. Dr. S. Bhargava MME  
3. Dr. B. N. Patnaik HSS

(c) STUDENTS’ SENATE NOMINEES :  
1. Sushank Vasistha 99393 G-210/1  
2. Sharad Gupta, 9810982 C-208/4

(2) SENATE ELECTIONS COMMITTEE :  
SENATE NOMINEES :  
1. Dr. S. Umesh EE
2. Dr. N.V. Reddy ME
3. Dr. Surajit Sinha HSS : Chairman

(3) SENATE LIBRARY COMMITTEE :

(a) LIBRARY :

Librarian

(b) SENATE NOMINEES :

1. Dr. R.K. Bansal EE
2. Dr. Y.D. Vankar CHM
3. Dr. A.K. Majumdar PHY
4. Dr. A.K. Mallik ME

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

1. Dr. T.K. Sengupta AE
2. Dr. R. Sankararamakrishnan BSBE
3. Dr. N. Verma CHE
4. Dr. T. Chakravorty CHM
5. Dr. Rajiv Sinha CE : Chairman
6. Dr. Sanjeev Saxena CSE
7. Dr. Sanjay K. Bose EE
8. Dr. Suchitra Mathur HSS
9. Dr. Anoop Singh IME
10. Dr. Anjan K. Ghosh LTP
11. Dr. A. Sengupta ME
12. Dr. R.K. Dube MME
13. Dr. Y.N. Mohapatra MSP
14. Dr. V. Raghavendra MATH
15. Dr. Ashok Sengupta NET
16. Dr. R. Prasad PHY

(d) STUDENTS’ SENATE NOMINEES :

1. Jitin Arora 98167 E-106/1
2. Vaibhav Krishna Y111128 E-203/4

(4) SENATE POST-GRADUATE COMMITTEE :

(a) MEMBER (EX-OFFICIO) :

Dr. Binayak Rath, HSS : Chairman

(b) SENATE NOMINEE :

29
1. Dr. N.S. Vyas : ME

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES :

1. Dr. Ashish Tewari AE
2. Dr. S. Ganesh BSBE
3. Dr. Gautam Deo CHE
4. Dr. K. Srihari CHM
5. Dr. Animesh Das CE
6. Dr. Mukesh Sharma EEMP
7. Dr. Somenath Biswas CSE
8. Dr. S.P. Das EE
9. Dr. Shikha Dixin HSS
10. Dr. R.R.K. Sharma IME
11. Dr. Y.N. Singh LTP
12. Dr. P.M. Dixit ME
13. Dr. S. Sangal MME
14. Dr. K.K. Kar MSP
15. Dr. A.K. Maloo MATH
16. Dr. P. Munshi NET
17. Dr. V. Ravishankar PHY
18. Dr. Prashant Kumar M.Des.

(d) STUDENTS’ SENATE NOMINEES :

1. Sharad Gupta 9810982 C-208/4
2. Brajesh Pandey Y120963 H-218/4
3. P. Gopalakrishnan Y112510 D-107/4
4. Ramesh Kumar Sonkar Y110451 A-210/4

(5) SENATE RULES COMMITTEE :

(a) MEMBER (EX-OFFICIO) :
Parliamentarian of the Senate

(b) SENATE NOMINEES :

1. Dr. R.C. Budhani PHY: Chairman
2. Dr. C. Venkatesan AE
3. Dr. B.K. Pattnaik HSS

(6) SENATE SCHOLARSHIPS & PRIZES COMMITTEE :

(a) MEMBERS (EX-OFFICIO) :
Head, Institute Counselling Service
Chairman, APEC
Representative of COW  
Dean of Students’ Affairs

(b) SENATE NOMINEES:

1. Dr. Prabha Sharma   MTH  
2. Dr. Purnendu Bose    CE  
3. Dr. A.M. Raina       HSS  
4. Dr. Manohar Prasad  ME : Chairman  

(c) STUDENTS’ SENATE NOMINEES:

1. Ashish Gupta        99091 G-218/1  
2. Mrinal Vikram       99226 G-115/1  
3. Prathmesh Kant      99279 E-101/1  

(7) SENATE STUDENTS’ AFFAIRS COMMITTEE:

(a) MEMBERS (EX-OFFICIO):

Head, Institute Counselling Service  
Chairman, APEC  
Representative of COW  
Dean of Students’ Affairs : Chairman, Ex-Officio

(b) SENATE NOMINEES:

1. Dr. C.S. Upadhyaya   AE  
2. Dr. H. Karnick       CSE  
3. Dr. Sumana Gupta     EE  

(c) STUDENTS’ SENATE NOMINEES:

1. Prathmesh Kant      99279 E-101/1  
2. Yogesh Verma        98419 E-209/1  
3. Subhashish Banerjee 98374 H-115/4  
4. Abhay Agarwal       99004 F-311/1  

(8) SENATE UNDERGRADUATE COMMITTEE:

(a) MEMBER (EX-OFFICIO):

Dr. Ajai Jain  
CSE

(b) SENATE NOMINEE:

1. Dr. B.N. Banerjee   ME

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Dr. S. Mittal       AE : Chairman
2. Dr. K. Subhramanium BSBE
3. Dr. R.P. Singh CHE
4. Dr. F.A. Khan CHM
5. Dr. Vinay Kumar Gupta CE
6. Dr. Malay Chaudhuri EEMP
7. Dr. Manindra Agrawal CSE
8. Dr. A.K. Chaturvedi EE
9. Dr. B.H. Boruah HSS
10. Dr. Sanjeev Swami IME
11. Dr. Asima Pradhan LTP
12. Dr. B.P. Singh ME
13. Dr. R.K. Ray MME
14. Dr. K.N. Rai MSP
15. Dr. G. Santhanam MATH
16. Dr. M.S. Kalra NET
17. Dr. G. Sengupta PHY
18. Dr. Prashant Kumar M.Des.

(d) STUDENTS’ SENATE NOMINEES :
1. Yogesh Verma 98419 E-209/1
2. Parth Sarathi Mukherjee 99259 B-202/1
3. Jayesh Gaur Y0149 250/2
4. Kumar Kapil Y1189 355/3

SENATE STANDING COMMITTEES :
[From 01.10.2003 To 30.09.2004]

(1) SENATE EDUCATIONAL POLICY COMMITTEE :
(a) MEMBERS (EX-OFFICIO) :
1. Chairman, Senate : Chairman
2. Chairman, SPGC : Dr. YVC Rao, CHE
   [From 01.10.2003 to 19.04.2004]
   : Dr. Sanjeev Garg, CHE
   : Dr. Mukesh Sharma, CE
   [From 22.04.2004 to 05.05.2004]
   : Dr. RK Sullerey, AE
   [From 06.05.2004 to 30.09.2004]
3. Chairman, SUGC : Dr. CS Upadhyay, AE

(b) SENATE NOMINEES :
1. Dr. S. Biswas CSE
2. Dr. R.K. Thareja    PHY    : Convenor
3. Dr. L. Krishnan    HSS

(c) STUDENTS’ SENATE NOMINEES:
1. Ms. Karishma Jain    (Y0160),    G-216/GH
2. Mr. Gajera C Ravjibhai    (Y211805),    H-306/IV

(2) SENATE ELECTIONS COMMITTEE:
SENATE NOMINEES:
1. Dr. Surajit Sinha    HSS
2. Dr. V. Eswaran    ME    : Chairman
3. Dr. M. Harbola    PHY

(3) SENATE LIBRARY COMMITTEE:

(a) LIBRARY:
Librarian

(b) SENATE NOMINEES:
1. Dr. A. Joshi    EE
2. Dr. D. Kundu    MATH
3. Dr. V. Ravi Shankar    PHY
4. Dr. S. Guha    CE

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES:
1. Dr. D. Das    AE
2. Dr. R. Sankaramakrishan    BSBE
3. Dr. Nishith Verma    CHE
4. Dr. V.K. Yadav    CHM
5. Dr. Rajiv Sinha    CE
6. Dr. Sanjeev Saxena    CSE    : Chairman
7. Dr. Nandini Gupta    EE
8. Dr. Mini Chandran    HSS
9. Dr. Anoop Singh   IME
10. Dr. S. Sivaparakasam    LTP
11. Dr. A. Sengupta    ME
12. Dr. R.K. Dube    MME
13. Dr. Y.N. Mohapatra    MSP
14. Dr. V. Raghavendra    MATH
15. Dr. A. Sengupta    NET
(d) STUDENTS’ SENATE NOMINEES:
1. Ms. Karishma Jain (Y0160), G-216/GH
2. Mr. Rohit Khare (Y1303), A-121/VI

(4) SENATE POST-GRADUATE COMMITTEE:
(a) MEMBER (EX-OFFICIO):
Dr. Binayak Rath, HSS

(b) SENATE NOMINEE:
1. Dr. U. Das EE

(c) NOMINEES OF DEPARTMENTS/PROGRAMMES:
1. Dr. R.K. Sullersey AE
2. Dr. S. Ganesh BSBE
3. Dr. Y.V.C. Rao CHE: Chairman
4. Dr. T. Chakraborty CHM
5. Dr. Saumyen Guha CE
6. Dr. Mukesh Sharma EEMP
7. Dr. Somenath Biswas CSE
8. Dr. Laxmidhar Behra EE
9. Dr. M. Jha HSS
10. Dr. Sanjeev Swami IME
11. Dr. Harshwardhan Wanare LTP
12. Dr. N.V. Reddy ME
13. Dr. D. Gupta MME
14. Dr. K.N. Rai MSP
15. Dr. A.K. Maloo MATH
16. Dr. P. Munshi PHY
17. Dr. Prashant Kumar DES

(d) STUDENTS’ SENATE NOMINEES:
1. Mr. Brajesh Pandey (Y120963), H-218/IV
2. Mr. Ambarish Kunwar (Y110961), E1-314/IV
3. Mr. Gaurav Sharma (Y210409), E-203/VII
4. Mr. Ramesh Kumar Sonkar (Y3104118), A-209/V

(5) SENATE RULES COMMITTEE:
(a) MEMBER (EX-OFFICIO):

34
Parliamentarian of the Senate: Dr. Peeyush Chandra, MTH

(b) SENATE NOMINEES:

1. Dr. V. Bansal  MME
2. Dr. J. Kumar  MSP: Chairman
3. Dr. P. Chandra  MATH

(6) SENATE SCHOLARSHIPS & PRIZES COMMITTEE:

(a) MEMBERS (EX-OFFICIO):

- Head Institute Counselling Service: Dr. Onkar Dikshit, CE
- Chairman, APEC: Dr. RC Sharma, MME
- Dean of Students’ Affairs: Dr. C Venkatesan, AE

(b) SENATE NOMINEES:

1. Dr. Manohar Prasad  ME
2. Dr. D. Gupta  CSE
3. Dr. P.K. Bhattacharya  CHE
4. Dr. P. Bose  CE: Chairman

(c) STUDENTS’ SENATE NOMINEES:

1. Ms. Karishma Jain  (Y0160), G-216/GH
2. Mr. Vyom Kr. Gupta  (Y1409), 162/II
3. Mr. Sandeep Gupta  (Y1316), 162/II

(7) SENATE STUDENTS’ AFFAIRS COMMITTEE:

(a) MEMBERS (EX-OFFICIO):

- Head, Institute Counselling Service: Dr. Onkar Dikshit, CE
- Chairman, APEC: Dr. RC Sharma, MME
- Representative of COW: Dr. D Bahuguna, MTH
- Dean of Students’ Affairs: Chairman, Ex-Officio

(b) SENATE NOMINEES:

1. Dr. A. Chaturvedi  EE
2. Dr. N. Mishra  MATH
3. Dr. B.N. Banerjee  ME

(c) STUDENTS’ SENATE NOMINEES:

1. Ms. Karishma Jain  (Y0160), G-216/GH
2. Mr. Rahul Luthra  (Y0255), B-101/I
3. Mr. Aditya Kumar (Y0022), A-115/I
4. Mr. V. Shrreeniwas Iyer (Y211128), E-115/IV

(8) SENATE UNDERGRADUATE COMMITTEE:

(a) MEMBER (EX-OFFICIO):

Dr. Sanjay Mittal, AE

SENATE NOMINEE:

1. Dr. B. Datta

NOMINEES OF DEPARTMENTS/PROGRAMMES:

1. Dr. C.S. Upadhyay AE : Chairman
2. Dr. K. Subramaniam BSBE
3. Dr. R.P. Singh CHE
4. Dr. S. Verma CHM
5. Dr. Vinay Kumar Gupta CE
6. Dr. Malay Chaudhuri EEMP
7. Dr. Deepak Gupta CSE
8. Dr. A.R. Harish EE
9. Dr. Achla Raina HSS
10. Dr. A.P. Sinha IME
11. Dr. Asima Pradhan LTP
12. Dr. P.K. Panigrahi ME
13. Dr. R.C. Sharma MME
14. Dr. Jitendra Kumar MSP
15. Dr. G. Santhanam MATH
16. Dr. M.S. Kalra NET
17. Dr. S. Raychaudhuri PHY
18. Mr. Satyaki Roy DES

STUDENTS’ SENATE NOMINEES:

1. Mr. Harish Awasthi (Y2163), 351/II
2. Mr. Ravi Kumar (Y1287), A-119/VI
3. Mr. Rahul Luthra (Y0255), B-101/I
4. Mr. Pradeep Kumar (Y2516), E-103/V
The Faculty

There are thirteen departments and four interdisciplinary programmes offering degrees at various levels in the Institute.

The faculty strength of the Institute as on March 31, 2004 was 304. Out of these 18 are shared by two departments on a half time basis. There were also 44 Research Engineers/Scientific Officers and Design Engineers, who are treated at par with faculty, on March 31, 2004. 22 faculty members retired/resigned/expired during the period. The Institute also had a number of Visiting Faculty members: 10 Visiting Faculty and 2 Adjunct Faculty joined and 5 left during the year. The Visiting/Adjunct Faculty contribute significantly and they also get an opportunity to know the Institute. In general the channel of having Visiting Faculty has been appreciated.

Two Research Associates were appointed during the year. The Research Associates stay for a period of six months to two years. The presence of Research Associates, who are young and have obtained Ph.D degree in the recent past, is an asset to the departmental research activities.

AEROSPACE ENGINEERING DEPARTMENT

SANCTIONED STRENGTH : 20
EXISTING STRENGTH : 18

PROFESSOR  (Rs.18400-500-22400)

1. 3161  Krishna Kumar
2. 3162  Vijay Gupta
3. 3159  K Ghosh
4. 1798  R K Sullerey
5. 4041  Dayanand Yadav
6. 4458  E Rathakrishnan
7. 4694  C Venkatesan
8. 4581  T K Sengupta
9. 4285  Sudhir Kamle
10. 4664  Kamal Poddar
11. 4696  Sanjay Mittal

ASSOCIATE PROFESSOR  (Rs.16400-450-20000)
1. 1830 V K Gupta
2. 4660 Ashish Tewari
3. 4709 A K Ghosh

ASSISTANT PROFESSOR  (Rs.12000-420-18300)
1. 4733 D P Mishra
2. 4785 C S Upadhyay
3. 4958 Abhijit Kushari
4. 4993 Debopam Das

BIOLOGICAL SCIENCE & BIO-ENGINEERING

SANTIONED STRENGTH : 6+1

PROFESSOR  (Rs.18400-500-22400)
1. 4959 Pradip Sinha

ASSISTANT PROFESSOR  (Rs.12000-420-18300)
1. *4876 R Gurunath
2. 5005 R Sankararamakrishnan
3. 5009 K Subramaniam
4. 5020 Subramaniam Ganesh
5. 5023 Balaji Prakash
6. 5090 Sandeep Kumar

CHEMICAL ENGINEERING DEPARTMENT

SANTIONED STRENGTH : 32
EXISTING STRENGTH : 17

PROFESSOR  (Rs.18400-500-22400)
1. 3113 S K Gupta
2. 2432 Anil Kumar
3. 3314 Deepak Kunzru
4. 3064 J P Gupta
5. 2006 Y V Chalapati Rao
6. 3604 D P Rao
7. 1197 R P Singh
8. 3754 P K Bhattacharya
9. 4244 R P Chhabra
10. 4045 Ashok Khanna
11. 4562 Ashutosh Sharma

ASSOCIATE PROFESSOR  (Rs.16400-450-20000)
1. 4750 Goutam Deo
2. 4794 Nishith Verma
CHEMISTRY DEPARTMENT

SANTIONED STRENGTH : 30
EXISTING STRENGTH : 26+1

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. 5011 V Shankar
2. 5016 Nitin Kaistha
3. 5021 Sanjeev Garg
4. 5064 Rajdip Bandyopadhyaya

PROFESSOR (Rs.18400-500-22400)
1. 3827 N Sathyamurthy
2. 3791 S Sarkar
3. 3990 B D Gupta
4. 4008 Y D Vankar
5. 4325 T K Chandrashekar
6. 4394 V Chandrasekhar
7. 4448 R N Mukherjee
8. 4462 P K Bharadwaj
9. 4724 (Ms) H Ila
10. 4047 N S Gajbhiye
11. 3112 P Gupta Bhaya
12. 4460 S Manogaran
13. 4583 Veejendra K Yadav
14. 4596 Vinod K Singh
15. 4676 Amalendu Chandra

ASSOCIATE PROFESSOR (Rs.16400-450-20000)
1. 4699 Tapas Chakraborthy
2. 4759 S S Manoharan
3. 4746 Faiz Ahmed Khan
4. 4760 K Srihari
5. 4789 Sandeep Verma
6. 4816 J N Moorthy
7. 5071 Debabrata Goswami

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. *4876 R Gurunath
2. 5024 Manas Kumar Ghorai
3. 5038 Jitendra K Bera
4. 5056 M L N Rao
**LECTURER**
1. 5091 Anantharaman Ganapathi

**CIVIL ENGINEERING DEPARTMENT**

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<thead>
<tr>
<th>Position</th>
<th>Name</th>
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<tr>
<td>1. 2309</td>
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<td>B R Marwah</td>
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<td>3. 3462</td>
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<td>P K Basudhar</td>
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<td>5. 4209</td>
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<td>6. 4399</td>
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<td>11. 4464</td>
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<td>12. 4799</td>
<td>Mukesh Sharma</td>
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<td>13. 4657</td>
<td>C V R Murty</td>
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<td>ASSOCIATE PROFESSOR (Rs.16400-450-20000)</td>
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<td>1. 4690</td>
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<td>2. 4798</td>
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<td>3. 4662</td>
<td>Onkar Dikshit</td>
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<td>4. 4663</td>
<td>Partha Chakroborty</td>
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<td>5. 4695</td>
<td>Rajiv Sinha</td>
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<td>Soumyen Guha</td>
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<td>7. 4775</td>
<td>Purnendu Bose</td>
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<td>ASSISTANT PROFESSOR (Rs.12000-420-18300)</td>
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<td>1. 4793</td>
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<tr>
<td>2. 4871</td>
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<td>3. 4978</td>
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<td>4. 4995</td>
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<td>5. 5026</td>
<td>Bharat Lohani</td>
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<td>6. 5057</td>
<td>Sachidanand Tripathi</td>
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<td>7. 5079</td>
<td>Pranab Kumar Mohapatra</td>
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</tbody>
</table>
LECTURER
1. 5037 Nihar Ranjan Patra

COMPUTER SCIENCE & ENGINEERING

SANCTIONED STRENGTH : 18
EXISTING STRENGTH : 19 + 2 HT

PROFESSOR (Rs.18400-500-22400)
1. *3858 S G Dhande
2. *3541 R M K Sinha
3. 3972 Somenath Biswas
4. 4297 H C Karnick
5. 4540 Pankaj Jalote
6. 4370 T V Prabhakar
7. 4563 S K Aggarwal
8. 4490 Sanjeev Saxena
9. 4628 Rajat Moona
10 4754 Manindra Agrawal
11. 4627 Amitabha Mukerjee
12. 4300 Ratan Kumar Ghosh
13. 4385 Phalguni Gupta
14. 4645 Ajai K Jain
15. 4668 Dheeraj Sanghi

ASSOCIATE PROFESSOR (Rs.16400-450-20000)
1. 5010 Shashank K Mehta
2. 4722 Deepak Gupta
3. 4934 Anil Seth

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. 4762 Sumit Ganguly
2. 5051 Bhaskaran Raman
3. 5081 Pabitra Mitra

ELECTRICAL ENGINEERING

SANCTIONED STRENGTH : 53
EXISTING STRENGTH: 32 + 2 HT

PROFESSOR (Rs.18400-500-22400)
1. 2391 Vishwanath Sinha
2. 3742 S R Doradla
3. *3541 R M K Sinha
4. 3927 Avinash Joshi
5. 3199 Ravindra Arora
6. 4046 K R Srivathsan
7. 4292 G C Ray
8. 4293 Arindam Ghosh
9. 4326 M Sachidananda
10. 4495 S C Srivastava
11. 4667 Anjan Kumar Ghosh
12. 4486 Prem Kumar Kalra
13. 4691 Shafi Qureshi
14. 3873 (Ms) Sumana Gupta
15. 4372 Govind Sharma
16. *4687 Utpal Das
17. 4566 A K Dutta
18. 3999 Joseph John
19. 4652 Animesh Biswas
20. 4478 Pradip Sircar

ASSOCIATE PROFESSOR (Rs.16400-450-20000)
1. 4489 R K Bansal
2. 4670 Baquer Mazhari
3. 4745 S Umesh
4. 4827 A K Chaturvedi
5. 5003 S N Singh
6. 4776 Shyama P Das

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. 4771 Yatindra N Singh
2. 4833 K S Venkatesh
3. 4935 Motwani Ravi Hiranand
4. 4938 K Vasudevan
5. 4988 Laxmidhar Behera
6. 5012 Parthasarathi Sensarma
7. 5013 A R Harish
8. 5015 (Ms) Nandini Gupta

HUMANITIES & SOCIAL SCIENCES

SANTIONED STRENGTH : 31
EXISTING STRENGTH : 21+1

PROFESSOR (Rs.18400-500-22400)
1. 2278 T V S Ramamohan Rao
2. 3838 (Ms) Lilavati Krishnan
3. 3989 Binayak Rath
4. 3983 A K Sharma
5. 4373 K K Saxena
6. 4016 A K Sinha
7. 3837 Amit Ray
8. 4375 B H Boruah
9. 4791 B K Pattnaik
10. 4729 G Neelakanthan

ASSOCIATE PROFESSOR (Rs.16400-450-20000)
1. 4488 Surajit Sinha
2. 4700 (Ms) Achla M Raina
3. 4702 (Ms) Shikha Dixit

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. 4773 Munmun Jha
2. 4774 C A Tomy
3. 4927 (Ms) Mini Chandran
4. 4957 (Ms) Suchitra Mathur
5. 5075 P M Prasad
6. 5076 T Ravichandran
7. 5078 Sanjay Kumar Singh

LECTURER (Rs.10000-325-15200)
1. 4976 Satyaki Roy
2. 5077 Amman Madan

INDUSTRIAL & MANAGEMENT ENGINEERING

SANTIONED STRENGTH : 10
EXISTING STRENGTH : 14

PROFESSOR (Rs.18400-500-22400)
1. 3432 A K Mittal
2. 3977 N K Sharma
3. 4380 T P Bagchi
4. 3792 Kripa Shanker
5. 4042 Arun P Sinha
6. 4525 R R K Sharma
7. 4961 Jayanta Chatterjee

ASSOCIATE PROFESSOR (Rs.16400-450-20000)
1. 4701 Rahul Varman

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. 4830 Sanjeev Swami
2. 4865 (Ms) Veena Bansal
3. 4968 Anoop Singh
4. 5018 Rohit Varman
5. 5031 Parthasarathy Ramachandran
6. 5073 Raghu Nandan Sengupta

MATERIALS & METALLURGICAL ENGINEERING

SANTIONED STRENGTH : 32
EXISTING STRENGTH: 21 + 1 HT

PROFESSOR (Rs.18400-500-22400)
1. 1932 S P Mehrotra
2. 3752 R K Ray
3. *3545 K N Rai
4. 3845 R C Sharma
5. 3846 Shant P Gupta
6. 3763 R K Dube
7. 4182 Brahma Deo
8. 4245 S C Koria
9. 4524 S Bhargava
10. 4382 Dipak Mazumdar
11. 3195 Virendra Bansal
12. 4625 V S R Murthy
13. 4565 Rajiv Shekhar
14. 4597 Sandeep Sangal
15. 4571 R Balasubramaniam
16. 4665 Barada K Mishra

ASSOCIATE PROFESSOR (Rs.16400-450-20000)
1. 4790 Deepak Gupta
2. 4796 (Ms) Monica Katiyar

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. 4919 Anish Upadhyaya
2. 4977 Bikaramjit Basu
3. 5034 Ashish Garg
4. 5072 Gauthama

MATHEMATICS DEPARTMENT
SANTIONED STRENGTH : 36
EXISTING STRENGTH : 32

PROFESSOR  (Rs.18400-500-22400)
1.  2078  U B Tewari
2.  3419  M R Sridharan
3.  2153  P C Joshi
4.  2395  (Ms) Prabha Sharma
5.  3407  R K S Rathore
6.  3772  (Ms) Manjul Gupta
7.  3739  M K Kadalbajoo
8.  3773  Prawal Sinha
9.  3776  G P Kapoor
10. 4058  Peeyush Chandra
11. 4074  V Raghavendra
12. 3824  I D Dhariyal
13. 4290  (Ms) Shobha Madan
14. 4584  Debasis Kundu
15. 4449  Pravir Kumar Dutt

ASSOCIATE PROFESSOR  (Rs.16400-450-20000)
1.  1642  Ashvini Kumar
2.  4707  B V Rathish Kumar
3.  4782  D Bahuguna
4.  4726  Neeraj Misra
5.  4656  P Shunmugaraj
6.  4734  Arbind Kumar Lal
7.  4751  Srikanth K Iyer

ASSISTANT PROFESSOR  (Rs.12000-420-18300)
1.  4537  (Ms) Aparna Dar
2.  4781  (Ms) Mohua Banerjee
3.  4803  Alok Kumar Maloo
4.  4822  G Santhanam
5.  4832  (Mrs) Rama Rawat
6.  4870  S Ghorai
7.  4930  Swagato Kumar Ray
8.  5029  Joydeep Dutta
9.  5036  Shalabh
10. 5053  Rukmini Dey

MECHANICAL ENGINEERING

SANTIONED STRENGTH : 42
EXISTING STRENGTH : 30 + 3 HT
PROFESSOR (Rs.18400-500-22400)
1. 2217 S N Bandyopadhyay
2. 2265 A K Mallik
3. *3665 Ashok Sengupta
4. *3858 S G Dhande
5. 3764 Prashant Kumar
6. 3759 B N Banerjee
7. 3862 M S Kalra
8. 4093 V K Jain
9. 4224 N N Kishore
10. 4286 Himanshu Hatwal
11. 4210 P M Dixit
12. 1531 K K Saxena
13. 4398 K Muralishar
14. 4560 Gautam Biswas
15. 4061 Prabhat Munshi
16. 4810 B P Pundir
17. 4452 S K Choudhury
18. 4459 N S Vyas
19. 4482 Vinayak Eswaran
20. 4650 Kalyanmoy Deb
21. 4288 P S Ghoshdastidar

ASSOCIATE PROFESSOR (Rs.16400-450-20000)
1. 4788 Subrata Sarkar
2. 4801 P K Panigrahi

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. 4779 Bhaskar Dasgupta
2. 4823 V Venkata Reddy
3. 4890 Bishakh Bhattacharya
4. 4931 Avinash Kumar Agarwal
5. 4956 Anupam Saxena
6. 5014 Sumit Basu
7. *4928 Kamal K Kar
8. 5022 Ashish Datta
9. 5054 P Venkitanarayanan
10. 5074 J Ramkumar

PHYSICS

SANTIONED STRENGTH : 38
EXISTING STRENGTH : 29 + 1 HT
MATERIALS SCIENCE PROGRAMME

SANCTIONED STRENGTH : 06
EXISTING STRENGTH : 02 + 2 HT

PROFESSOR (Rs.18400-500-22400)
1. * 3545 K N Rai
ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. *4928 Kamal K Kar

LASER TECHNOLOGY PROGRAMME
SANTIONED STRENGTH :
EXISTING STRENGTH : + 02 HT

PROFESSOR (Rs.18400-500-22400)
1. *4687 Utpal Das

ASSISTANT PROFESSOR (Rs.12000-420-18300)
1. *4679 (Ms) Asima Pradhan

NUCLEAR ENGG & TECHNOLOGY PROGRAMME
SANTIONED STRENGTH :
EXISTING STRENGTH: + 1 HT

PROFESSOR (Rs.18400-500-22400)
1. 3665 Ashok Sengupta

DESIGN PROGRAMME
SANTIONED STRENGTH
EXISTING STRENGTH : +1 HT
1. 4976 Satyaki Roy

While Nuclear Engineering & Technology and Environmental Engineering Management interdisciplinary programmes offer separate postgraduate degrees for administrative purpose these are under the administrative control of Mechanical Engineering and Civil Engineering Departments respectively.

LIST OF ACADEMIC STAFF AS ON MARCH 31, 2004

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Name &amp; Designation (Ms./Shri/Dr)</th>
<th>Department/Programme</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>Chaturi Singh, Research Engineer Gr-II</td>
<td>NWTF</td>
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<tr>
<td>2.</td>
<td>Alok Gupta, Research Engineer Gr-II</td>
<td>A E</td>
</tr>
<tr>
<td>3.</td>
<td>K K Soundra Pandian, Research Engineer Gr-II</td>
<td>M E</td>
</tr>
<tr>
<td>4.</td>
<td>Rajeev Gupta, Senior Research Engineer</td>
<td>A E (NWTF)</td>
</tr>
<tr>
<td>5.</td>
<td>Sushmit Sen, Senior Research Engineer</td>
<td>Robotics</td>
</tr>
</tbody>
</table>
6. M N Mungole, Senior Research Engineer M M E  
7. Ram Prakash Gupta, Senior Research Engineer E E  
8. Raghuvir S. Anand, Senior Research Engineer E E  
9. Anjali V Kulkarni, Senior Research Engineer Mechatronics  
10. Aurobinda Chatterjee, Senior Research Engineer M E  
11. Amitabha Roy, Principal Research Engineer E E  
12. Vishal Saxena, Principal Research Engineer E E  
13. Brajesh Chandra, Principal Research Engineer A E (NWTF)  
14. V Raghuram, Principal Research Engineer M E  
15. Shobhit Das, Chief Engineer A E  
17. A L Bhavsar, Scientific Officer Gr.I CHEM  
18. K K Bajpai, Senior Scientific Officer C E  
19. K V Rao, Principal Scientific Officer ACMS  
20. Sanjay Gupta, Chief Scientific Officer ACMS  
21. Bansi Lal, Chief Scientific Officer PHY/LTP  
22. Prem Chand, Chief Scientific Officer EPR/PHY  
23. Leela Iyengar, Chief Scientific Officer Chemistry  
24. H P S Parihar, Computer Engineer Gr.II CC  
25. Sanjeev Shukla, Computer Engineer Gr.II CC  
26. Md K Ahmad, Computer Engineer Gr.I CC  
27. Anju Tewari, Computer Engineer Gr.I CC  
28. Shikha M Jalote, Senior Computer Engineer CC  
29. Navpreet Singh, Senior Computer Engineer CC  
30. B M Shukla, Senior Computer Engineer CC  
31. Md Aftab Alam, Senior Computer Engineer CC  
32. Brajesh Pande, Senior Computer Engineer CC  
33. Gopesh Tewari, Senior Computer Engineer CC  
34. Soma Sengupta, Senior Computer Engineer CC  
35. R Tewari, Operation Manager CC  
36. Y D S Arya, Principal Computer Engineer CC  
37. N P Roberts, Principal Computer Engineer CC  
38. K S Singh, Principal Computer Engineer CC  
39. Umesh Chandra, Senior Pilot Instructor AE  
40. Vipul Mathur, Aircraft Maintenance Engineer AE  
41. Dr. Bhooshan Lal, Librarian P K Kelkar Lib  
42. Mr. S K Srivastava, Deputy Librarian P K Kelkar Lib  
43. Mr. Rajeshwar Misra, Deputy Librarian P K Kelkar Lib  
44. Mr. S K Bose, Deputy Librarian P K Kelkar Lib
AWARDS AND HONOURS FOR THE YEAR (APRIL 01, 2003 TO MARCH 31, 2004)

Dr R N Mukherjee, Professor, Department of Chemistry has been elected a Fellow of the Royal Society of Chemistry.

Dr K Subramaniam, Assistant Professor, Department of BSBE has been chosen for the Wellcome International Senior Research Fellowship.

Dr Vinod K Singh, Professor, Department of Chemistry has been chosen as the recipient of the Bronze Medal of the Chemical Research Society of India for the year 2003.

Dr T K Chandrashekar, Professor, Department of Chemistry has been chosen the Professor Priyadarajan Ray Memorial Awardee of the Indian Chemical Society for the year 2002.

Dr Sanjay Mittal, Associate Professor, Department of Aerospace Engineering has been selected for the Swarnajayanti Fellowship 2003.

Dr F A Khan, Associate Professor, Department of Chemistry has been selected for the Swarnajayanti Fellowship 2003.

Dr Anish Upadhyaya, Assistant Professor, Department of MME has been invited to serve as the Editorial Advisory Board member for the Journal, “Transaction of the Indian Ceramic Society.”

Dr S S Katiyar has been re-appointed as Vice-Chancellor of CSJM University Kanpur for a period of 3 years w.e.f. 25-07-2003.

Dr. Manindra Agarwal, Professor in the Department of Computer Science and Engineering has received this year’s Bhatnagar Award in Mathematical Sciences

Dr. V. Chandrasekhar, Professor in the Department of Chemistry has received this year’s Bhatnagar Award in Chemical Sciences.

Dr. G. Ravindra Kumar, former P.D. student of Professor K.K. Sharma in the Department of Physics at IIT Kanpur has been chosen for this year’s Bhatnagar Award in Physical Sciences.

Dr. Neeraj Mishra, Professor in the Department of Mathematics has been selected as a recipient of the C.L. Chandna Award for Distinguished and Outstanding Contributions to Mathematics Research and Teaching in India for the year 2003.
Dr. Rajiv Sinha, Associate Professor in the Department of Civil Engineering has been selected for the National Mineral Award 2002.

Dr. H. Ila, Professor in the Department of Chemistry has been chosen the C.J. Ghosh Memorial Lecturer for the year 2002 by the Indian Chemical Society. Dr. Ila and her husband Professor Junjappa have received this year’s Chairman’s Award of Astrazeneca Research Foundation of India.

Dr. Ashutosh Sharma, Professor in the Department of Chemical Engineering has been elected a Fellow of the Indian National Science Academy.

Dr. Gautam Biswas, Professor in the Department of Mechanical Engineering, Dr. C. Venkatesan, Professor in the Department of Aerospace Engineering, Dr. Ashutosh Sharma, Professor in the Department of Chemical Engineering and Dr. Manindra Agarwal, Professor in the Department of Computer Science and Engineering have been elected the Fellow of the Indian National Academy of Engineering.

Dr. S. Sundar Manoharan, Associate Professor in the Department of Chemistry has been chosen for the Global Innovator Award which will be presented to him in MIT by the end of November.

Dr. S.P. Das, Associate Professor in the Department of Electrical Engineering and Dr. Bhaskar Dasgupta, Assistant Professor in the Department of Mechanical Engineering have been chosen for the Young Engineer Awards (2003).

Dr. Krishna Kumar, Professor in the Department of Aerospace Engineering and presently Director of MNNIT, Allahabad, has been chosen for this year’s Excellence in Aerospace education award by Aero. Society of India.

Dr. Avinash Agarwal, Assistant Professor in the Department of Mechanical Engineering has been invited to join the Editorial Board of Journal of Automobile Engineering, a journal published by the Institution of Mechanical Engineers, U.K.

Dr. Pankaj Jalote, Professor in the Department of CSE has been elected a Fellow of IEEE, USA

Dr. Bikramjit Basu, Assistant Professor in the Department of Materials and Metallurgical Engineering has been chosen for this year’s “RL Thakur Memorial Award” of the Indian Ceramic Society. He has been chosen for the award “in recognition of his valuable contributions in the field of Materials Science”.

Dr. T.K. Chandrashekar, Professor in the Department of Chemistry and presently Director of RRL, Trivandrum, has been chosen for this year’s CHEMITO award.
Dr. D. Chowdhury, Professor in the Department of Physics for being elected a Fellow of the Indian Academy of Sciences, Bangalore.

Dr. D.P. Mishra, Assistant Professor in the Department of Aerospace Engineering has been elected as a member of the executive committee of Combustion Institute (IS).

Dr. V.K. Singh, Professor in the Department of Chemistry for being chosen for “Goyal Prize for Young Scientist” in Chemistry.

In the recently held 6th National Symposium of the Chemical Research Society of India, the following awards went to the faculty and students of the Chemistry department:
Young Chemist award to Professor J.N. Moorothy, 2 of the 6 best poster awards to Madhavaiah (a Ph.D student working under the guidance of Dr. S. Verma) and Hare Krishnan (a Ph.D student working under the guidance of Dr. R. Gurunath.

BOOKS PUBLISHED
Dr. TVS Ramamohan Rao, Professor in the Department of HSS has written a book entitled CONTRACT ECONOMICS by using QIP funds. This book is published by New Age International (P) Limited, India.

Dr. S.D. Joglekar, Professor in the Department of Physics has written and submitted a manuscript of Mathematical Physics Volume II by using QIP funds.

Dr. Gautam Biswas, Professor in the Department of Mechanical Engineering has released the second edition of the book, “Introduction to Fluid Mechanics and Fluid Machines”. This book is published by Tata McGraw-Hill.

Dr. V.K. Jain, Professor in the Department of Mechanical Engineering has been appointed as a member of the Editor Board of the International Journal of Manufacturing Technology and Management being published by Inderscience Publishers (UK).

The Textbook of Ordinary Differential Equations, 2nd Edition authored by Dr. V. Raghavendra, Professor in the Department of Mathematics and published by Tata McGraw-Hill has undergone 4th reprint.
EDUCATIONAL GOALS
The academic goals of the Indian Institute of Technology Kanpur from the viewpoint of its teaching programme are as follows:

- To prepare the students for the highest level of excellence in science, engineering science and technology and produce competent, creative and imaginative scientists and engineers.

- To promote a spirit of free and objective inquiry in different fields amongst the students and motivate them for higher studies and research.

- To foster inter-disciplinary approach. To promote the concept of virtual research departments by bringing together faculty and students into activities of mutual interest.

TEACHING PROGRAMMES
The Institute offers instructions in various disciplines of science and engineering, both at undergraduate (UG) and postgraduate (PG) levels. These programmes are planned and implemented by the Senate of the Institute through the Senate Undergraduate Committee (SUGC) and the Senate Post-graduate Committee (SPGC), respectively.

Undergraduate Programme
The four-year undergraduate programme consists of two parts having a duration of four semesters each. The first part is the core programme common to all students, and is carefully planned to give the students a strong base of basic education in mathematics, physics, chemistry, engineering sciences, technical arts, humanities and social sciences. The second part of the undergraduate programme consists of the professional courses and a project in the chosen branch of specialization from among the following disciplines.

i) Aerospace Engineering  
ii) Chemical Engineering  
iii) Civil Engineering  
iv) Computer Science & Engineering  
v) Electrical Engineering  
vi) Mechanical Engineering  
vii) Materials and Metallurgical Engineering
In addition, the Institute offers M Sc (Integrated) programme of five year duration including two years of core programme common to all undergraduate students in the following disciplines:

i) Chemistry  
ii) Mathematics & Scientific Computing  
iii) Physics  

The course structure in the Core Curriculum consists of large lecture classes, with tutorial and laboratory sessions in smaller sections. The professional programme is a bit more flexible and culminates in a project involving application of analysis and design techniques.

Most of the departments organize educational tours and training during the professional part of the programme.

**Two-Year M.Sc. Programme**  
A limited number of admissions are made to the Two-Year M.Sc. programme in the disciplines of Chemistry, Mathematics, Physics and Statistics. These are open to candidates with a B.Sc. degree in the relevant disciplines.

**Postgraduate Programme**  
The postgraduate programme is intended to prepare students to enter their professions with a perspective and breadth of knowledge related to the principal divisions of their respective fields of specialization through courses and specialized research experience. A postgraduate student is typically enrolled for three or four courses each semester until the student advances to a point where the principal requirements of the programme left to be fulfilled are research and thesis. Scheduled Caste / Scheduled Tribe candidates, who have passed the basic qualifying degree are eligible to apply and are considered for admission. Their admission, however, is made on the basis of their performance at the written test/interview, as usual. Their performance is not compared with the general category candidates for the purpose of admission.

**D.I.I.T. Programme**  
The Institute started a D.IIT. programme in Video Communications System with effect from first semester 1992-93. The duration of the Course is one year. The D.IIT. programme is based on existing PG Courses for M.Tech. programme. This programme is monitored by the Department of Electrical Engineering.

**Design Programme**  
The Institute offers inter-disciplinary programme in Design leading to the Master of Design degree. The M.Des. programme culminates in a dissertation submitted in partial fulfilment of the requirements for the degree.
Master of Technology (M.Tech.)

The M.Tech. programme culminates in a dissertation submitted in partial fulfilment of the requirements for the degree.

Doctor of Philosophy (Ph.D.)
The academic programmes leading to the Degree of Doctor of Philosophy (Ph.D.) exists in all the engineering departments and two interdisciplinary programmes, namely, Materials Science and Nuclear Engineering & Technology. The Ph.D. programmes also exist in Chemistry, Mathematics, Physics, Statistics, Economics, English, Philosophy, Psychology and Sociology.

The Ph.D. programme culminates in research on a selected topic leading to a thesis submitted in partial fulfillment of the requirements for the degree.

ADMISSION

Undergraduate
Admissions for all the B.Tech., M.Sc.(5-year integrated) and B.Tech.-M.Tech.(Dual Degree) programmes at IIT Kanpur for the academic session 2003-2004 were made by the Joint Admission Committee for all IITs and IT-BHU. The channels open for admission were:

  a) Joint Entrance Examination 2003

The Joint Entrance Examination (JEE) was held on May 25, 2003. In the Northern Zone (B): IIT Kanpur, candidates had registered.

The following offers of admission were made from IIT Kanpur:

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<th>Department/Disciplines</th>
<th>Total Number of Candidates-Direct Admission</th>
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<tr>
<td>PROGRAMMES</td>
<td>JEE-2003 PreparatoryCourse-2002</td>
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55
### Annual Report 2003-04

#### B.Tech.

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### Two-Year M.Sc. Programs

Admissions to the 2-year M.Sc. and M.Sc.-Ph.D. (Dual Degree) programmes were made, as usual, on the basis of written test and interview. The department/discipline wise admissions were made only in the 1st Semester. Admission statistics for the M.Sc.(2-year) and M.Sc.-Ph. D. (Dual Degree) Physics programmes during 2003-2004 are as under:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Department / Group</th>
<th>Numbers of Admissions Offered</th>
<th>Actual Number of Students Joined</th>
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The number of students admitted to the Postgraduate Programme in the First and Second Semesters 2003-2004 is given below:

### ENGINEERING

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<td>09</td>
</tr>
<tr>
<td>Civil Engg.</td>
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<td>Materials &amp; Met. Engg.</td>
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<td>I.M.E.</td>
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<td>N.E.T.</td>
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<td>E.E.M.</td>
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<td>00</td>
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<tr>
<td>D.I.I.T. (EE)</td>
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<tr>
<td>M.B.A. (IME)</td>
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### SCIENCES

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<tr>
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</table>
The total department/programme wise strength of the Post Graduate students during the year 2003-2004 is given below:

### ENGINEERING

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### SCIENCES

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**Strength of Undergraduate and Postgraduate Students during 2003 – 2004 – I:**

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<td>00</td>
<td>00</td>
<td>02</td>
<td>00</td>
<td>00</td>
<td>002</td>
</tr>
<tr>
<td>M.B.A. (I.M.E.)</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>60</td>
<td>00</td>
<td>00</td>
<td>060</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>1485</strong></td>
<td><strong>162</strong></td>
<td><strong>125</strong></td>
<td><strong>13</strong></td>
<td><strong>832</strong></td>
<td><strong>494</strong></td>
<td><strong>07</strong></td>
<td><strong>3118</strong></td>
</tr>
</tbody>
</table>

**GRADUATION**

During the year 2003-2004, 597 students completed the requirements for the award of B.Tech., M.Sc., D.I.I.T., M. B. A., M.Tech. and Ph.D. degrees as detailed below:

- B.Tech. 337
- M.Sc.(2 year & 5-year) 27 & 47 74
- M.B.A. 28
COURSES OF STUDY
The following Table gives a picture of the courses offered during 2003-2004 at the undergraduate as well as postgraduate level:

UNDERGRADUATE LEVEL

<table>
<thead>
<tr>
<th>Core Curriculum / Department Courses</th>
<th>First Sem.</th>
<th>Second Sem.</th>
<th>Summer</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Courses run by various departments</td>
<td>29</td>
<td>22</td>
<td>06</td>
<td>57</td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>08</td>
<td>12</td>
<td>00</td>
<td>20</td>
</tr>
<tr>
<td>B.S. B. E.</td>
<td>01</td>
<td>01</td>
<td>00</td>
<td>02</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>08</td>
<td>12</td>
<td>00</td>
<td>20</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>12</td>
<td>14</td>
<td>00</td>
<td>26</td>
</tr>
<tr>
<td>Computer Science &amp; Engineering</td>
<td>08</td>
<td>13</td>
<td>01</td>
<td>22</td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>11</td>
<td>10</td>
<td>01</td>
<td>22</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>11</td>
<td>15</td>
<td>01</td>
<td>27</td>
</tr>
<tr>
<td>Materials &amp; Metallurgical Engineering</td>
<td>15</td>
<td>12</td>
<td>01</td>
<td>28</td>
</tr>
<tr>
<td>Chemistry</td>
<td>11</td>
<td>10</td>
<td>00</td>
<td>21</td>
</tr>
<tr>
<td>Mathematics</td>
<td>28</td>
<td>33</td>
<td>05</td>
<td>66</td>
</tr>
<tr>
<td>Physics</td>
<td>19</td>
<td>16</td>
<td>00</td>
<td>35</td>
</tr>
<tr>
<td>Humanities &amp; Social Sciences</td>
<td>15</td>
<td>18</td>
<td>02</td>
<td>35</td>
</tr>
<tr>
<td>Industrial &amp; Management Engineering</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Nuclear Engineering &amp; Technology</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Materials Science Program</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Laser Technology Program</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>99</td>
</tr>
</tbody>
</table>

POSTGRADUATE LEVEL

<table>
<thead>
<tr>
<th>Core Curriculum / Department Courses</th>
<th>First Sem.</th>
<th>Second Sem.</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>12</td>
<td>18</td>
<td>30</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>12</td>
<td>12</td>
<td>24</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>17</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>Computer Science &amp; Engineering</td>
<td>14</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>Design (M.Des.)</td>
<td>05</td>
<td>03</td>
<td>08</td>
</tr>
</tbody>
</table>
Electrical Engineering  | 24  | 28  | 52  
Environmental Engg. & Management | 05  | 06  | 11  
Mechanical Engineering | 18  | 23  | 41  
Materials & Metallurgical Engineering | 19  | 13  | 32  
Chemistry | 13  | 15  | 28  
Mathematics / Statistics | 14  | 21  | 35  
Physics | 10  | 16  | 26  
Humanities & Social Sciences | 21  | 18  | 39  
Industrial & Management Engineering | 08  | 07  | 15  
Materials Science Program | 07  | 06  | 13  
Nuclear Engineering & Technology | 04  | 06  | 10  
Laser Technology Program | 03  | 03  | 06  

UNDERGRADUATE

The following statement shows promotion and detention of B.Tech., M.Sc. (Integrated) and B.Tech.-M.Tech. (Dual Degree), students in the academic year 2003-2004 (upto May, 2004):

<table>
<thead>
<tr>
<th>S.N</th>
<th>CONTENTS</th>
<th>1&lt;sup&gt;ST&lt;/sup&gt; Year</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Year</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; Year</th>
<th>4&lt;sup&gt;th&lt;/sup&gt; Year</th>
<th>5&lt;sup&gt;th&lt;/sup&gt; Year</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students strength at the beginning of the session</td>
<td>405</td>
<td>410</td>
<td>375</td>
<td>364</td>
<td>93</td>
<td>1647</td>
</tr>
<tr>
<td>2</td>
<td>Students strength at the beginning of the 2&lt;sup&gt;nd&lt;/sup&gt; semester</td>
<td>404</td>
<td>406</td>
<td>375</td>
<td>364</td>
<td>070</td>
<td>1619</td>
</tr>
<tr>
<td>3</td>
<td>Students joined in 2&lt;sup&gt;nd&lt;/sup&gt; semester on migration</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>0000</td>
</tr>
<tr>
<td>4</td>
<td>Number of students withdrawn or on leave on medical ground in 1&lt;sup&gt;st&lt;/sup&gt; and 2&lt;sup&gt;nd&lt;/sup&gt; semesters</td>
<td>002</td>
<td>002</td>
<td>003</td>
<td>005</td>
<td>001</td>
<td>0013</td>
</tr>
<tr>
<td>5</td>
<td>Number of students graduated</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>258</td>
<td>078</td>
<td>0336</td>
</tr>
<tr>
<td>6</td>
<td>Number of students dismissed due to poor performance in 1&lt;sup&gt;st&lt;/sup&gt; and 2&lt;sup&gt;nd&lt;/sup&gt; semesters</td>
<td>000</td>
<td>000</td>
<td>001</td>
<td>002</td>
<td>000</td>
<td>0003</td>
</tr>
</tbody>
</table>

The following statement shows promotion and detention of M.Sc. (2-year) and M.Sc. (Dual Degree) students in the academic year 2003-2004 (upto May, 2004):

<table>
<thead>
<tr>
<th>S.N</th>
<th>CONTENTS</th>
<th>1&lt;sup&gt;ST&lt;/sup&gt; Year</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Year</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students strength at the beginning of the session</td>
<td>74</td>
<td>64</td>
<td>138</td>
</tr>
<tr>
<td>2</td>
<td>Students strength at the beginning of the 2&lt;sup&gt;nd&lt;/sup&gt; sem.</td>
<td>73</td>
<td>57</td>
<td>130</td>
</tr>
<tr>
<td>3</td>
<td>No. of students dismissed in 1&lt;sup&gt;st&lt;/sup&gt; semester</td>
<td>00</td>
<td>00</td>
<td>000</td>
</tr>
</tbody>
</table>
Annual Report 2003-04

<table>
<thead>
<tr>
<th>No.</th>
<th>Action</th>
<th>1st Semester</th>
<th>2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>No. of students dismissed in 2nd semester</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>No. of students graduated in 1st semester</td>
<td>00</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>No. of students graduated in 2nd semester</td>
<td>00</td>
<td>42</td>
</tr>
<tr>
<td>5</td>
<td>Number of students dismissed due to continued absence from the programme</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

Following is the department-wise break-up of students who were awarded the degree at XXXVI Convocation held on 28.05.2004. Dr. Anil Kakodkar Chairman, Atomic Energy Commission and Secretary, Department of Atomic Energy, Govt. of India was the Chief Guest at the Convocation:

<table>
<thead>
<tr>
<th>DEPARTMENT / DISCIPLINE</th>
<th>B.Tech</th>
<th>M.Sc 5-Yr</th>
<th>M.Sc 2-Yr</th>
<th>DIIT</th>
<th>MBA</th>
<th>M.Tech</th>
<th>Ph.D</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engg.</td>
<td>17</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>02</td>
<td>01</td>
<td>20</td>
</tr>
<tr>
<td>Chemical Engg.</td>
<td>45</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>10</td>
<td>03</td>
<td>58</td>
</tr>
<tr>
<td>Civil Engg.</td>
<td>31</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>17</td>
<td>05</td>
<td>53</td>
</tr>
<tr>
<td>Comp. Sc. &amp; Engg.</td>
<td>51</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>05</td>
<td>01</td>
<td>57</td>
</tr>
<tr>
<td>Electrical Engg.</td>
<td>77</td>
<td>00</td>
<td>00</td>
<td>02</td>
<td>00</td>
<td>13</td>
<td>02</td>
<td>92</td>
</tr>
<tr>
<td>Env. Engg. &amp; Management</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>12</td>
<td>00</td>
<td>12</td>
</tr>
<tr>
<td>Mechanical Engg.</td>
<td>70</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>10</td>
<td>06</td>
<td>86</td>
</tr>
<tr>
<td>Mat. Sc. &amp; Met. Engg.</td>
<td>46</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>26</td>
<td>01</td>
<td>73</td>
</tr>
<tr>
<td>Industrial Management &amp; Engg.</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>28</td>
<td>02</td>
<td>02</td>
<td>32</td>
</tr>
<tr>
<td>Materials Science Prog.</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>06</td>
<td>00</td>
<td>06</td>
</tr>
<tr>
<td>Nuclear Engg. &amp; Tech. Prog.</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>09</td>
<td>00</td>
<td>09</td>
</tr>
<tr>
<td>Laser Technology Prog.</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>01</td>
<td>00</td>
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</tr>
<tr>
<td>Chemistry</td>
<td>00</td>
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<td>12</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>12</td>
<td>31</td>
</tr>
<tr>
<td>Mathematics</td>
<td>00</td>
<td>00</td>
<td>14</td>
<td>00</td>
<td>00</td>
<td>02</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Maths. &amp; Scientific Computing</td>
<td>00</td>
<td>13</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>13</td>
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<tr>
<td>Physics</td>
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<td>Statistics</td>
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<td>00</td>
<td>00</td>
<td>00</td>
<td>01</td>
<td>09</td>
</tr>
<tr>
<td>Humanities &amp; Soc. Sciences</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>04</td>
<td>04</td>
</tr>
<tr>
<td>TOTAL</td>
<td>337</td>
<td>27</td>
<td>47</td>
<td>02</td>
<td>28</td>
<td>113</td>
<td>45</td>
<td>597</td>
</tr>
</tbody>
</table>
Research & Development

As in the previous years, the Institute has maintained a healthy growth rate in research and development activities. 326 new projects for sponsored research, consultancy and testing have been awarded with a total funding commitment of Rs. 4500 lakh - an increase of almost 32% from the previous year.

IIT Kanpur has been entrusted to act as nodal agency for Technology Mission on rail safety initiated by the Ministry of Railways with a budget of Rs. 3300 lakh, in collaboration with Ministry of Human Resource Development and a consortium comprising of (i) academic and research institutions (ii) railways organizations and (iii) industry. Technology development in the areas of traction and rolling stock, tracks and bridges, signals and communications and fog vision instrumentation have been identified as the mission programs.

With the aim of bringing the benefits of information and communication design technologies to farmers and traders of agriculture commodities in this region, the Kanpur-Lucknow hub of Media Lab Asia has established a Digital Mandi and an experimental wireless VOIP phone based PCO extension counter at a nearby village. Technology developed at the Resource Center for Indian Languages has been transferred to eight centers for machine aided translation from English to Oriya, Bengali, Marathi, Assamese, Manipuri, Konkani, Urdu, Punjabi, Malayalam and Sanskrit. Software code compliance tool and software test coverage analyzer developed at the Department of Computer Science and Engineering have been commercialized by Centre for Reliability, Chennai, a laboratory of Ministry of Communication and Information Technology. A range-sensing, indoor, mobile robot equipped with micro-controller sub-system, laser range finder and wireless connectivity sub-system has been developed for BARC. This robot is capable of real time surveillance in hazardous environment.

The Department of Mathematics has developed a video re-focusing technology through digital mathematical processing, which compensates for the physical limitation of a camera. The processed images and video are much more crisp, live, non-straining to the eye and regain the scientific details necessary for a technical work. This technology is expected to make a significant change in different kinds of video communication. Many companies including Zee Television have shown interest in this technology.

The work done on nano-sciences at the Department of Chemistry has been recognized for the Global Indus Technovator Award 2003 given by India Business Club of Massachusetts Institute of Technology, USA.

Our faculty members are regularly providing consultancy services to major organizations such as TISCO, TELCO, Gas Authority of India Ltd., Hindustan Levers Limited, Hindustan Aeronautics Limited etc. In the year 2003-2004 interaction with the industry has increased
and many more industries have been added. General Motors has sponsored a project for studying the galvanic corrosion behavior of specific combination of light metal alloys. IIT Kanpur is conducting a study for gas phase nitration of organic and inorganic substances for Jubilant Organosys Ltd. Web-based energy audit and accounting software and trouble call management software for power distribution utilities developed at the Department of Electrical Engineering have been commercialized by Interra (India) Pvt. Ltd.

Many projects with direct relevance to society have been initiated. The Department of Physics has designed a number of innovative, unconventional inspiring experiments for changing the present blackboard-intensive Physics education at school level by do-yourself methodology. To disseminate quality education to all, e-classrooms have been established at Raipur and Bilaspur and training of forty five teachers has been completed under the IIT Kanpur- Government of Chattisgarh collaboration. Under the IIT Kanpur – Khadi and Village Industries Commission collaboration, two projects on design, development and fabrication of bio-gas filling pilot plant and design and development of a biodiesel pilot plant have been initiated. IIT Kanpur has embarked on a unique project to develop and apply point cloud technology and rapid proto-typing methodology for the three dimensional digital recording of the landmark monuments and other culturally significant artifacts of the National Heritage of India. A new electro-thermally heated jacket is being developed with immense importance for defense personnel.

With the awareness of the importance of protecting intellectual property, the number of patent applications have increased to fifteen as compared to ten patents filed in the last year. Some of these include a process for controlled synthesis of high molecule weight micron sized polymers, design of a high efficiency rotating packed bed suitable for distillation and absorption, and a tubular microwave sintering furnace with controlled atmosphere. IIT Kanpur has recently been awarded a US patent for magneto conductive polymer composites. These polymer blends have potential applications in avionic tubes and as flexible magnetic sensors. Another U.S. patent has been filed on polynomial time deterministic method for testing primality of numbers. This has wide ranging applications in cryptology.

For strengthening collaborations with the academic and research institutes as well as industries, IIT Kanpur has signed a number of MoUs with international and national bodies. Noteworthy of them are with: BARC, Mumbai and Board of Research in Nuclear Sciences of Department of Atomic Energy, Govt. of India with the main objective for development of a robust general purpose CFD code; the University of Allahabad for collaboration in areas related to cultural resource management; General Motors India Private Limited, Bangalore for conducting research and providing other services; Neurogen Corporation, USA with the objective of synthesizing complex organic chemicals. IIT Kanpur has signed MoUs with Yokohama National University, Japan, National University of Singapore, Mazandaran University of Science and Technology, Iran and Le Group Ecoles Des Mines (GEM), France for academic collaboration in different areas of science and engineering.
To strengthen the research infrastructure, the Institute has procured the following new equipment: laser scattering particle size analyzer; coincidence doppler positron annihilation radiation system; drill core scanner for magnetic susceptibility & natural gamma ray measurements; high pressure thin layer chromatography system; optical spectrum analyzer; 3-D surface profilometer to characterize material surfaces; gas chromatograph-mass spectrometer system equipment and an affymetrix scanner. The electron paramagnetic resonance system procured last year has been commissioned. As a recent initiative, the Institute has set-up a new ‘4i lab’ with the objective of facilitating design evolution into complete products. This facility is equipped with a CNC vertical milling center, CNC turning center, fused deposition modeling, rapid prototyping, and abrasive water jet cutting machine.

**MAJOR SPONSORED PROJECTS**

**COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A novel strategy for the site-specific generation of 4-keto abasic site in dna oligonucleotide</td>
<td>10.46</td>
</tr>
<tr>
<td>Multi-site coordination ligands supported on acyclic and cyclic-p-n compounds</td>
<td>12.46</td>
</tr>
<tr>
<td>Design &amp; development of new multicomponent coupling reaction</td>
<td>15.00</td>
</tr>
</tbody>
</table>

**DEPARTMENT OF ATOMIC ENERGY**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software for calculation of probability density function of the performance function using the advanced mean value methods</td>
<td>11.68</td>
</tr>
<tr>
<td>Intrinsic fluorescence of tissues for diagnosis of cancer</td>
<td>22.97</td>
</tr>
<tr>
<td>Development and characterisation of tib2 based materials for high temperature application</td>
<td>26.37</td>
</tr>
</tbody>
</table>

**DEPARTMENT OF INFORMATION TECHNOLOGY**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of photonic devices based on single crystal fibers</td>
<td>20.04</td>
</tr>
<tr>
<td>Pick packet v2-a gigabit network monitoring tool</td>
<td>60.00</td>
</tr>
</tbody>
</table>

**DEFENCE RESEARCH & DEVELOPMENT ORGANIZATION**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement of refractive index of turbid suspensions: design of a refractometer using optical fiber as sensor</td>
<td>15.00</td>
</tr>
<tr>
<td>Spintronics in magnetic thin films of transition metal oxides</td>
<td>19.59</td>
</tr>
</tbody>
</table>
Synthesis and measurement of optical non-linearity of organic and organometallic compounds 26.84
Multilayered electroceramic thin films 27.10
Uv laser and band gap engineered sensors based upon zno 41.46

### DEPARTMENT OF SCIENCE & TECHNOLOGY

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular genetics analyses of lafora's progressive myoclonus epilepsy in indian population</td>
<td>10.08</td>
</tr>
<tr>
<td>Development of toughened zirconia ceramics for tribological applications</td>
<td>10.51</td>
</tr>
<tr>
<td>Reinforced-hydroxyapatite coating on ti6a14v by sol-gel technique</td>
<td>10.86</td>
</tr>
<tr>
<td>Structural investigations of short telomeric dna stretches</td>
<td>11.68</td>
</tr>
<tr>
<td>Control of superheat in continuous casting molds through a hollow jet nozzle/a physical and mathematical model investigation</td>
<td>11.71</td>
</tr>
<tr>
<td>Investigations into mangetic abrasive finishing of plane surfaces</td>
<td>12.57</td>
</tr>
<tr>
<td>Study of potential fluctuations in amorphous silicon</td>
<td>12.97</td>
</tr>
<tr>
<td>Gene expression profiling &amp; gene network analysis using mathematical programming</td>
<td>16.36</td>
</tr>
<tr>
<td>Development of anisotropic ceramic dielectric resonator for miniature microwave circuit applications</td>
<td>17.74</td>
</tr>
<tr>
<td>Aziridine: a versatile building block in organic synthesis</td>
<td>21.98</td>
</tr>
<tr>
<td>Cyclopropanes as surrogates to molecules of potential interest. Application to selected natural products synthesis</td>
<td>22.57</td>
</tr>
<tr>
<td>Functional mimicry of copper oxidases: c-h bond activation by bioinspired nucleobase polymeric templates</td>
<td>24.00</td>
</tr>
<tr>
<td>Development of a humaniod robot for hazardous applications</td>
<td>24.06</td>
</tr>
<tr>
<td>Excess protons,electrons and metal atoms in hydrogen bonded nanoclusters: studies of structural, dynamical and electronic aspects through ab-initio molecular dynamics</td>
<td>24.48</td>
</tr>
<tr>
<td>Modular synthesis of cryptand-based nano structures</td>
<td>28.57</td>
</tr>
<tr>
<td>The role of reduced iron in contaminant transport, transformation &amp; degradation in engineered &amp; natural subsurface environments</td>
<td>29.82</td>
</tr>
<tr>
<td>Design and synthesis of organic photochromic systems, nlo and led materials</td>
<td>33.45</td>
</tr>
<tr>
<td>Gps measurements around bundelkhand cartonic block</td>
<td>40.17</td>
</tr>
<tr>
<td>Equipment for pseudo-dynamic facility</td>
<td>90.00</td>
</tr>
<tr>
<td>Tetrahalobicyclo [2.2.1] heptone &amp; tetrahalobicyclo [2.2.2] octone derivatives: stereoselective inextricable templates in natural product &amp; designed target synthesis</td>
<td>96.60</td>
</tr>
<tr>
<td>Investigation of instalities in unsteady bluff body flows</td>
<td>98.20</td>
</tr>
<tr>
<td>Fist program-2003</td>
<td>160.00</td>
</tr>
</tbody>
</table>
### KHADI VILLAGE INDUSTRY COMMISSION

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishment of technical interface</td>
<td>50.00</td>
</tr>
</tbody>
</table>

### MEDIA LAB ASIA

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel engine misturning director</td>
<td>15.40</td>
</tr>
<tr>
<td>E-pop everybody's platform for information processing</td>
<td>32.40</td>
</tr>
</tbody>
</table>

### MINISTRY OF HUMAN RESOURCE DEVELOPMENT

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated carbon fibers (acf) for the removal of co2 nox and sox by adsorption</td>
<td>11.00</td>
</tr>
<tr>
<td>Design and synthesis of novel glycopeptides and peptidomimetics as potentially therapeutic agents</td>
<td>11.00</td>
</tr>
<tr>
<td>Dr. Spintronics in nanostructured junctions of magnetic thin films</td>
<td>12.00</td>
</tr>
<tr>
<td>Modernization &amp; upgradation of art &amp; design studio for undergraduate curriculum development</td>
<td>12.00</td>
</tr>
<tr>
<td>Rainbow schlieren tomography measurements during Combustion of alternative gaseous fuels such as Hydrogen</td>
<td>14.00</td>
</tr>
<tr>
<td>Synthesis and characterization of nanopolymer (low density polyethylene)</td>
<td>15.00</td>
</tr>
<tr>
<td>Aluminium shear-link for passive control of seismic response of structure</td>
<td>15.00</td>
</tr>
<tr>
<td>Earthquake disaster mitigation</td>
<td>15.00</td>
</tr>
<tr>
<td>Membrane based effluent treatment process</td>
<td>15.00</td>
</tr>
<tr>
<td>Custom power and improvement of power quality at critical load centres in the distribution network</td>
<td>15.00</td>
</tr>
<tr>
<td>Dsm generation using high altitude satellite photos for identification and mapping of active tectonic landforms related to paleo-earthquake in Kumaon Himalaya</td>
<td>15.00</td>
</tr>
<tr>
<td>Structural investigation on bex, a gtp binding protein from bacillus subtilis</td>
<td>15.00</td>
</tr>
<tr>
<td>Modeling of human perception through eye-movement metrics and visual-motor control</td>
<td>15.00</td>
</tr>
<tr>
<td>Development of magnetic nano-structures using e-beam deposition for sensors</td>
<td>15.00</td>
</tr>
</tbody>
</table>
### Parallel synthesis of functional monomers and polymers: applications in catalysis and electrical conductance studies

- Project Title: Parallel synthesis of functional monomers and polymers: applications in catalysis and electrical conductance studies
- Amount: 15.00 Lakh

### Modernisation of sedimentological research facility

- Project Title: Modernisation of sedimentological research facility
- Amount: 15.00 Lakh

### Band gap engineered sensors and uv laser

- Project Title: Band gap engineered sensors and uv laser
- Amount: 16.00 Lakh

### Development of capacitance based micro-sensor for oil film thickness measurements

- Project Title: Development of capacitance based micro-sensor for oil film thickness measurements
- Amount: 16.00 Lakh

### Establishing an instructional laboratory for the courses entitled "high performance polymers and composites ms 616 and composite materials-me 727"

- Project Title: Establishing an instructional laboratory for the courses entitled "high performance polymers and composites ms 616 and composite materials-me 727"
- Amount: 17.00 Lakh

### An experimental study of low emission energy efficient burner

- Project Title: An experimental study of low emission energy efficient burner
- Amount: 19.00 Lakh

### Processing and characterisation of polymer nano-particulate composites

- Project Title: Processing and characterisation of polymer nano-particulate composites
- Amount: 19.00 Lakh

### Development of facility for materials and interfaces for gan based high temperature-high power electronic devices

- Project Title: Development of facility for materials and interfaces for gan based high temperature-high power electronic devices
- Amount: 20.00 Lakh

### Initiation grant-railway technology mission.

- Project Title: Initiation grant-railway technology mission.
- Amount: 20.00 Lakh

### Production of hydrogen for fuel cells by auto-thermal reforming of ethanol

- Project Title: Production of hydrogen for fuel cells by auto-thermal reforming of ethanol
- Amount: 20.00 Lakh

### Turning 802.11 inside-out: wireless networking for rural india

- Project Title: Turning 802.11 inside-out: wireless networking for rural india
- Amount: 20.00 Lakh

### Laboratory for chemical process synthesis, design and plantwide control

- Project Title: Laboratory for chemical process synthesis, design and plantwide control
- Amount: 20.00 Lakh

### Modernisation of ug laboratories of aerospace engg.

- Project Title: Modernisation of ug laboratories of aerospace engg.
- Amount: 20.00 Lakh

### Spectroscopic studies of inorganic, organic, organometallic and biological molecules and materials in the near and far ir region

- Project Title: Spectroscopic studies of inorganic, organic, organometallic and biological molecules and materials in the near and far ir region
- Amount: 20.00 Lakh

### Flow of non-newtonian liquids in micro-channels and metallic foams

- Project Title: Flow of non-newtonian liquids in micro-channels and metallic foams
- Amount: 21.00 Lakh

### Understanding and characterisation of nano scale forces in thin polymer films and particle adhesion/detachment

- Project Title: Understanding and characterisation of nano scale forces in thin polymer films and particle adhesion/detachment
- Amount: 23.00 Lakh

### WELLCOME TRUST

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification and characterization of genes involved in germ cell development in caenorhabditis elegans</td>
<td>152.34</td>
</tr>
</tbody>
</table>

### NAVAL RESEARCH BOARD

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active flow control by dynamic obstacles in propulsion applications</td>
<td>34.086</td>
</tr>
</tbody>
</table>

### MINISTRY OF INFORMATION TECHNOLOGY

- Project Title: Identification and characterization of genes involved in germ cell development in caenorhabditis elegans
- Amount: 152.34 Lakh
<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrated English to Hindi machine aided translation system</td>
<td>75.00</td>
</tr>
</tbody>
</table>

NEUROGEN INC.

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthesis of fragments (us$-157500)</td>
<td>72.00</td>
</tr>
</tbody>
</table>

GUJARAT STATE DISASTER MANAGEMENT AUTHORITY

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of building codes and preparation of commentary and hand books for gsdma gandhinagar</td>
<td>95.91</td>
</tr>
</tbody>
</table>

MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIIC-Electronic &amp; Animation Cells</td>
<td>10.00</td>
</tr>
<tr>
<td>Development of content delivery tools to enhance the existing experimental educational technology service</td>
<td>32.89</td>
</tr>
<tr>
<td>Multipurpose multimodal biometri systems for human identification</td>
<td>43.13</td>
</tr>
</tbody>
</table>

DEPARTMENT OF BIOTECHNOLOGY

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Amount (Lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer genomics in drosophila: areal time expression profiling of cancers of diverse genetic origin</td>
<td>167.4</td>
</tr>
</tbody>
</table>
Alumni Association Activities

The Alumni Association of IIT Kanpur organizes a number of activities for the present students and the Alumni. The activities for the Year 2003-04 are summarized here:

NOSTALGIA
The Alumni Association organized Nostalgia - 2003 on April 18, 2003 to bid farewell to the graduating students. The programme included a farewell speech by the Director and the Secretary of Alumni Association, presentation of mementoes, group photographs and a farewell dinner. The Student Gymkhana partially supported the activity.

YEAR BOOK
The graduating batch compiled a Year Book containing detailed information about their batch-mates. The Alumni Association contributed to the publication of the year book.

ANNUAL CONVENTION & SILVER JUBILEE REUNION OF THE CLASS-OF-79
The Annual Convention of Alumni Association and the Silver Jubilee Reunion of the Class-of-1979 were organized from January 4 to January 5, 2004. Over 150 alumni from all over the world, attended the annual convention with enthusiasm and nostalgia. The visiting alumni interacted with the students and the faculty, both formally and informally, and also visited the various Institute facilities and departments. The Class-of-1979 has committed to generate funds and the purpose is to be decided in due course of time. Like every year, the Director hosted a lunch in honour of the visiting alumni at his residence. The Institute also presented seven Distinguished Alumnus Awards to alumni who have excelled in their respective fields.

DISTINGUISHED ALUMNUS AWARD
Dr S G Dhande, Director IIT Kanpur constituted the following Distinguished Alumnus Award Evaluation Committee for the year 2003-04:

Professor S G Dhande, Director, IIT Kanpur Chairman
Prof SS Katiyar, Vice-Chancellor, CSJM University, Kanpur Member
Mr Sanjiv Shriya, Member
Dr R K Thareja, Professor of Physics, IIT Kanpur Member
Dr C Venkatesan, Dean of Students Affair, IIT Kanpur Member
Dr Sanjeev Bhargava, Secretary, Alumni Association Member-Secretary

The committee selected the following three alumni for the Distinguished Alumnus Award:

- **Mr Suresh Pandey** (BT/MME/65) Managing Director, Bokaro Steel Plant, Bokaro for his outstanding and all round contributions to the Steel Industry of India. 2004
• Mr Amitabh Srivastava (BT/EE/79) Microsoft Distinguished Engineer, Microsoft Corporation, USA for his outstanding and phenomenal contributions towards software development recognized by the international community. 2004

• Satyendra K Dubey (BT/CE/94) Deputy General Manager/ Project Director, Koderma Project Implementation Unit, National Highway Authority of India, awarded posthumously in recognition of his honesty, integrity, dedicated service and upright behavior in public life. 2004

Mr Suresh Pandey, Mr Dhananjay Dubey (Brother of Mr Satyendra K Dubey) received the award in person on January 4, 2004 during the Annual Alumni Convention while Mr Amitabh Srivastava could not attend the ceremony due to some other commitments.

ANNUAL GENERAL BODY MEETING
The Annual General Body Meeting (AGBM) was held in L-1 on January 4, 2004 at 16:00 Hrs. The meeting was chaired by Dr Sanjeev Bharagva, Secretary and he presented the annual report and Dr Sanjeev Swami, Treasurer presented the statement of accounts. The Elections for the New Executive Committee were also held.

The Executive Committee for the year 2004-06 constituted as follows:

President: Mr Atul Garg (BT/EE/79; CTO, Proactivenet)
Vice President: Mr Anurag Goel (BT/ME/71, Company Secretary, Anurag Goel & Associates) Secretary: Prof Ashok Khanna (BT/CHE/69; Professor, CHE, IIT Kanpur)
Treasurer: Prof Vinayak Eswaran (BT/ME/80; Professor, ME, IIT Kanpur)
Members
Mr Hemant Shah (BT/CHE/79; CEO, Uni-Design Jewellery India Pvt Limited)
Mr Yogesh Dayal (BT/EE/79; Vice President, IBM Global Services Limited)
Mr Ananta P Mukerji (BT/EE/80; CEO, Aviana Global Technologies)

Co-opted Member
Prof Sanjeev Bhargava (BT/ MME/75; Immediate Past Secretary AA, Professor & Head, MME, IIT Kanpur).
Mr Sanjiv Sahay (BT/EE/77; Immediate Past President AA, CEO, Asquare Inc.).

35th YEAR REUNION OF THE CLASS-OF-69
The reunion of the batch which completed thirty five years of graduation was held on December 27-28, 2003. Forty five alumni along with their family members came from all over the world to attend the reunion. The visiting alumni interacted with the students and the faculty and also visited various institute facilities and academic departments. Class-of-69 committed to contribute to the Institute in various ways. Like every year, the Director IIT Kanpur hosted a lunch in honour of the visiting alumni.
Several former faculty members were also invited for the occasion. They enjoyed the interaction with their former students. The programme included organization of an Alumni Archival Exhibition and Panel discussion.

**UMANG GUPTA DISTINGUISHED ALUMNI LECTURE SERIES**
Umang Gupta (BT/CHE/71) CEO Keynote Systems Inc. USA had give an endowment of US$ 15000 for starting the ‘Umang Gupta Distinguished Alumni Lecture Series’. Its inaugural lecture was delivered by Umang Gupta himself on December 15, 04 on ‘Road Less Traveled – the Journey of a Silicon Valley pioneer. On this occasion he received the Distinguished Alumnus Award which was conferred on him in the year 1997.

**KANPUR CHAPTER GET-TOGETHER**
IIT Kanpur Alumni Association Kanpur chapter get-together was also held on December 15, 03 around fifty alumni with their family members attended the get-together in which Mr Umang Gupta (BT/CHE/71; CEO, Keynote Systems Inc., USA) also joined in with the Prof S G Dhande, Director, IIT Kanpur, Prof G K Lal Director of Alumni Relations and many other distinguished alumni.

**NEWSLETTER**
The Alumni Association started an e-version of its Newsletter from the month of August which is being bimonthly mailed to all alumni via email. Till now 5 issues have been mailed and an overwhelming response has been received on it.
Central Facilities

P.K. KELKAR LIBRARY
P.K. Kelkar Library is housed, with all modern amenities, in a magnificent three-storied, separate building covering an area of approximate 6873 square meters. With the growth in the collection, the library is bursting at its seams. There is no scope for further addition and hence additional space is needed. A proposal for an Annex to the library has been approved. Its constructions is scheduled to start soon. Meantime, basement of the library, hitherto held by Graphic Arts has been made available to the library and we are shifting part of our collection there. P.K. Kelkar Library has been rendering essential support to the academic, research and development programmes of the Institute. The library remained open, as usual, on 358 days of the year, from 8:00 a.m. to 12:00 midnight on all working days; 9 a.m. to 12 midnight on Saturday; 9 a.m. to 5:30 p.m. on Sundays and Gazetted holidays, and for 24 hours during the three examinations each semester.

NEW ADDITIONS
A total number of 7998 volumes including 3741 books, 4257 bound volumes of journals were added to the collection during 2003-2004. A budget of Rs. 100 lakhs was fully utilized for purchase of books.

SUBSCRIPTION TO PERIODICALS AND BINDING
The Periodicals budget for 2003-2004 was Rs. 5.5 crores with additional grant of Rs.18.5 lacs made available by NBHM. The library subscribed to 1541 current periodicals for the year 2004. Of these 714 are print version, whereas 817 are print plus on-line and ten on-line only. The library added 4042 bound volumes to its periodicals holdings. Besides, 1541 books and old periodicals were also bound.

The grant of Rs. 18.5 lacs from National Board for Higher Mathematics was utilized towards subscription of periodicals for 2004 to meet the information needs in the area of Mathematics. Twenty periodicals titles are subscribed out of this budget.

CIRCULATION
During the year 2003-2004, 62156 publications were circulated for home study. As usual, a large number of books and journals from Reference, Text Book, Science & Technology, Humanities and Social Sciences areas were consulted by users within the library.

LIBRARY AUTOMATION
iitKLAS: The User Services module of the iitKLAS (IIT Kanpur Library Automation System) has been re-engineered from Oracle Forms to Web-based platform. Now the catalogue search, current contents, journal subscription queries can be accessed through web. Other modules of iitKLAS are being rewritten. Two modules (Lekhya & Suchi) of iitKLAS
have been re-engineered; rest are under process. Now our library is also accessible to outside community through web: http://www.library.iitk.ac.in/

ON-LINE CATALOGUE OF BACK VOLUMES OF PERIODICALS
An exercise for creating on-line catalogue of back volumes of journals is still under way. A retrospective data file is being created for the purpose.

DOCUMENT DELIVERY SERVICES & EXTERNAL USER MEMBERSHIP
Inter-Library Loan (ILL) services, as usual, are extended free to sister IITs, IISc, TIFR, BARC; whereas other institutions are charged for Document Delivery Service (DDS). During 2003-2004, photocopies of various documents comprising of 4605 pages have been provided. Complimentary copies of CAS services, departmental work, etc. accounted for 1,62,806 xerox copies.

Individual and institutional membership of the library was made available to 1568 external users.

COMPUTER CENTRE
Computer Centre at IIT Kanpur is a central facility that caters to the computing needs of the faculty members and the students for their research and teaching. It has a users base of about 4500.

Computer Centre has a number of state of the art systems like Sun Enterprise 10000, SGI Origin 3400, IBM-SP, and, Compaq 8 way server. It has about 250 PCs running Linux or window 2000 Operating System. All the computers in the Centre are connected through a 100 Mbps switched network.

Computer Centre supports an institute-wide 6000 points, 100 Mbps, fiber optic network that connects all academic departments, central library, student hostels, RE hostel, Visitors’ Hostel, Lecture halls and administrative departments. Internet and email services are provided to all the users through dedicated two 2 Mbps internet links. Connectivity to faculty residences is provided through ADSL. For other residential users, both inside and outside the campus, dialup service is provided.

Computer Centre provides computational, email and web access facilities to all its users. Faculty members have access to the computing facilities for the life time.

Computer Centre operates 24 hours a day, 365 days an year. It has a power back up through a 270 KVA UPS and a 320 KVA generator set. Air conditioning is provided by the central air conditioning plant and room air conditioners.
**HARDWARE IN THE COMPUTER CENTRE**

Computers in the Centre have broadly been divided in various categories based on the activity supported by them. The broad categories and servers with configuration in each of the categories, are listed below (number in the bracket indicates number of machines):

<table>
<thead>
<tr>
<th>Central File Server</th>
<th>Sun Enterprise 3500</th>
<th>6Sparc II processors, 6 GB RAM, 2.9 TB HDD in Raid arrays with automated backup facility.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compute Servers</td>
<td>SGI Origin 3400</td>
<td>16 MIPS R12000 processors, 8 GB RAM, 108 GB HDD, Graphic brick for virtual Reality lab.</td>
</tr>
<tr>
<td></td>
<td>Sun Enterprise 10000</td>
<td>15 Sparc II processors, 8 GB RAM, 108 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>IBM SP</td>
<td>15 Power 3 processors, SP switch, 8 GB RAM, 9 GB internal HDD per node, 90 GB external HDD on SSA.</td>
</tr>
<tr>
<td></td>
<td>Param 10000</td>
<td>4 dual Sparc II CPUs Sun E250 nodes, Param Net switch, 4 GB RAM, 108 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>Compaq Server</td>
<td>8 PIII Xeon processors, 4 GB RAM, 108 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>Sun Enterprise 450</td>
<td>4 Sparc II processors, 2 GB RAM, 40 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>SGI Origin 200 (2)</td>
<td>4 MIPS R12000 processors, 1 GB RAM, 30 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>Linux Cluster</td>
<td>16 nodes each with PIII 800 MHz processor, 128 MB RAM, 20 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>HP9000/L-3000</td>
<td>4 CPU, 2 GB RAM, 108 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>IBM RS-6000/270</td>
<td>4 CPU, 2 GB RAM, 108 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>ES40 Compaq Alpha</td>
<td>4 CPU, 2GB RAM, 108 GB HDD.</td>
</tr>
<tr>
<td>Application/Interactive/Print Servers</td>
<td>SGI origin 200(2)</td>
<td>2 MIPS R 12000 processors, 8 GB RAM, 15 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>HP B-1000(3)</td>
<td>PA-RISC 8500@360Mhz CPU, 256 MB RAM, 9 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>Sun E250 (2)</td>
<td>Spare II Processors, 1 GB RAM, 36 GB HDD.</td>
</tr>
<tr>
<td>NIS, Mail, News, Internet, NT Servers</td>
<td>www, Proxy, vsnl proxy</td>
<td>HCL P-IV, Xeon @ 2GHz CPU, 1GB RAM, 2 X 36 GB Disk.</td>
</tr>
<tr>
<td></td>
<td>Home, Students, home, web</td>
<td>Compaq P-IV, 114 GHz CPU, 512 MB RAM, 20 GB Disk.</td>
</tr>
<tr>
<td></td>
<td>NIS</td>
<td>Compaq DW 300 WS P-IV, 1.7 GHz CPU, 256 MB RAM, 40 GB Disk.</td>
</tr>
<tr>
<td></td>
<td>Mail 2</td>
<td>P-IV 1.6 GHz CPU, 256 MB RAM</td>
</tr>
<tr>
<td></td>
<td>NS1, ernet proxy</td>
<td>Compaq P-IV, 1GB RAM, 80 GB HDD.</td>
</tr>
<tr>
<td></td>
<td>Antivirus</td>
<td>Sun E250, 400 MHz CPU, 512 MB RAM, 8 GB Disk</td>
</tr>
<tr>
<td></td>
<td>Qasid</td>
<td>P-IV Dual Processor Xeon @ 2 GHz, 1GB RAM.</td>
</tr>
<tr>
<td></td>
<td>News</td>
<td>Sun Ultra 10 WS, 256 MB RAM, 9 GB Disk.</td>
</tr>
<tr>
<td></td>
<td>Zenith NT Server</td>
<td>2 Pentium- Pro processors, 1 GB RAM,12 GB Disk.</td>
</tr>
</tbody>
</table>
Annual Report 2003-04

<table>
<thead>
<tr>
<th>Servers for Office/Library/Digital Library Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Compaq Proliant 1500 NT Server.</strong></td>
</tr>
<tr>
<td><strong>Xeon based NT Server</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Servers for Office/Library/Digital Library Automation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HP L-1000</strong></td>
</tr>
<tr>
<td><strong>SUN E-450 (OA, Digital Lib.)</strong></td>
</tr>
<tr>
<td><strong>Zenith One up (NT server)</strong></td>
</tr>
<tr>
<td><strong>PCs (150) in admin sections</strong></td>
</tr>
<tr>
<td><strong>Sun E250 (data vault)</strong></td>
</tr>
<tr>
<td><strong>Compaq ML 530 server</strong></td>
</tr>
<tr>
<td><strong>Compaq thin clients</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Front-end Work Stations</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sun Ultra 10(10)</strong></td>
</tr>
<tr>
<td><strong>Linux PCs (153)</strong></td>
</tr>
<tr>
<td><strong>NT PCs.</strong></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**OTHER EQUIPMENT**

Computer Centre also supports two high speed line printers (1000lpm), one post script laser printers, one deskjet color plotter, one A3 size scanner, and network equipment like switches.

**SOFTWARE IN THE CENTRE**

Database packages- Oracle, Ingress, Visual FoxPro
CAD/CAM and solid modeling package-I-Deas, Autocad
FEM Packages-Nastra, MSC Mark
CFD Packages-Fluent
Tool to solve symbolic mathematical equations-Mathematica, Matlab, Math Cad
Simulation- Arena, Solversuite, Gams, Cplex
Chemical Process modeling – Aspen plus
Molecular modeling- MSI
Statistical Analysis Packages- Statistica, SPSS, SAS
Numerical Libraries – NAG
CENTRE FOR DEVELOPMENT OF TECHNICAL EDUCATION
The Centre for Development of Technical Education continued its multifaceted activities. Under Quality Improvement Programme (QIP) 07 candidates in M.Tech. and 08 in Ph.D. are admitted to various departments. The Curriculum Development Cell (CDC) approved 07 text book writing proposals in addition to the 21 projects which had been sanctioned earlier. The work for both proposals is under progress. During the last financial year 04 book writing projects have been completed (See Annexure-I).

Through the Continuing Education Programme numerous short term courses, conferences and workshops were organized. A List of all short term courses (Annexure-II) and workshops/conferences/seminars (Annexure-III) is enclosed herewith.
## LIST OF CONDUCTED SHORT TERM COURSES (APRIL 1, 2003 - MARCH 31, 2004)

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Title of the Short Term Course</th>
<th>Coordinator</th>
<th>Department</th>
<th>Duration</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Training Programme for Kerala Entrance Examination (Through Remote Education)</td>
<td>Dr. N.K. Sharma</td>
<td>Humanities and Social Sciences</td>
<td>April 04-06, 2003</td>
<td>STC</td>
</tr>
<tr>
<td>3.</td>
<td>Summer Camp 2003 for Civil Engg. Undergraduate</td>
<td>Drs. Bharat Lohani &amp; CVR Murty</td>
<td>Civil Engineering</td>
<td>June 06- July 05, 2003</td>
<td>STC</td>
</tr>
<tr>
<td>6.</td>
<td>Advanced Workshop on Oracle9i DBA</td>
<td>Mr. Khaleeq Ahmad</td>
<td>Computer Centre</td>
<td>June 26-30, 2003</td>
<td>STW</td>
</tr>
<tr>
<td>No.</td>
<td>Event Title</td>
<td>Facilitators</td>
<td>Department</td>
<td>Date</td>
<td>Venue</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>-----------------------</td>
<td>--------------------</td>
<td>-------</td>
</tr>
<tr>
<td>15.</td>
<td>Earthquake Engineering to be held at Ahemedabad</td>
<td>Dr. CVR Murty</td>
<td>Civil engg.</td>
<td>July – Dec. 2003</td>
<td>STC</td>
</tr>
<tr>
<td>16.</td>
<td>Introduction to Earthquake Engineering</td>
<td>Dr. Duresh C Rai</td>
<td>Civil Engg.</td>
<td>Aug. 04-09, 2003</td>
<td>STC</td>
</tr>
<tr>
<td>17.</td>
<td>Power Reform</td>
<td>Dr. P.K. Kalra</td>
<td>Electrical Engineering</td>
<td>Sept. 03-07, 2003</td>
<td>STC</td>
</tr>
<tr>
<td>22.</td>
<td>Frontiers in Inorganic Chemistry</td>
<td>Dr. R.N. Mukherjee</td>
<td>Chemistry</td>
<td>Dec. 18-31, 2003</td>
<td>STC</td>
</tr>
<tr>
<td>23.</td>
<td>Laboratory Practical for Students of Royal Bhutan Institute of Technology, Bhutan</td>
<td>Dr. K. K. Bajpai</td>
<td>Civil Engineering</td>
<td>Jan. 06-27, 2004</td>
<td>STC</td>
</tr>
<tr>
<td>Sl. No.</td>
<td>Title of the Conference/Workshop/Symposium</td>
<td>Coordinator(s)</td>
<td>Department(s)</td>
<td>Durations</td>
<td>Status</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------</td>
<td>---------------------------------</td>
<td>---------------------</td>
<td>-------------------</td>
<td>--------</td>
</tr>
<tr>
<td>27.</td>
<td>Communication Skills</td>
<td>Drs. Achla M Raina &amp; G. Neelakantan</td>
<td>Humanities &amp; Social Sciences</td>
<td>One-week</td>
<td>QIP/STC</td>
</tr>
<tr>
<td>30.</td>
<td>Recent Trends in Construction &amp; Rehabilitation of Buildings</td>
<td>Shri Santosh Kumar</td>
<td>IWD</td>
<td>Mar. 02-04, 2004</td>
<td>STC</td>
</tr>
<tr>
<td></td>
<td>Latest Development in Mathematics</td>
<td>Dr. D. Bahuguna</td>
<td>Maths</td>
<td>Mar. 08-12, 2004</td>
<td>STC</td>
</tr>
</tbody>
</table>

**LIST OF WORKSHOPS/CONFERENCES/SEMINARS (APRIL 1, 2003 - MARCH 31, 2004)**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Title of the Conference/Workshop/Symposium</th>
<th>Coordinator(s)</th>
<th>Department(s)</th>
<th>Durations</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Computer-based Data Acquisition and Control for Automation of Civil Engg. Labs</td>
<td>Dr. K.K. Bajpai</td>
<td>Civil Engg.</td>
<td>April 07-08, 2003</td>
<td>W</td>
</tr>
<tr>
<td>2.</td>
<td>CASMIT’03 (Competitive Advantage Through Strategic Management of Information &amp; Technology)</td>
<td>Dr. Jayanta Chaterjee</td>
<td>Industrial &amp; Management Engg.</td>
<td>April 10-12, 2003</td>
<td>W</td>
</tr>
<tr>
<td></td>
<td>Workshop on Curriculum Development for Geoinformatics</td>
<td>Dr. Onkar Dikshit</td>
<td>Civil Engineering</td>
<td>July 14 &amp; 15, 2003</td>
<td>W</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------</td>
<td>-------------------</td>
<td>------------------</td>
<td>-------------------</td>
<td>---</td>
</tr>
<tr>
<td>8</td>
<td>Workshop on Seismic Design Code: IS:1893-2002 to be held at Hyderabad</td>
<td>Dr. CVR Murty</td>
<td>Civil Engg.</td>
<td>Aug. 01-02, 2003</td>
<td>W</td>
</tr>
<tr>
<td>10</td>
<td>Workshop on New Avionics Technologies to be held at HAL, Korwa</td>
<td>Dr. Bansi Lal</td>
<td></td>
<td>Nov. 14-15, 2003</td>
<td>W</td>
</tr>
<tr>
<td>11</td>
<td>IIT Kanpur String Theory Workshop</td>
<td>Dr. Gautam Sengupta</td>
<td>Physics</td>
<td>Dec. 07-22, 2003</td>
<td>W</td>
</tr>
<tr>
<td>14</td>
<td>Project Methodology Workshop during</td>
<td>Dr. A K Sharma</td>
<td>Humanities &amp; Social Sciences</td>
<td>Feb. 01-03, 2004</td>
<td>W</td>
</tr>
<tr>
<td>Sl. No.</td>
<td>Title of the Course</td>
<td>Coordinator(s)</td>
<td>Dept.</td>
<td>Duration</td>
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<tr>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>------------------------------</td>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Communication Skills</td>
<td>Drs. Achla M Raina &amp; G Neelakantan</td>
<td>HSS</td>
<td>One Week</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Combustion-generated Emission and Its Control</td>
<td>Dr. D.P. Mishra</td>
<td>AE</td>
<td>One Week</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Electric Power System Operation and Management in Resturctured Environment</td>
<td>Dr. S.N. Singh</td>
<td>EE</td>
<td>One Week May 12-17, 2003</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Trends in Display Technologies: 2003</td>
<td>Dr. B. Mazhari</td>
<td>EE</td>
<td>One Week May, 2003</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Cad of Thermal Systems</td>
<td>Dr. P.K. Panigrahi</td>
<td>ME</td>
<td>One Week July 21-26, 2003</td>
<td></td>
</tr>
</tbody>
</table>
LIST OF ICSSR COURSES
I. Environmental Economics and EIA, Dr. Binayak Rath, HSS, June 26 - July 5, 2003

BOOK WRITING PROJECT
a) Book writing projects continued 21
b) Proposal approved during the year 2003-04 07
c) Book writing Projects completed 04

CENTRE FOR CREATIVE WRITING AND PUBLICATION

The Centre organized the following activities during April 2003 to March 2004

- Seminar by Professor Ramarajan Mukherjee on “Indian Culture: Projections and Premises” on March 5, 2004.
- General Discussion with Professor Ramarajan Mukherjee on March 6, 2004.
- Several group discussions on various literary topics.

Some activities of Professor B.N. Patnaik during the year:
Listed in the annual Report of the HSS Department for the period under reference.

STAFF DEVELOPMENT & COORDINATION CENTRE

The Staff Development Coordination Centre oversee the smooth progression of all the staff members in their career advancement, and to develop abilities of an individual to satisfy current and future manpower needs of the Institute.

The non-teaching staff is an important component in the institute and they must be taken along the journey of excellence. This centre is committed to design to meet the challenges in terms of high qualities of training of Human Resources in the Institute. The staff members whole heartedly participated in the learning activities to acquire new knowledge, skills attitude and change habits.

The centre has celebrated the Diamond Jubilee of Training programmes in March, 2003.
The following training programmes were organized during the financial year 2003-2004:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Training Programme</th>
<th>No. of days</th>
<th>No. of participants</th>
<th>Type of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Administrative Management</td>
<td>One-day 03.05.2003</td>
<td>50 Group C</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Safety Management</td>
<td>One-day 09.05.2003</td>
<td>54 Group C</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Induction programme</td>
<td>03 days 04.08.2003 to 08.8.2003</td>
<td>20 Group B&amp;C</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Role of ISCC Members</td>
<td>03 days 11.11.2003 to 14.11.2003</td>
<td>08 ISCC members</td>
<td></td>
</tr>
</tbody>
</table>

**SC/ST and OBC CELL**
At present, Prof. NS Gajbhiye (Deptt. of Chemistry), is the Liaison Officer for SC/ST & OBC w.e.f. September 20, 2001.

**IMPLEMENTATION OF RESERVATION ORDERS**
The effective date of implementation of reservation for SCs and STs in the direct recruitment is **5th September 1974** in this Institute.

**MAINTENANCE OF ROSTERS/ PERCENTAGE OF RESERVATION**
The Board of Governors had approved, in its meeting held on July 27, 1995, maintenance of 120* points vacancy-based roster for Group A (other than exempted posts) & B posts and 100♦ points roster for Group C & D posts for direct recruitment at the Institute. On the basis of Judgement passed by the Constitution bench of Supreme Court, the Government of India, Department of Personnel & Training, issued O.M. 36012/2/96-Estt.(Res.) dated July 02, 1997 vide which the above vacancy-based rosters have been revised into post-based rosters for the different category of employees in direct recruitment. The Board after due consideration accorded its approval, in its 1997/5th meeting held on December 05, 1997 for maintenance of post-based rosters.

* Points reserved in favour of OBCs-31, SCs-20, STs-9
♦ Points reserved in favour of OBCs-27, SCs-21, STs-1
As per Recruitment and Career Development Scheme which is personal promotion scheme (non-vacancy linked promotion scheme), there is no promotion based on vacancies, hence reservation in career advancement is not applicable.

CONCESSIONS/ RELAXATIONS

a. There is no upper age bar in the Institute for any post for any community. In case any age limit is prescribed due relaxation of 5 years in upper age is made available for SC/ST candidates and of 3 years to OBCs.

b. SC/ST are fully exempted from payment of application and registration fees.

c. To and fro TA is being paid to the candidates of all categories out of Kanpur to attend the test and interview [For Group-A : 1st class and for Group B, C & D : 2nd class rail fare];

d. Experience requirement is relaxable at the discretion of competent authority.

e. In addition to relaxation of experience requirement, higher initial pay is given to exceptionally qualified and deserving candidates. During the period of report, higher initial pay was given to the following employee:

Two additional increments in the pay scale of Rs.3050-75-3950-80-4590 were given to Shri Suresh Babu Bharati (SC), Mechanic, Dept. of Aero. Eng.

I. Two additional increments in the pay scale of Rs.3050-75-3950-80-4590 were given to Shri Mahesh Kumar (SC), Mechanic, Dept. of Mech. Engg.

II. Two additional increments in the pay scale of Rs.4500-125-7000 were given to Shri Sanjeev Kumar Verma (OBC), TA, Dept. of Mech. Engg.

III. Two additional increments in the pay scale of Rs.4500-125-7000 were given to Mrs. Sandhya Kumari (OBC), Nurse, Health Centre

IV. One additional increment in the pay scale of Rs. 3050-75-3950-80-4590 was given to Shri Radha Saran Satsangi (SC), LDC, Dept. of IME

V. One additional increment in the pay scale of Rs.3050-75-3950-80-4590 was given to Shri Rajneesh (SC), LDC, Accounts Section.

VI. One additional increment in the pay scale of Rs.3050-75-3950-4590 was given to Shri K Nageswara Rao (OBC), Asstt. Care Taker, PK Kelkar Library

VII. One additional increment in the pay scale of Rs.5000-150-8000 was given to Shri Rajendra Kumar Bharti (SC), Technical Assistant (Lib), PK Kelkar Library.

VIII. Two additional increments in the pay scale of Rs.5000-150-8000 were given to Shri Noufal. PP (OBC), Technical Assistant (Lib), PK Kelkar Library

EMPLOYMENT NOTIFICATIONS

Advertisement/Notification is released in the Employment News with details of concessions/relaxations to SC/ST & OBC candidates and the number of posts reserved available for them. A copy of the Advt. is sent to AIR/Doordarshan for publicity. The copies of Employment Notices/Notifications are sent to recognised SC/ST Welfare Associations for publicity among their members.
During the period of report, the detail of Advs. (internal/external) issued through Recruitment Section is as under:

<table>
<thead>
<tr>
<th>Advt. No.</th>
<th>Name of Post(s)</th>
<th>Pay Scale</th>
<th>No. of Vacancies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/200</td>
<td>Assistant Registrar</td>
<td>8000-13500</td>
<td>SC ST OB UC U R</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>- - 1 1</td>
<td></td>
</tr>
<tr>
<td>4/200</td>
<td>Medical Officer</td>
<td>8000-13500</td>
<td>SC ST OB UC U R</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td>- - 1 1</td>
<td></td>
</tr>
<tr>
<td>1/200</td>
<td>R&amp;D Officer, AR&amp;D Officer, Chief Security Officer</td>
<td>12000-18300, 8000-13500, 10000-15200</td>
<td>SC ST OB UC U R</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td>- - - 1 1 -</td>
<td></td>
</tr>
</tbody>
</table>

Published in:
- Circulated within Institute vide No. RA/Advt.1/2003-IITK/844 dated 10.12.03
- HT(Lko-edn.) and Jagran (Kanpur edn.)
- All edns. of Dainik Jagran, HT & University News (Delhi)

Total - - 2 4 6

The recruitment for all academic posts of Institute are made through the press/professional journals/circulars to educational institutes etc.

**INCLUSION OF SC/ST MEMBER**

A SC/ST member of comparable status is included in the Selection Committee as a full member. For the period of report, the detail of Selection/Assessment Committee meetings held through Recruitment Section is given below:

**For Selection:**
- Total 21 Selection Committee meetings:
  - 06 S/C meetings, wherein SCT representative included.
  - 11 S/C meeting, wherein SCT/OBC representative included.
  - 04 S/C meeting, wherein OBC representative included.

**For Assessment:**
- 01 Asmt. Committee meeting held, wherein SCT representative included.

**CALL LETTERS FOR INTERVIEWS/APPOINTMENT LETTERS**

I. To ensure that the interview/appointment letters are received by the candidates (including reserved category candidates) well in time – the interview/appointment letters are being sent through UPC and registered post to ensure delivery.
II. Normally for interviews a minimum of three weeks’ time and for appointments a minimum of one month's period of interval is being provided.

RESERVATION OF QUARTERS

1. The Institute has been allotting one in every ten qrs. to SC/ST employees, out of Type-IA, Type-I and Type-II Qrs. and one in every twenty qrs. in Type-III, and Type-IV Qrs. (only from the pool reserved for allotment to Officers other than faculty).

The available data related to house allotment is given below for the period under reference:

<table>
<thead>
<tr>
<th>Type of house</th>
<th>Houses allotted to</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SC/ST</td>
<td>GEN</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>As per Reservation</td>
<td>As per Seniority</td>
<td></td>
</tr>
<tr>
<td>Type-IA (Single room)</td>
<td>02</td>
<td>02</td>
<td>09</td>
</tr>
<tr>
<td>Type-IA (Double room)</td>
<td>02</td>
<td>02</td>
<td>09</td>
</tr>
<tr>
<td>Type-I</td>
<td>02</td>
<td>02</td>
<td>15</td>
</tr>
<tr>
<td>Type-II</td>
<td>02</td>
<td>02</td>
<td>11</td>
</tr>
<tr>
<td>Type-III</td>
<td>-</td>
<td>-</td>
<td>40</td>
</tr>
<tr>
<td>Type-IV</td>
<td>-</td>
<td>-</td>
<td>15</td>
</tr>
</tbody>
</table>

2. There is no reservation in the quarters of Type –V (as these qrs are more or less allotted to faculty members and other eligible officers without any discrimination of caste and creed etc.)

COMPLAINTS/ GRIEVANCES

No letter received for redressal of grievance of a SC/ST employee.

Any Caste falsification brought to notice is also followed up by the Cell. No new case, one old case of caste falsification in which the correspondence with the concerned District Magistrate was on w.e.f. December 1999 for verification of caste status, the concerned employee resigned from the Institute w.e.f 16.12.2003, and hence the chapter is closed for ever.

Apart from the above, the data, as available for showing the representation of SCs/STs & OBCs in other areas, is given below:
A. Academic Staff

<table>
<thead>
<tr>
<th>Area(s)</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointments</td>
<td>-</td>
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<td>-</td>
<td>36</td>
<td>36</td>
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<tr>
<td>Retirement</td>
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<td>-</td>
<td>16</td>
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<tr>
<td>Deaths</td>
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<td>02</td>
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<tr>
<td>Resignation</td>
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<td>V/Retirement</td>
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<tr>
<td>C/Retirement</td>
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<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Termination</td>
<td>-</td>
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</tr>
<tr>
<td>Dismissal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

B. Non-Academic

<table>
<thead>
<tr>
<th>Area(s)</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appointments</td>
<td>8</td>
<td>1</td>
<td>7</td>
<td>26</td>
<td>42</td>
</tr>
<tr>
<td>Appointments:</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>a) On permanent basis (Through open</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Recruitment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) On compassionate grounds</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>c) On deputation basis</td>
<td>-</td>
<td>1</td>
<td>7</td>
<td>26</td>
<td>42</td>
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<tr>
<td>d) On contract for 3 yrs</td>
<td>8</td>
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<td></td>
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<tr>
<td>Total</td>
<td>8</td>
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<td>7</td>
<td>26</td>
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<tr>
<td>Retirement</td>
<td>10</td>
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<td>66</td>
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<tr>
<td>Deaths</td>
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<td>-</td>
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<td>5</td>
<td>6</td>
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<tr>
<td>Resignation</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>V/Retirement</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>C/Retirement</td>
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<td>SVRS</td>
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<td>33</td>
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<td>Deputationists repatriated</td>
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<td>-</td>
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</tr>
<tr>
<td>Termination</td>
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<td>-</td>
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<td>-</td>
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<tr>
<td>Dismissal</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>1</td>
<td>2</td>
<td>90</td>
<td>112</td>
</tr>
</tbody>
</table>

Assessment (Non-Vacancy linked personal promotion)
No orders issued for non-academic staff (Min.+Tech.)

<table>
<thead>
<tr>
<th>Pay-scale</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>From</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Cleaners
In addition to above, the data, as available for showing the **representation of SCs/STs & OBCs related to existing strength** of the employees at the Institute, is given below:

**A. Existing Strength of Academic Staff (Teaching/Non-teaching) as on 01.04.2004:**

Recruited through DOFA Office

<table>
<thead>
<tr>
<th>Academic</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>301</td>
<td>304</td>
</tr>
<tr>
<td>Non-Teaching</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>345</td>
<td>348</td>
</tr>
</tbody>
</table>

**B. Existing Strength of Non-Academic Staff as on 01.04.2004:**

Recruited through Recruitment Section

<table>
<thead>
<tr>
<th>Group</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
<td>-</td>
<td>3</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>B</td>
<td>22</td>
<td>1</td>
<td>4</td>
<td>165</td>
<td>192</td>
</tr>
<tr>
<td>C</td>
<td>81</td>
<td>5</td>
<td>40</td>
<td>301</td>
<td>427</td>
</tr>
<tr>
<td>D</td>
<td>66+28*</td>
<td>-</td>
<td>7</td>
<td>198</td>
<td>271+28*</td>
</tr>
<tr>
<td>Total</td>
<td>173+28*</td>
<td>6</td>
<td>54</td>
<td>659</td>
<td>928+28*</td>
</tr>
</tbody>
</table>

* Cleaners, not counted towards reservation.

**C. Existing Strength of Account-II Employees as on 01.04.2004:**

Recruited Through DORD Office

<table>
<thead>
<tr>
<th>Group</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>23</td>
<td>37</td>
</tr>
</tbody>
</table>
D. Existing Strength of Mess Employees as on 01.04.2004:
Recruited through COW Office

<table>
<thead>
<tr>
<th>Group</th>
<th>SC</th>
<th>ST</th>
<th>OBC</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>D</td>
<td>15+8*</td>
<td>-</td>
<td>50</td>
<td>67</td>
<td>132+8*</td>
</tr>
<tr>
<td>Total</td>
<td>15+8*</td>
<td>-</td>
<td>52</td>
<td>75</td>
<td>142+8*</td>
</tr>
</tbody>
</table>

* Cleaners, not counted towards reservation

E- The data as available for showing the representation of SCs/STs related to the students admitted in the 1st Semester 2003-04 in various programmes/discipline at the Institute is given below:

<table>
<thead>
<tr>
<th>Programmes</th>
<th>B.Tech</th>
<th>Registration Data in the 2003-2004 (I Semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SC</td>
<td>ST</td>
</tr>
<tr>
<td>Aero. Engg.</td>
<td>15</td>
<td>-</td>
</tr>
<tr>
<td>Chem. Engg.</td>
<td>23</td>
<td>4</td>
</tr>
<tr>
<td>Civil Engg.</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Comp. Sc &amp; Engg</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Elect. Engg.</td>
<td>44</td>
<td>24</td>
</tr>
<tr>
<td>MME</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Mech. Engg.</td>
<td>35</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>171</td>
<td>56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programmes</th>
<th>M.Sc (5yrs. Integrated)</th>
<th>Registration Data in the 2003-2004 (I Semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SC</td>
<td>ST</td>
</tr>
<tr>
<td>Chemistry</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mathematics</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Physics</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programmes</th>
<th>B-Tech-M-Tech (Dual Degree)</th>
<th>Registration Data in the 2003-2004 (I Semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SC</td>
<td>ST</td>
</tr>
<tr>
<td>Aero. Engg.</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Chem. Engg.</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Comp. Sc &amp; Engg</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>
**Elect. Engg.**  
- SC: 5  
- ST: -  
- GEN: 28  
- Total: 33  

**Mech. Engg.**  
- SC: 6  
- ST: -  
- GEN: 40  
- Total: 46  

**Total**  
- SC: 22  
- ST: 2  
- GEN: 138  
- Total: 162  

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Registration Data in the 2003-2004 (I Semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.Sc-Ph. D (Dual Degree)</td>
<td>SC</td>
</tr>
<tr>
<td>Physics</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Registration Data in the 2003-2004 (I Semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.Sc (2 yrs.)</td>
<td>SC</td>
</tr>
<tr>
<td>Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>Mathematics</td>
<td>-</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Programmes</th>
<th>Registration Data in the 2003-2004 (I Semester)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-Tech</td>
<td>SC</td>
</tr>
<tr>
<td>Aero. Engg</td>
<td>9</td>
</tr>
<tr>
<td>Chem. Engg.</td>
<td>5</td>
</tr>
<tr>
<td>Civil Engg.</td>
<td>4</td>
</tr>
<tr>
<td>Com. Sc. &amp; Engg</td>
<td>3</td>
</tr>
<tr>
<td>Elect. Engg.</td>
<td>9</td>
</tr>
<tr>
<td>Mech. Engg.</td>
<td>10</td>
</tr>
<tr>
<td>MME</td>
<td>6</td>
</tr>
<tr>
<td>MSP</td>
<td>3</td>
</tr>
<tr>
<td>IME</td>
<td>1</td>
</tr>
<tr>
<td>NET</td>
<td>-</td>
</tr>
<tr>
<td>LTP</td>
<td>1</td>
</tr>
<tr>
<td>EEM</td>
<td>2</td>
</tr>
<tr>
<td>BSBE</td>
<td>3</td>
</tr>
<tr>
<td>M.Des</td>
<td>3</td>
</tr>
<tr>
<td>DIIT</td>
<td>-</td>
</tr>
<tr>
<td>MBA</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
</tr>
</tbody>
</table>
RAJBHASHA PRAKOSHTHA
IIT Kanpur is an Institute of National importance where students from all over the country and abroad are admitted for higher education in Science, Engineering, Technology and Humanities disciplines. Therefore, the English language has been adopted as the medium of instruction/syllabus and Research and Academic Activities.

Rajbhasha Prakoshtha was established in the Institute in September 1986. It has got its own office which is equipped with two bilingual personal computers for smooth and efficient working. It is managed by a Liaison Officer, a Hindi Officer, a senior Stenographer (Hindi) and a Technical Assistant (Translation). The Rajbhasha Prakostha is effective in creating awareness of Hindi among the Institute employees. “Sansthan Rajbhasha Karyanvayan Samiti” constituted by the Director monitors and provides guidance to the Rajbhasha Prakoshtha in its planning and performance. The Rajbhasha Prakostha performs various activities like organising of Hindi Diwas and holds meetings for promoting the atmosphere of Rajbhasha in the Institute round the year.

### Prgrammes Registration Data in the 2003-2004 (I Semester)

<table>
<thead>
<tr>
<th>Programme</th>
<th>Ph.D</th>
<th>SC</th>
<th>ST</th>
<th>GEN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aero. Engg.</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>23</td>
<td>27</td>
</tr>
<tr>
<td>Chem. Engg.</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>Civil Engg.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>Comp. Sc &amp; Engg</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Elect. Engg.</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>34</td>
<td>35</td>
</tr>
<tr>
<td>Mech. Engg.</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>42</td>
<td>43</td>
</tr>
<tr>
<td>MME</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>MSP</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>IME</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>NET</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CHM</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>110</td>
<td>116</td>
</tr>
<tr>
<td>MTH</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>PHY</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>M.Sc-Ph.D Dual Degree</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>HSS</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>33</td>
<td>33</td>
</tr>
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</tr>
<tr>
<td>BSBE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td>-</td>
<td>-</td>
<td><strong>474</strong></td>
<td><strong>494</strong></td>
</tr>
</tbody>
</table>
The Rajbhasha Prakostha has adopted the following policies:

1. Entire correspondence with Group D employees are done in Hindi.
2. All Hindi letters are replied in Hindi.
3. All routine forms and the headings of Registers have been printed bilingually in most of the departments of the Institute.
4. The name plates, office stamps, signboards, letter heads, and envelopes etc have been made bilingual. 13 LDCs/UDCs have been trained in Hindi type under the Hindi training programme organised by the Hindi Shikshan Yojana Kanpur. Similarly 6 stenographers have been trained in Hindi Stenography under the scheme.
5. Regular classes of Prabodh, Praveen & Pragya for the Non-Hindi speaking employees have already been started. 6 Non-Hindi speaking employees have been trained in Prabodh, Praveen and 6 trained in Pragya.

The Act and the Statutes of the Institute have been made bilingual.

The Annual Report of the Institute for the year 2002-2003 and the Audit Report received from the AG, UP were translated into Hindi and fair copies typed for submission to the Ministry.

The press release and invitation cards for the convocation were issued bilingually. All periodical reports were sent to the Ministry and the Nagar Rajbhasha Karyanvayan Samiti in time.

In compliance to the directives of Official Language Department, New Delhi, Hindi week was observed by conducting various competitions and on 26.09.2003 Hindi Diwas samaroh was held in the Lecture Hall complex, in which the winners of various competitions were honoured with suitable cash awards.

Following competitions were held on 22.09.2003 to 26.09.2003 to:

a) Hindi Dictation Competition (Forth class employees)
b) Debate Competition
c) Noting & Drafting Competition
d) Poetry recitation competition

Winners of the above competitions were as under:

Hindi Dictation Competition

1. Shri Arvind Pandey  Ist
2. Smt. Pramod Tripathi  IInd
3. Shri Om Prakash  IIIrd

Debate Competition

1. Smt. Malni Sinha  Ist
2. Shri K.K. Tiwari               IInd
3. Shri K.V. Satyamurti          IIIrd

Noting & Drafting Competition
1. Mohd. Nijam Khan              Ist
2. Shri J.P. Kanoujia            IInd
3. Shri Ghanshyam Rao Hosing     IIIrd

Poetry recitation competition
1. Km. Jaya Jha                  Ist
2. Shri Praveen Chaturvedi       IInd
3. Dr. O.P. Misra                IIIrd

During the year 2003-2004 about 67 letters from Directorate, 89 letters from Registrar’s office, 252 letters/circulars alongwith Hindi translation from Administration Section and 155 letters from others were issued in Hindi.

Rajbhasha Prakoshtha is dedicated for the upliftment of Hindi at the Institute. It is always prepared to coordinate with each and every department of the Institute in the implementation of the orders and directives received time to time from the Ministry of Human Resources & Development, Govt. of India.

TELEVISION CENTRE
During the year under review, as many as 324 indents were accommodated besides the regular lecture schedule at the lecture hall complex audio-visual facilities were provided at the Western Lab., Tutorial Complex, Visitors’ Hostel and Pioneer batch building, mainly for academic purposes.

Preservation of celluloid films in the TV Centre library was becoming extremely difficult because of the aging phenomena. Therefore, under a special drive, the 300 celluloid films were transferred on to videotape as well as CD. This ensures not only longevity but more convenience also.

The continuous use of the main hall in the Pioneer batch building and sometimes in great hurry, necessitated the permanent installation of the public address system and projection screen. The effort has made it convenient for the operational staff.
Finance Plan

The Government of India, Ministry of Human Resources & Development (MHRD) notified in October 1994, revised norms for release of Non Plan Grant in new funding scheme and fixed Rs.2222.00 lakh per annum as Non-Plan Grant to the Indian Institute of Technology, Kanpur for the duration of four years from 1993-94 to 1996-97. >From the year 1997-98 to 2001-02 MHRD, Govt. of India had released Grant-in-aid under Non Plan on ad-hoc basis. The new revised pattern of funding known as ‘Formula Based Funding’ has been introduced from the year 2002-03 where cost per student is the base for deciding the Non Plan grant and the difference, if any, between the grant calculated on the basis of ‘new formula’ and actual released grant in previous year will be given as ‘Transitional grant’ subject to its adjustment in subsequent years.

The MHRD has released Rs.6800.00 lakh as Non-Plan Grant in the financial year 2003-2004.

NON-PLAN
The total receipt under Non-Plan during the financial year 2003-2004 from Ministry of Human Resource & Development, Government of India is Rs.6800.00 lakh. The Institute has also generated its own Internal Receipts of Rs.1469.71 lakh, which includes Rs.715.01 lakh as Student fees, Rs.466.80 lakh interest earned on investments/bank balances and Rs.287.90 lakh as other misc. income.

The Institute has also withdrawn an amount of Rs. 240.00 lakh from the Endowment fund account of the Institute for Non Plan activities during the financial year 2003-04.

The total Non Plan expenditure during the financial year 2003-2004 comes out to Rs. 8535.67 lakh against the total earnings of Rs. 8509.71 lakh. The excess expenditure of Rs. 25.96 lakh has been met out from the unspent carried over balance of previous financial year.

PLAN
Total receipts under Plan during the financial year 2003-2004 is Rs.3147.32 lakh which includes 2068.00 lakh grant-in-aid under Plan from the Ministry of Human Resource & Development (MHRD), Government of India, Rs.1060.00 lakh from the Endowment Fund Account of the Institute and Rs.19.32 lakh from other sources.

The total expenditure under Plan has been restricted to Rs.3147.32 lakh. This expenditure includes Rs.1521.36 lakh on Building & Works, Rs.27.71 lakh on Central Air-conditioning Facilities, Rs.1498.25 lakh on Non-consumable purchases including Equipment, furniture & fixtures etc. and Rs.100.00 lakh on Library Books.
PROJECTS UNDER EMERGING AREAS AND EXPANSION OF EXITING FACILITIES

The Institute has received grant-in-aid of Rs.3060.87 lakh under various Research Projects sponsored by Govt. of India, MHRD, AICTE, DST etc., Rs.189.78 lakh grant-in-aid under various Research Projects sponsored by State Government, Rs. 594.76 lakhs from other sponsored projects for Consultancy and Rs. 38.37 lakh for Testing work done by IIT, Kanpur during the financial year 2003-2004.

An expenditure of Rs.3588.38 lakh has been made in the same year on the Government Sponsored Projects and Other Projects including Consultancies/Testing etc.

INCOME AND EXPENDITURE UNDER MAJOR HEADS

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Particulars</th>
<th>Income ( Rs. In lakh)</th>
<th>Expenditure ( Rs. In lakh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Non-Plan</td>
<td>8509.71</td>
<td>8535.67</td>
</tr>
<tr>
<td>2.</td>
<td>Normal Plan</td>
<td>3147.32</td>
<td>3147.32</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Other Operational</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Funds</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GPF/CPF</td>
<td>1003.77</td>
<td>894.74 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>JEE</td>
<td>301.71</td>
<td>295.97 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>GATE</td>
<td>151.14</td>
<td>82.43 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>GATE (JMET)</td>
<td>6.26</td>
<td>5.82 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Research &amp; Development</td>
<td>387.18</td>
<td>256.27 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Deans Capital Fund</td>
<td>47.35</td>
<td>39.81 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Hall Management</td>
<td>219.03</td>
<td>260.29 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Fund Hall management</td>
<td>70.83</td>
<td>63.94 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Pension Hall Management</td>
<td>121.07</td>
<td>129.29 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Student Gymkhana</td>
<td>26.46</td>
<td>20.29 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Visitors Hostel</td>
<td>50.45</td>
<td>46.96 (Non Plan)</td>
</tr>
<tr>
<td></td>
<td>Endowment Fund</td>
<td>1162.80</td>
<td>1113.87 (Non Plan)</td>
</tr>
</tbody>
</table>
## Donations received from 01-04-2003 to 31-03-2004

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The Institute received a donations of US dollar through IITK Foundation USA</td>
<td>$1,43,543.49 (Rs. 6506109.00)</td>
</tr>
<tr>
<td>2.</td>
<td>Donations received from 1979 SJR Fund</td>
<td>Rs. 43,04,036.00</td>
</tr>
<tr>
<td>3.</td>
<td>Donations received from 1968 batch</td>
<td>Rs. 2,86,000.00</td>
</tr>
<tr>
<td>4.</td>
<td>Donations received for Building Project from 1969 batch</td>
<td>Rs. 12,92,500.00</td>
</tr>
<tr>
<td>5.</td>
<td>Donation received from 1976 batch</td>
<td>Rs. 5,000.00</td>
</tr>
<tr>
<td>6.</td>
<td>Donation received from 1977 batch</td>
<td>Rs. 4,73,394.00</td>
</tr>
<tr>
<td>7.</td>
<td>Donations received from 1980 batch</td>
<td>Rs. 5,50,000.00</td>
</tr>
<tr>
<td>8.</td>
<td>Donations received from 1990 batch</td>
<td>Rs. 8,62,471.00</td>
</tr>
<tr>
<td>9.</td>
<td>Prof. Arindam Bose has donated the amount for Distinguished Lecture Series in Bio-Science-Bio Engineering Department.</td>
<td>Rs. 235300.00</td>
</tr>
<tr>
<td>10.</td>
<td>Mr. Umang &amp; Ruth Gupta has donated the amount for Distinguished Alumni Lecture Series at IIT Kanpur</td>
<td>Rs. 675900.00</td>
</tr>
<tr>
<td>11.</td>
<td>Mr. Rakesh Pandey has donated the amount for Distinguished Lecture Series in the Department of Mechanical Engineering</td>
<td>Rs. 450615.00</td>
</tr>
<tr>
<td>12.</td>
<td>Dr G.S. Kainth has donated the amount for Instituting “Dr. Gurcharan Singh Kainth Scholarship”.</td>
<td>Rs. 100000.00</td>
</tr>
<tr>
<td>13.</td>
<td>Mr. Sreechand Boppudi has donated the amount for P K Kelker Library.</td>
<td>Rs. 45060.00</td>
</tr>
<tr>
<td>14.</td>
<td>Mr. Rajiv Singh has donated the amount for Mechanical Engineering Department</td>
<td>Rs. 13518.00</td>
</tr>
<tr>
<td>15.</td>
<td>Mr. Ajit Gill has donated the amount for Bio-Science-Bio Engineering Department. (BSBE)</td>
<td>Rs. 1354745.00</td>
</tr>
<tr>
<td>16.</td>
<td>Mr. Gaurav Shukla has donated the amount for 1999 batch fund</td>
<td>Rs. 4328.00</td>
</tr>
<tr>
<td>17.</td>
<td>Mr. R. Ram Kumar has donated the amount for EC Subbarao Distinguished Lecture Series in Metallurgical Engineering Department.</td>
<td>Rs. 500000.00</td>
</tr>
<tr>
<td>18.</td>
<td>Mr. Rajesh Gopakumar donated the amount for Distinguished lecture Series in Physics Department</td>
<td>Rs. 45000.00</td>
</tr>
<tr>
<td>19.</td>
<td>Prof. Vijay Vittal has donated the amount for Distinguished Lecture Series in Aero Engineering Department.</td>
<td>Rs. 450618.00</td>
</tr>
<tr>
<td>20.</td>
<td>Dr. Vijai Mahajan has donated amount for Vijay Mahajan Gold Medal Award</td>
<td>Rs. 125000.00</td>
</tr>
</tbody>
</table>
Facilities to Students

RESIDENTIAL ACCOMMODATION FOR STUDENTS
IIT Kanpur is a residential Institute and thus requires that all students registered for a degree programme in the Institute reside in the Campus itself. Therefore, all students except (i) married students who are allotted alternative accommodation in single bed room apartments (SBRA) and (ii) students who are wards of campus residents, are provided room accommodation in the Halls of Residences with mess and other facilities. Students who are wards of campus residents, as a special case, are permitted to stay with their parents on the campus.

The Institute has eight Halls of Residence for boys, namely Hall I to Hall VIII, and one for girls (GH) with total capacities of 3433 and 350 for boys and girls respectively. In addition, there is accommodation for 60 students in single bedroom apartments (SBRA). The construction of hall of Residence No.9 is in planning stage.

The Halls have single and double seated rooms. Presently, most of the senior undergraduate and all post graduate students are given single-seated rooms, while most of first and second year and some third year B. Tech. and M.Sc., (Integrated) students and Ist year M. Sc.(2 Yr.) are living in double seated rooms. Each Hall has a mess of which every hall resident is a member. The Halls of Residence also have a well subscribed reading room, TV room, TT rooms, badminton and volley ball courts, canteen, library (with the books on general topics) and several hobby clubs. The affairs of these amenities in each Hall are managed by (i) the respective committee of students for the amenities and (ii) a central Hall Executive Committee (HEC) under the overall guidance and supervision of three wardens (two for Hall-VI). The overall management of the Halls of residence is through the central Hall Management Council (HMC). The Council of Wardens (COW) looks after the affairs of mess workers.

In addition to students, staff working in various research projects of the Institute are also provided accommodation in the halls depending upon the availability of the rooms. The boarding and lodging arrangements for the participants of conferences and short-term courses are also made in the Halls of Residence.

Single Bed Room Apartments (SBRAs)
Depending on the availability, the accommodation in single bedroom apartments (SBRA) is provided to married students. In exceptional cases bachelors, on specific medical grounds, may also be provided SBRA accommodation. A Married Students Welfare Committee (MSWC) manages the affairs of SBRAs under the supervision of the Warden-in-Charge.
FINANCIAL ASSISTANCE TO STUDENTS

All possible efforts are made by the Institute to render financial assistance (i) in the form of scholarships and (ii) short-term loans to needy and deserving students during their stay at the Institute. Short-term loans are given to some students, depending on the requirement of the case, out of the Students' Benefit Fund (SBF) so that their minor financial emergencies are overcome. The details of the financial assistance offered to the students at the Institute are given below:

SCHOLARSHIPS

Undergraduate Students

Merit-cum-Means (MCM) scholarships of the value of Rs.500/- p.m. with tuition fee waiver are awarded per semester to students up to 25% of the total strength enrolled in each of the batches of the B.Tech., M.Sc. (Intg.) and M.Sc.(2yrs) programmes provided that the income of their parents does not exceed Rs.1,00,000.00 p.a. In the previous financial year, 20% of the total number of available MCM scholarships in each batch are reserved for students belonging to SC/ST category. SC/ST students not in receipt of scholarships from any other source including the State Governments or Directorate of Harijan and Social Welfare are eligible for the MCM Scholarships.

In addition, several students of the B.Tech./M.Sc.(Int.) and M.Sc. (2 yrs) programmes are in receipt of the financial assistance through scholarships, stipends and grants from Central and State Governments, Directorate of Education and other organizations. Table-I shows various scholarships awarded to undergraduate students during 2003-2004.

TABLE I (A) SCHOLARSHIPS FOR B.TECH. / M. SC. (INT.) 2003-2004.

<table>
<thead>
<tr>
<th>Undergraduate Scholarships</th>
<th>B.Tech./M.Sc. (Int.)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>MCM @ Rs.500/- p.m. with Freeship</td>
<td>93</td>
</tr>
<tr>
<td>Freeship</td>
<td>-</td>
</tr>
<tr>
<td>Free Basic mess plus Pocket Allowance @ Rs.125/-p.m. (For SC/ST)</td>
<td>17</td>
</tr>
<tr>
<td>NTS Scholarships</td>
<td>11</td>
</tr>
<tr>
<td>Punjab Education Board</td>
<td>-</td>
</tr>
<tr>
<td>SBI Scholarships</td>
<td>2</td>
</tr>
<tr>
<td>Lalit Narain Das Memorial Scholarships</td>
<td>-</td>
</tr>
<tr>
<td>Kinra Scholarships</td>
<td>1</td>
</tr>
<tr>
<td>IWA Bonn Scholarships</td>
<td>-</td>
</tr>
<tr>
<td>Neeraj Kapoor Memorial Scholarships</td>
<td>-</td>
</tr>
<tr>
<td>RRMES Scholarships</td>
<td>3</td>
</tr>
<tr>
<td>Pt.Balajee G Hardiker Scholarships</td>
<td>1</td>
</tr>
<tr>
<td>Post Matric Scholarships (A P)</td>
<td>1</td>
</tr>
<tr>
<td>PNB Scholarships</td>
<td>-</td>
</tr>
</tbody>
</table>
CSIR Scholarships  - - - 1 -  
ACC Scholarships  - - - 1 -  
Coal India Scholarships  - - - 1 -  
Dr. V. Rajaraman Scholarships (2) Rs. 1000/- p.m.  - - - 1 -  
Tata Iron Steel Co. Ltd. (TISCO)  2 - 2 3 -  
BSNL  3 3 - 2 -  
Indian Oil Scholarships  2 - - - -  
KVPY Scholarships  3 3 5 5 -  
Central Coal fields  - - - 1 -  
Govt. of Rajasthan  - 1 - - -  
Govt. of UP  - - - - -  
Dr. D. R. Bhagat Scholarship Rs. 2000/- pm for 10 Months  - - 2 - -  
A. K. Vasudev Scholarship Rs. 2000/- pm for 10 Months  1 - - - -  
Govinda & Indira Srikanth Scholarship Rs.2000/-pm for 10 Months  - - 1 - -  
Anil and Reshma Nigam Scholarship Rs. 2000/- pm for 10 Months  1 - - - -  
Anurag Bartaria Scholarship Rs. 500/- pm for 9 Months  1 - - - -  
Pratibha Scholarship (Govt. of Andhra Pradesh)  19 1 4 1 -  
Prof. Netar Lal Kapur Scholarships  1 - - - -  
Govt. of Maharashtra  - 1 - - -  

**TABLE 1 (B) : SCHOLARSHIPS FOR M.Sc.(2 years) 2003-2004**

<table>
<thead>
<tr>
<th>Undergraduate Scholarships</th>
<th>M.Sc. ( 2 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I yr.</td>
</tr>
<tr>
<td>MCM @ Rs.500/- p.m. with Freeship</td>
<td>17</td>
</tr>
<tr>
<td>Freeship</td>
<td>-</td>
</tr>
<tr>
<td>Free Basic Mess Plus Pocket Allowance @ Rs.125/- p.m.</td>
<td>-</td>
</tr>
<tr>
<td>Dr. R.C. Shrivastava Memorial Scholarships</td>
<td>-</td>
</tr>
</tbody>
</table>

Student's Benefit Fund (SBF) also provides scholarships of the value of Rs.400/- p.m. to the needy students. 37 scholarships from the SBF were provided during the year 2003-2004.

**Postgraduate Students**

The amount of teaching/research assistantship or fellowship for M.Tech. students is Rs. 5000/- p.m. while that for Ph.D. students in engineering disciplines was (a) Rs.9500/- for first two years and (b) Rs.10,000/- for subsequent years. The amount of assistantship or fellowship for Ph.D. students in Physics, Chemistry, Mathematics and Humanities and Social Sciences was (a) Rs.8000/- p.m. for the first two years of their programmes and (b) Rs.9000/- p.m. for subsequent years, with stipulation that these students will put-in additional hours of work in departments.
EDUCATIONAL GRANTS TO POSTGRADUATE STUDENTS
The Institute gives financial assistance to the M.Tech./Ph.D. students who are in receipt of Institute Scholarship in the form of grant for (a) the preparation of thesis, (b) purchase of books and stationary items and (c) charges for photocopying. The amounts of grants given under these heads are summarized in Table II.

Table II: Amount of Educational Grants given to Postgraduate Students

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thesis Preparation Aid</td>
<td>3,000.00</td>
<td>750.00</td>
</tr>
<tr>
<td>2</td>
<td>Purchase of Stationary Items and payment of photocopying charges or purchase of books</td>
<td>5,000.00</td>
<td>750.00</td>
</tr>
</tbody>
</table>

LOANS / GRANTS FROM THE STUDENTS' BENEFIT FUND (SBF)
Ten students were provided Short Term Loan out of the Students' Benefit Fund during the 2003-2004 and eighteen students were provided reimbursement of medical expenses who were hospitalized during 2003-2004.

SPECIAL ASSISTANCE TO SC/ST STUDENTS
Rules for admission to undergraduate programme through JEE are relaxed for the SC/ST categories of students. 15% of seats are reserved for the Scheduled Caste (SC) and 7.5% for the Scheduled Tribes (ST) students. A separate merit list is drawn for those SC/ST students, who appear for the Joint Entrance Examination. Cut-off point for calling them for the Counselling and thereafter for the offer of admission is based on the relaxed criterion.

In addition, SC/ST students are also selected from among the list of students who do not qualify for the admission for a one year preparatory course scheme. 36 candidates belonging to the SC/ST category were granted admission for the one year preparatory course out of which 22 took admission at the Institute during 2003-2004.

All the SC/ST category students get tuition freeships irrespective of their parent's income. Concession of free messing (basic menu only) plus pocket allowance of Rs.125/- p.m. and room rent exemption are admissible to these SC/ST category students whose parents income does not exceed Rs. 1,00,000/- p.a, in the previous financial year.

One fifth of the Merit-cum-Means (MCM) scholarships are reserved for the SC/ST category of students. MCM scholarship of Rs.500/- p.m. with free tuition fee is awarded to those registered SC/ST students who are not in receipt of scholarships from any other source including the State Directorate of Harijan and Social Welfare, and whose parents'/ guardians' income in the year preceding the award does not exceed Rs. 1,00,000/- per year.

SC/ST students who are eligible or are in receipt of the Post Matric Scholarship are given an allowance of free basic mess plus pocket allowance of Rs.125/- p.m.
While granting any financial assistance other than the teaching/research assistantship or fellowship available to all the students, including SC/ST students, the SC/ST students are given special consideration.

**AWARDS AND PRIZES TO MERITORIOUS STUDENTS**

The students at IIT Kanpur are engaged throughout their programme in various academic, co-curricular and extracurricular activities. The outstanding students are given various awards and prizes for their achievements in their activities. Table III shows the awards and prizes given during 2003-2004. In addition, 7% students in order of merit in each year are given a Certificate of Merit and a Notional prize of Rs. 400/-

**Table III: Awards And Prizes (2003-2004)**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Awards and Prizes</th>
<th>B. Tech./ M. Sc. (Intg.)</th>
<th>M. Sc. (2 Yrs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>President Gold Medal</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>2.</td>
<td>Directors Gold Medal</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>3.</td>
<td>General Proficiency Prize (Silver Medal)</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>4.</td>
<td>Proficiency Prize (Best Project)</td>
<td>25</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Cadence Gold Medal</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>6.</td>
<td>Cadence Silver Medal</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>7.</td>
<td>Prof. Adidam S. R. Sai Memorial Gold Medal</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>8.</td>
<td>Prof. Adidam Sri Ranga Sai Memorial Medal</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>9.</td>
<td>Ratan Swarup Memorial Prize Rs. 400/-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>10.</td>
<td>Banco Foundation Prize (ME) Rs. 500/-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>11.</td>
<td>Mars G. Fontana Prize (MME) Rs. 400/-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>12.</td>
<td>Sridhar Memorial Prize (EE) Rs. 600/-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>13.</td>
<td>Ajai Agarwal Memorial Prize (ME) Rs. 1000/- Share</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>14.</td>
<td>Tata Consultancy Services Prize Rs. 5000/- each Dept. share</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>15.</td>
<td>Jayesh Memorial Award Rs. 30000/-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>16.</td>
<td>Aditya Birla group of Industries Scholarship of Rs. 65000/- each student.</td>
<td>10</td>
<td>-</td>
</tr>
<tr>
<td>17.</td>
<td>Dr. Sangeeta Goel Memorial Award</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>18.</td>
<td>Prof. Bal Deva Upadhyaya Memorial Gold Medal</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>19.</td>
<td>Notional Prizes</td>
<td>77</td>
<td>6</td>
</tr>
<tr>
<td>20.</td>
<td>O. P. Bajaj Memorial Award</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>21.</td>
<td>Amit Saxena Memorial Award</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>
ACTIVITIES OF STUDENTS’ GYMKHANA
As mentioned above, academic activities are only one facet of student's life at IIT Kanpur. Our students actively participate in various extra and co-curricular activities focussed towards the holistic development of their mind and body. The year 2003-2004 also saw a very active calendar in the form of various games and cultural events.

Games & Sports Activities
In the arena of sports IIT Kanpur came up with a creditable show in the inter IIT sports meet held at IIT Bombay. The team finished fourth in the General championship and had a number of podium performances both in the team and individual events. To strengthen the sports culture, an inter-hall games event called JOSH was also organized which witnessed mass participation from the students.

The Nature Club organized several Bird Watching expeditions, and to the surprise of many found out very rare species of birds in our own IIT Campus. The Club also organized tree-labeling Campaigns. The Club also started on a new activity which is Insect Study which has now many enthusiastic participants.

The Tae-kwon-do Club is growing slowly but steadily. The Club has now more than two hundred members who come regularly. The Club is also taking out students to take part in the District Championships where the students performed credibly.

UDGHOSH, the Annual Inter Collegiate Sports Festival of IIT Kanpur, Udghosh 2003, was held from 6th to 9th of November 2003. The Festival witnessed a healthy participation form eminent Colleges from all over India.

This year we had 368 participants (excluding home team) from 13 different Institutes from all over India. They are:
1. Rajlakshmi Engineering College, Chennai
2. Dr B R Ambedkar N I T, Jalandhar
3. MNNIT, Allahbad
4. Bhilai Institute Of Techonology, Durg
5. Assam Engineering College, Guwahati
6. Jaypee Institute Of Information Technology, Noida
7. L. E. College, Morbi
8. Canning Institute, Lucknow
9. Institute Of Engineering & Rural Technology Allahabad
10. It Bhu, Varanasi
11. Marine Engg And Research Institute, Kolkata
The following games were held:

- Athletics
- Cricket
- Basketball (M/W)
- Badminton (M/W)
- Table Tennis (M/W)
- Tennis
- Football
- Hockey
- Volleyball

Director, IIT Kanpur, inaugurated the function. The inauguration ceremony was highlighted by Air Show, which included Aero-Tow glider and all composite aircraft Hansa. All major games were held in floodlights – Football, Basketball and Lawn Tennis. Badminton and Table Tennis were organised till late night in the indoor stadium. Festival witnessed little less participation in Women events, where as registrations for Men events were surplus. The festival was organised within constraint financial limits and the conduction throughout was smooth without any disciplinary problems. IIT Kanpur had the highest total number of points, but the General Championship was given to Dr. B. R. Ambedkar N.I.T. Jalandhar.

Cultural Activities

ANTARAGNI - The year 2003-04 witnessed one of the better editions of Antaragni, the all India inter collegiate cultural festival of IIT Kanpur. It was held in the beautiful IIT Kanpur campus from 30th October to 2nd November 2003. This year we had the maximum number of students participating in Antaragni as compared to its previous editions. The number of participants increased to 750 from 40 different colleges which is more than double as compared to previous year.

To name a few colleges we had participants from MNIT Jaipur, MBM Engg. College Jodhpur, Jesus and Mary College New Delhi, JSS Noida, Miranda House Delhi, Patna Women’s College Patna, IIT Guwahati, IIT Delhi, IT BHU, Wigan & Leigh College Bangalore, SVNIT Surat, Indraprastha College Delhi, IT College Lucknow, Prestige Institute of Management Indore, IIM Lucknow, Lady Irwin College Delhi, Era Medical College Lucknow and Dehradun Institute of Technology Dehradun.

Antaragni was inaugurated in Auditorium on 30th October. Deputy Director IIT Kanpur, Dr.Kripa Shanker was the chief guest for the opening ceremony. It was followed by the IIT Kanpur show wherein entire IIT campus combined to deliver some outstanding performances in dance, musical and dramatics events.

There were events and competitions in various categories like fine arts, literary competitions, quiz, dance, music, drama, fashion and personality. Photography competition was
reintroduced in Antaragni. It had sub categories like nature, portrait, digital photography, fashion and photo journalism. The structure of personality competition was changed. This time only one best personality was chosen among boys and girls and was given the title “El Major – the best one”. No separate titles were given for boys and girls. Synchronicity – the Rock Night saw some of the best bands in the country battling it out to prove their superiority. Apart from these highly participated and enthusiastically witnesses events we had some professional nights as well. Mr. Balkrishna Sharma from AIR Lucknow and his group gave a brilliant performance in Dadra, Thumri, Kathak and Jugalbandi of Sarod and Tabla as part of the Classical Night. Two very famous POP bands of the country Aryans and Euphoria casted their spells on a gathering of 5000 people in the Auditorium grounds on evenings of 1st and 2nd November respectively. With the Euphoria Night, Antaragni ended on a very high note.

This year we introduced a running trophy in Antaragni. Points were awarded to teams for winning any event. Points tally was maintained and displayed in SAC throughout Antaragni. Based on this tally Patna Women’s College won the First Antaragni trophy. The trophy was awarded by the Festival Chairman, Dr. Somenath Biswas, on the final day. The home team IIT Kanpur was not considered for the Antaragni trophy.

It would not have been possible to organize an event of this scale without the financial aids provided by the Institute and the sponsors. The festival fee that was collected along with the registration fee from the students was very helpful in initial stages. It ensured that there was no financial shortage at any stage. Our major sponsors were Bajaj Almond Drops Oil and Hameed Media Pvt. Ltd.

The feedbacks for Antaragni were very positive. The feedback forms collected from the visiting teams were very encouraging for the organizing team. The student and campus community seemed very much satisfied with the conduction of the festival.

In nutshell Antaragni was successful in all terms. It was financially disciplined, witnessed heavy participation and had more than 50 events in various categories. The organizing team feels contended with its efforts. It was definitely in matching with the stature of IIT Kanpur, which always inspires us to achieve excellence and perfection in work.

UMANG - IIT Kanpur celebrated the New Year with a festival of films that promises to bring the best from the world of lights and sounds. This year Umang, the film festival of IIT Kanpur was held from 14th January 2004 to 18th January 2004. The weeklong event provides wholesome entertainment to all movie buffs.

The 2004 edition of Umang brought to the campus five days of non stop movie fun, movies spanning the wide panorama of English, Hindi, Regional and foreign language films and ranging from all time classics to the most cherished pieces of cinema. The purpose was to promote and nourish the spirit of meaningful cinema. A total of 11 widely acclaimed movies
of all times covering a wide genre were screened in a span of five days. Bringing the best movies to audience is the aim of this event and it never disappoints the people.

Apart from movie shows, various workshops and competitions were held. There was a film quiz for people fond of movie trivia. Quizzing is a popular activity in IIT Kanpur and ‘Umang’ caters to the taste of these individuals with the quiz. The quiz attracted a huge participation and after the elimination round, the quiz became really tough. There were also audience prizes in the form of chocolates that adds interest for those who could not make the cut in the elimination round.

A film festival is incomplete without the extremely popular pastime of India, ‘Antakshari’. A contest that was thoroughly enjoyed by the participants, the audience, and the comparer, made it a necessary part of the festival.

A very major part of the festival was the movie-making contest, termed ‘Director’s Cut’, which gave an opportunity to the amateur moviemakers to express their creativity by producing a 20-minute film. Equipment required for the making of the film was provided and within a stipulated amount of time, the ‘Directors’ had to submit the completed work. The submitted movies were shown during the interval of the movies screened as part of the festival. It was an activity that was enjoyed by many as it introduced them to the technical aspect of film making and being students of a technical institute they enjoyed it a lot.

This year, a new event was introduced, ‘Brio – The Animation Workshop’. Animation movies today are extremely popular. Earlier, it was a purely artistic work but these days, with the advent of computers and modeling softwares, they have become really technical. The workshop was aimed at introducing animation enthusiasts to the techniques in this field.

In nutshell Umang was successful in all terms. It was financially disciplined and witnessed heavy participation. The organizing team feels contended with its efforts. The feedbacks for Umang were very positive and encouraging for the organizing team. The student and the campus community seemed very much satisfied with the conduction of the festival.

**TECHKRITI** was held from 26th Feb to 29th Feb 2004. The aim of the festival this year was to motivate the participation of a general student and break the hype that participation and winning in technical festivals is beyond the scope of an average student. However this was not achieved at the cost of the level of difficulty of problems or the standard of participation. We introduced some new events wherein an average student can participate and hence can associate himself with the festival. As far as the participation is concerned, we witnessed an immense increase in participation as compared to last year. Moreover with the introduction of International Online Programming Contest, Techkriti 2004 witnessed international participation for the first time since its inception.
Techkriti was inaugurated by Director, IITK Dr. Sanjay Govind Dhande. The inauguration ceremony was also attended by Dean Students’ Affairs, Dr.C.Venkatesan, Festival Chairman Dr. Shyama Prasad Das and General Secretary Science and Technology, Mr. Amit Bansal.

This year a new event “IndEx—the industrial exhibition” was introduced to give a platform to industries to interact with students and encourage product based research amongst students. Companies like Tata Motors, Sans Motors, Ford, Whirlpool, and Philips participated in this event.

This year Techkriti witnessed a record participation of 510 students from 77 engineering colleges and 11 schools across the country. In our endeavour to connect the entire campus community with Techkriti, we introduced three innovative events:

a) **Laser Show**: In this show, laser technology was used to display the synchronization of laser beams with music.

b) **Hypnotic Show**: In this show, hypnotism was demonstrated as a science along with a lecture on hypnotism by Dr.V.Nagesh (a leading Indian hypnotist with numerous records in his name).

c) **Aeromodelling Workshop**: This workshop was conducted by Mr. P. Eswar from Bangalore. Nine groups were trained to make manual and autonomous aircraft models for a period of 3 days and these models were then displayed to the entire campus community on the closing day of the festival as a show which was enjoyed and appreciated by all.

Such shows helped immensely to free Techkriti from an image in which it was considered to be a festival meant only for exceptional students.

The major event in Techkriti this year was “Endeavour – the functional model contest”. Around 25 teams exhibited their models in which they displayed the latest developments in the field of science and technology. Other events included competitions in robotics, coding, hacking, circuitry, paper presentation, quizzes and model making contests. In all the events, there was an enormous participation from outside as well as from the students of IIT Kanpur. We were able to motivate a larger chunk of the campus community to participate and witness the events.

We were able to collect sponsorship to the tune of Rupees 15 lakhs apart from the grant provided by the institute. The major sponsors in Techkriti were Sun Microsystems, Tata Motors Limited, Trilogy, Juno Online, NIIT, ACM, State Bank of India and Union Bank of India. Adequate funds at our disposal enabled us to distribute a record prize amount of Rupees 4 Lakhs with a motive to enable the winning participants to go for a further development in their projects. We also spent a substantial amount in improving the infrastructural base of our events which is usually found to be lacking in the institute festivals. Thus lucrative prizes and good infrastructure enabled us to increase the popularity and relevance of the events.
All the events in Techkriti were conducted smoothly and feedback received from the
participants was very encouraging. The quality of food and hospitality were praised by all.

Compulsory Physical Activities (CPA)

With the objective of a sound physical health and an all round development of personality of
students, several co-curricular and extracurricular physical activities have been integrated as
Compulsory Physical Activities (CPA) with the regular curriculum at IIT Kanpur. The
streams of activities are:

1. Games and Sports
2. National Cadet Corps (NCC)
3. National Service Scheme (NSS)
4. Yoga
5. Tae-Kwando

All the 1st year students admitted in the B. Tech. /M. Sc. (Integrated) programme are
required to exercise their option for one of the above activities at the time of registration
under the course PE. The two courses PE 101 and PE 102 constitute Compulsory Physical
Activities (CPA) at IIT Kanpur.

National Cadet Corps (NCC)

It is a matter of grate pride that the National Cadet Corps (NCC) has been spearheading the
youth movement in the country. It has played an important role in propagating the ideals of
secularism, national integration and selfless service, which are ever so essential in the
present day context. During the past 56 years, the NCC has come a long way. It has grown
into a vibrant youth organization and has made substantial contribution for creation of
disciplined, and well-motivated citizens, ready for service of the nation. Its credentials as
the largest youth organization engaged in grooming the youth and endowing them with
qualities of character, comradeship and leadership are unquestionable.

The NCC is authorized and administered by the Govt. of India as an integral part of its
National Plan. For the successful implementation of the NCC Programme, the scheme has
been inter-woven with the National Education Programme. In order the thoroughly groom
the NCC cadets to be tomorrow leaders, they are exposed to every facet of the multi-
dimensional training programme in as realistic a manner as possible. Due emphasis is given
to constantly update and refine training method and ensure its proper implementation. The
NCC training strives to inculcate in cadet the qualities of leadership, discipline, courage and
corporate living, which stands them in good stead in whatever vocation they choose. The
various activities undertaken by the NCC cadets, such as mountain craft, rock climbing,
skiing/jumping, camping, gliding and flying and sea faring provide students an immense
opportunity to be nature friendly and helps in self discovery.
With above aims, like in previous year, the NCC unit at IIT, Kanpur endeavored to carry out the ‘Grooming Tomorrows Leaders’ during 01 April, 2003 to 30 June, 2004 by conducting the following important activities:

- **Van Mahotsav.** The unit organized a tree plantation programme to celebrate ‘Van Mahotsav’ in August 2003. About 150 enthusiastic cadets were involved in planting approximately 100 saplings of neem, jamun, mahua etc. Professor of Economics, Dr. Binayak Rath was invited to give a talk to the students on the importance of tree plantation. The cadets were greatly motivated by the talk and were encouraged to look after the plants during their stay at the institute.

- **Cancer Awareness Programme.** The NCC cadets organized a cancer awareness programme in November 2003 at the Nankari village near IIT, Kanpur. Help of doctors from the JK Cancer Hospital, Kanpur was taken for conduct of the event. Approximately 400 men, women and children from nearby villages attended the programme. The programme was conducted with an aim of spreading awareness and knowledge about cancer amongst the poor villagers.

- **Rock Climbing Course.** During the ensuing period a total of 74 NCC Cadets of IIT, Kanpur underwent short Basic Climbing Course, in two batches. Besides, the students also visited the nearby areas of naintal for the purpose of nature study and to gain knowledge about the local flora and fauna.

- **Para Sailing.** NCC Cadets underwent a para sailing camp for two days in March 2004. The activity was conducted to instill a sense of confidence in the cadets a part from inculcating such qualities as camaraderie and a spirit of adventure, which are so essential in life. A total of 115 cadets participated. A total of 197 para sailing launches were achieved in the two days.

- **Motivational Lecture.** Veteran freedom fighter, Captain Laxmi Sehegal. Padma Vibhushan, visited the NCC unit in April’ 2004 and delivered a lecture to the cadets. She captivated the audience with her energy and an inspiring talk. She called upon the young cadets to root out corruption from the society and to lead simple and harmonious life.

- **Small Arms Firing.** It is one of the most important aspects of training of NCC cadets. It is ensured that all NCC cadets are put through rifle firing. During the period a total 144 of cadets of IIT, Kanpur were made to fire rifles.

- **Participation in Independence Day & Republic Day Parades.** Every year approximately 60 NCC cadets take part in Independence Day and Republic Day parades that are held at the Indian Institute of Technology (IIT), Kanpur.

- **Anti Dowry Pledge.** On joining the NCC, each cadet is made to undertake a Anti-Dowry Pledge. The importance of his pledge and the negative aspects of a social evil like Dowry is explained to each cadet on joining the NCC. During the period all 161 cadets took the above pledge.
National Service Scheme (NSS)
The Scheme provides the most diversified opportunities to the students to upgrade their personality through social add community service of different variety, suiting different aptitudes and needs. Special emphasis is laid on tutorial assistance to the weaker sections of the campus. The students volunteers participated in teaching at the opportunity school. Some volunteers visited nonformal schools. NSS volunteers visited nearby villages for distributing books and demonstrating science experiments.

Yoga
Classes to train students in Yoga, as one of the stream of PE courses, were conducted during both the semesters of 2003-2004 successfully by a yoga teacher. These classes included Joints and Glands exercises, Asanas (Postures) in standing, sitting and lying positions, Mudras ( Gestures), Bandhas (Locks), body cleansing Kriyas (techniques); Pranayama (Breathing exercises) and Meditation. Counselling is also provided to students for solving their personal physical, mental and emotional problems through yoga.

Tae-Kwon-Do
The new scheme of Tae-Kwon-Do as approved by the Senate was introduced from the year 1998-1999. A total of 58 students registered for this stream in the year 2003-2004. It was found to be extremely popular.

Swimming Pool
Institute has a full size (50x20 meters) Swimming Pool for its students, faculty and staff and also for their family members. The membership is open to all on payment of a nominal fee. Arrangements have been made to coach beginners in swimming. To ensure maximum safety of the members, life-guards are engaged. The exact rates for these sessions are fixed and notified by the Swimming Pool Management Committee, for regular memberships as well as guest charges. The Pool has been operating for 7 months in a year, i.e. from April to October on monthly basis. Pool is operating in the morning as well as evening hours i.e. 5:30 am to 8:15 am and 3:30 pm to 8:00 pm divided into 45 minutes slots with 15 minutes free time in between. Swimmers and non-swimmers are separated.

STUDENTS’ PLACEMENT
The student’ Placement Office continues to play a vital role in assisting the students in career planning and employment. It was actively engaged in disseminating information of job opportunities and prospects with the employers in both Public and the Private Sectors. Students’ Placement Office has been arranging campus interviews and organizing Paid Summer Internship for students.

Invitation letters were sent to about 700 Industrial Organizations, both in Public and Private Sectors, for visiting our campus for recruitment of students. About 90 organizations participated in On-Campus-Recruitment-Programme during the academic year 2003-2004.
either by sending their top ranking executives to the campus or by calling the students to their Head Office for the interviews.

This year some organizations like Yasu Technologies, TVS Electronics, Skytech, American Express, Market Rx, Citifinancial, Tavant Technologies, Maharashtra Academy, Cendura Software, Transversal e-Network, First Global, Pressure Equipment, ANZ Information Technology, Computer Associates, Epiance Software, Inductis, Verizon, General Motors, Johnson Mattheyu, Asian Paints, and Teng & Associates Inc. have recruited for the first time through On-Campus-Recruitment-Program. The employment scenario during this year has improved to a great extent in comparison with the last two years.

A total number of about 485 offers of appointment have been made till 18.06.2004 to the students by various employers through Students’ Placement Office. A total of 72.01% of the students registered with SPO have received job offers so far. The placement for our B.Tech. students has crossed 83.53% mark this year whereas for M.Tech. students, it was 58.37%.

With the objective of close monitoring and uniform opportunity to all the students registered for placement, the policy introduced was one student one job. However, a new policy was introduced, “Job with appropriate back ground,” especially for those who got an offer in haste initially.

With regard to the In-Plant-Training-Programme during summer vacation for the pre-final-year students, the Students’ Placement Office offered assistance to students of all the engineering departments. About 25 paid Summer Training seats were offered to our students. Statement showing the number of students registered for availing placement assistance and those who received job offers through Students’ Placement Office are given in Table I to V.

About five organizations are in the process to schedule their placement activities in the month of July 2004.

**TABLE I: JOBS OFFERED TO STUDENTS GRADUATING IN THE B.TECH PROGRAMME- 2003-2004**

<table>
<thead>
<tr>
<th>S.N</th>
<th>Discipline</th>
<th>Students Registered</th>
<th>No. of Students Offered One Job - Two Jobs</th>
<th>Total Job Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aerospace Engg.</td>
<td>21</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Chemical Engg.</td>
<td>43</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td>3</td>
<td>Civil Engg.</td>
<td>31</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>Electrical Engg.</td>
<td>75</td>
<td>60</td>
<td>64</td>
</tr>
<tr>
<td>5</td>
<td>Mechanical Engg.</td>
<td>71</td>
<td>58</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>Mat. Met. Engg.</td>
<td>44</td>
<td>39</td>
<td>42</td>
</tr>
<tr>
<td>7</td>
<td>Comp. Sci. &amp; Engg.</td>
<td>49</td>
<td>46</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>334</td>
<td>279</td>
<td>294</td>
</tr>
</tbody>
</table>
TABLE II: JOBS OFFERED TO STUDENTS GRADUATING IN THE M.TECH PROGRAMME – 2003-2004

<table>
<thead>
<tr>
<th>S.N</th>
<th>Discipline</th>
<th>Students Registered</th>
<th>No. of Students Offered</th>
<th>Total Job Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>One Job - Two Jobs</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Aerospace Engg.</td>
<td>10</td>
<td>05</td>
<td>05</td>
</tr>
<tr>
<td>2</td>
<td>Chemical Engg.</td>
<td>32</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Civil Engg.</td>
<td>35</td>
<td>16 - 01</td>
<td>17</td>
</tr>
<tr>
<td>4</td>
<td>Electrical Engg.</td>
<td>26</td>
<td>20 - 02</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>Mechanical Engg.</td>
<td>35</td>
<td>26 -</td>
<td>26</td>
</tr>
<tr>
<td>6</td>
<td>Mat. Met. Engg.</td>
<td>19</td>
<td>04 -</td>
<td>04</td>
</tr>
<tr>
<td>7</td>
<td>Comp. Sci. &amp; Engg.</td>
<td>28</td>
<td>27 -</td>
<td>27</td>
</tr>
<tr>
<td>8</td>
<td>IME</td>
<td>13</td>
<td>10 - 01</td>
<td>11</td>
</tr>
<tr>
<td>9</td>
<td>Mat. Sci. Prog.</td>
<td>07</td>
<td>01 -</td>
<td>01</td>
</tr>
<tr>
<td>10</td>
<td>Nuclear Engg.</td>
<td>--</td>
<td>-- -</td>
<td>--</td>
</tr>
<tr>
<td>11</td>
<td>Envr. Engg. &amp; M.</td>
<td>13</td>
<td>04 -</td>
<td>04</td>
</tr>
<tr>
<td>12</td>
<td>Laser Technology</td>
<td>03</td>
<td>-- -</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>221</td>
<td>129 - 04</td>
<td>133</td>
</tr>
</tbody>
</table>

TABLE III: JOBS OFFERED TO STUDENTS GRADUATING IN THE M.Sc. (5yrs.) PROGRAMME – 2003-2004

<table>
<thead>
<tr>
<th>S.N</th>
<th>Discipline</th>
<th>Students Registered</th>
<th>No. of Students Offered</th>
<th>Total Job Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>One Job - Two Jobs</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Physics</td>
<td>05</td>
<td>04 -</td>
<td>04</td>
</tr>
<tr>
<td>2</td>
<td>Chemistry</td>
<td>09</td>
<td>07 -</td>
<td>07</td>
</tr>
<tr>
<td>3</td>
<td>Mathematics</td>
<td>13</td>
<td>09 - 01</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>27</td>
<td>20 - 01</td>
<td>21</td>
</tr>
</tbody>
</table>

TABLE IV: JOBS OFFERED TO STUDENTS GRADUATING IN THE M.Sc. (2yrs.) PROGRAMME – 2003-2004

<table>
<thead>
<tr>
<th>S.N</th>
<th>Discipline</th>
<th>Students Registered</th>
<th>No. of Students Offered</th>
<th>Total Job Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>One Job - Two Jobs</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Physics</td>
<td>01</td>
<td>-- -</td>
<td>--</td>
</tr>
<tr>
<td>2</td>
<td>Chemistry</td>
<td>05</td>
<td>02 -</td>
<td>02</td>
</tr>
<tr>
<td>3</td>
<td>Mathematics</td>
<td>14</td>
<td>05 -</td>
<td>05</td>
</tr>
<tr>
<td>4</td>
<td>Statistics</td>
<td>09</td>
<td>05 -</td>
<td>05</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>29</td>
<td>12 -</td>
<td>12</td>
</tr>
</tbody>
</table>
### TABLE V: JOBS OFFERED TO STUDENTS GRADUATING IN THE MBA, M.Des. & B.S.B.E. PROGRAMME – 2003-2004

<table>
<thead>
<tr>
<th>S.N</th>
<th>Discipline</th>
<th>Students Registered</th>
<th>No. of Students Offered One Job</th>
<th>Two Jobs</th>
<th>Total Job Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M.B.A.</td>
<td>30</td>
<td>24</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>2</td>
<td>M.Des</td>
<td>10</td>
<td>03</td>
<td>-</td>
<td>03</td>
</tr>
<tr>
<td>3</td>
<td>B.S.B.E</td>
<td>11</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

**JOB POSITION FOR THE YEAR 2003-2004**  
(From Aug.01 to June 2004 as on June 22, 2004)

<table>
<thead>
<tr>
<th>Programme</th>
<th>No of students Enrolled</th>
<th>No. of Students registered in Students’ placement office</th>
<th>No. of students placed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>B.Tech</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerospace Engg.</td>
<td>23</td>
<td>21</td>
<td>15+1$</td>
</tr>
<tr>
<td>Chemical Engg.</td>
<td>45</td>
<td>43</td>
<td>33(1)*</td>
</tr>
<tr>
<td>Civil Engg.</td>
<td>38</td>
<td>31+3</td>
<td>28(4)*</td>
</tr>
<tr>
<td>Computer Sc.</td>
<td>52</td>
<td>49</td>
<td>46(1)*</td>
</tr>
<tr>
<td>Elect. Engg.</td>
<td>92</td>
<td>75</td>
<td>60(4)*+2$</td>
</tr>
<tr>
<td>Mech. Engg.</td>
<td>84</td>
<td>71+3</td>
<td>58(2)*</td>
</tr>
<tr>
<td>M.M.Engg.</td>
<td>48</td>
<td>44</td>
<td>39(3)*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>382</td>
<td>334+(6 Winter batch)</td>
<td>279(15)*+3$</td>
</tr>
<tr>
<td><strong>M.Tech.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerospace Engg.</td>
<td>12</td>
<td>10</td>
<td>05</td>
</tr>
<tr>
<td>Chemical Engg.</td>
<td>34</td>
<td>32</td>
<td>16+1$</td>
</tr>
<tr>
<td>Civil Engg.</td>
<td>43</td>
<td>35(1)*</td>
<td>16(1)*</td>
</tr>
<tr>
<td>Computer Sc.</td>
<td>30</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>Elect. Engg.</td>
<td>40</td>
<td>26</td>
<td>20(2)*</td>
</tr>
<tr>
<td>Mech. Engg.</td>
<td>43</td>
<td>35</td>
<td>26</td>
</tr>
<tr>
<td>M.M.Engg.</td>
<td>48</td>
<td>19+16 (Winter batch)</td>
<td>04</td>
</tr>
<tr>
<td>Envr. Engg. &amp; Mgmt</td>
<td>15</td>
<td>13</td>
<td>04</td>
</tr>
<tr>
<td>I.M.E.</td>
<td>17</td>
<td>13</td>
<td>10(1)*</td>
</tr>
<tr>
<td>Laser Tech</td>
<td>06</td>
<td>03</td>
<td>00</td>
</tr>
<tr>
<td>Material Sc.</td>
<td>15</td>
<td>07+07 (Winter batch)</td>
<td>01</td>
</tr>
<tr>
<td>Nuclear Tech.</td>
<td>08</td>
<td>07 (Winter batch)</td>
<td>00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>311</td>
<td>221+(30 Winter batch)</td>
<td>129(4)*+1$</td>
</tr>
</tbody>
</table>
COUNSELLING SERVICE
Counselling Service is an organization made up of student volunteers, faculty members and staff who offer help and guidance to students on the academic, emotional and financial fronts. During the session April 2003-March 2004, the Counselling Service had two UG coordinators, one PG Coordinator, assisted by 5 UG assistant coordinators and 3 PG assistant coordinators and a team of nearly 73 UG student guides and 23 PG student guides.

Like every year, the activities of the Counselling Service started during the summer with the preparation for welcoming the new batch of students. A well planned brochure including letters from the Head, Counselling service, Student Coordinators, President, Students’ Gymkhana informing them about the practical details of life at IIT Kanpur and other useful information like the bus schedule, academic calendar and the map of the Institute etc. were sent to all the new students before their arrival on the campus. A workshop was organized for the student guides to sensitize them to the problems that the new students assigned to them might face. A group of 5-6 new students was associated with a student guide and a faculty counsellor who facilitated their smooth settlement in the initial stages.
A common Orientation Programme for the new UG and PG students (for 5 days) was organized for the first time during which they were shown around the campus and informed about the various facilities available to them. They were assisted in opening up new bank accounts and were guided through all the official processes of making I-Cards, health booklets, cc logins and the final registration. The Counselling Service also organized a bank presentation where the new students got to know about the various educational loan schemes of the different participating banks. Lectures by the Head, Computer Center and the Games Counsellor were also included.

A Link structure was also formed after the commencement of the academic session in August to take care of academically deficient students. The team consisted of 22 link students and 14 link faculty members associated with every department. Regular meetings were organized to monitor their academic performance. A total of 6 meetings (3 in each semester) were held to discuss the issues related to these students. During the session 2003-04 (I), 58 students were on Academic Probation list and 54 students on Warning. 71 students came out of the list after this semester. A total of 190 students were on AP/Warning during the 2003-04 II sessions.

Group counselling was also introduced during this year to identify the problems of the academically deficient students. 3 such sessions with different groups of students were held. Around 57 students were involved in these sessions. Many students personally met the Head, Counselling and the Counsellor regularly for guidance.

Like the previous year, this year too certain students were recommended the slow paced programme, on the basis of their performance up to the first mid semester examination. Meetings were held with these students to suggest semester wise course plans according to their departments. Two meetings of slow pace committee (one in each semester) were held to review the slow pace policy.

To assist the students having problems in English conversation and comprehension, the Counselling Service organized conversational classes at nominal rates.

A Student Faculty Open House Discussion on the Academic Issues concerning the students was organized in the 2003-04 (II) Session. The forum witnessed active participation from both student and faculty communities and it was realized that more of such sessions should be organized to enhance student-faculty interaction and discussion of academic concerns of mutual interest.

A thesis writing workshop was conducted for the PG students. A total of 70 students attended this workshop.
Like every year, Counselling Service appointed a professional psychiatrist who visited the campus on alternate Saturdays to resolve various psychological problems of the students and an assistant counsellor to support the various activities of the service. A total of 80 students consulted the psychiatrist. In addition to this, psychiatric help was also available outside the campus in cases of emergency through the Counselling service. A proactive initiative by the assistant counsellor motivated students to come forth for guidance in personal and emotional issues. A total of 60 students met her during the period from August 2003- April 2004.

On the financial front, students were provided assistance through SBF scholarships. Around 37 students could avail this facility. Loans were provided to students facing acute financial problems.

In addition to this, volunteers from Counselling Service helped make arrangements for the PM’s visit to the Institute.

In February, the new coordinators both for UG and PG were selected and interviews were held for selecting the new assistant coordinators and student guides for the next session. New faculty counsellors were also appointed as per the choice of the student guides. The new team took charge after the handing over ceremony in April, where the old team was presented badges by the Director.

### FACULTY INCHARGES STUDENTS'S AFFAIRS

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean, Students Affairs</td>
<td>Dr. C. Venkatesan</td>
<td>From 01-01-2003</td>
</tr>
<tr>
<td>Head, Counselling Service</td>
<td>Dr. Amit Ray</td>
<td>Upto 27-04-2003</td>
</tr>
<tr>
<td></td>
<td>Dr. Onkar Dixit</td>
<td>From 28-04-2003</td>
</tr>
<tr>
<td>Chairman, Council of Wardens</td>
<td>Dr. D. Bahuguna</td>
<td>Upto 31.01.2004</td>
</tr>
<tr>
<td></td>
<td>Dr. Munmun Jha</td>
<td>From 01.02.2004</td>
</tr>
<tr>
<td>Vice-Chairman, Council of Wardens</td>
<td>Dr. Munmun Jha</td>
<td>Upto 31.01.2004</td>
</tr>
<tr>
<td></td>
<td>Dr. Utpal Das</td>
<td>From 01.02.2004</td>
</tr>
</tbody>
</table>

### COUNSELLORS, STUDENTS'GYMKHANA

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Counsellor</td>
<td>Dr. C. Venkatesan</td>
</tr>
<tr>
<td>Cultural Counsellor</td>
<td>Mr. Satyaki Roy</td>
</tr>
<tr>
<td>Games Counsellor</td>
<td>Dr. C. S. Upadhyay</td>
</tr>
<tr>
<td>Films Counsellor</td>
<td>Dr. Sanjay Mittal</td>
</tr>
<tr>
<td>Science &amp; Technology Counsellor</td>
<td>Dr. P. Munshi</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Dr. S. Sangal</td>
</tr>
<tr>
<td>Foreign Students' Advisor</td>
<td>Dr. Prabha Sharma</td>
</tr>
<tr>
<td>Chairman Students Benefit Fund</td>
<td>Dr. Onkar Dixit</td>
</tr>
<tr>
<td>Chairman Students' Placement Committee</td>
<td>Dr. Ravindra Arora</td>
</tr>
<tr>
<td>Faculty Advisor, NSS</td>
<td>Dr. V.Subrahmanyam / Dr.H.Verma</td>
</tr>
<tr>
<td>Chairman, Swimming Pool Management Committee</td>
<td>Dr. P. Shunmugaraj</td>
</tr>
</tbody>
</table>
Faculty Advisor, Yoga  |  Dr. B.R. Marwah  
Faculty Advisor, Tae-kwon-do  |  Dr. Vijay Singh / Dr. Satyendra Kumar  

WARDENS

**HALL OF RESIDENCE No. I**  
Dr. R.K. Sullerey, Warden-in-Charge  
Dr. Rajesh Srivastava, Warden  
Dr. F.A. Khan, Warden

**HALL OF RESIDENCE No. II**  
Dr. M.K. Harbola, Warden-in-Charge  
Dr. Satyaki Roy, Warden  
Dr. B.V. Rathis Kumar, Warden

**HALL OF RESIDENCE No. III**  
Dr. P. S. Ghoshdastidar, Warden-in-Charge  
Dr. D. P. Mishra, Warden  
Dr. A. K. Lal, Warden

**HALL OF RESIDENCE No. IV**  
Dr. V. Eswaran, Warden-in-Charge  
Dr. Deepak Gupta, Warden  
Dr. Animesh Biswas, Warden

**HALL OF RESIDENCE No. V**  
Dr. P. M. Dixit, Warden-in-Charge  
Dr. N. V. Reddy, Warden  
Dr. G. Santhanam, Warden

**HALL OF RESIDENCE No. VI**  
Dr. P. Munshi, Warden-in-Charge  
Dr. C.A. Tomy, Warden

**HALL OF RESIDENCE No. VII**  
Dr. A. K. Chaturvedi, Warden-in-Charge  
Dr. Deepak Gupta, Warden  
Dr. S. Manoharan, Warden

**HALL OF RESIDENCE No. VIII**
STUDENTS' GYMKHANA EXECUTIVE
The philosophy followed at this Institute is to involve students at various decision-making levels. The President, Students' Gymkhana and the Convener, Students' Senate are special invitees to the Senate. Students' Senate also sends its nominees for various standing committees of the senate namely EPC, SPGC, SUGC, SSAC, SLC, SSPC and various other users committees. The following list gives the names of students holding various posts of the executive wing of students' Gymkhana.

President - Mr. Udai Singh Pawar/ Ms. Karishma Jain (upto Feb. 2004) Mr. Abhishek Chaudhary (From Feb. 2004.)

Convenor, Students Senate - Mr. Rahul Luthra (Upto Feb. 2004) Mr. Joe Vanghese Yeldho (From Feb. 2004)

General Secretary (Cultural) - Mr. Abhishek Singh/ Mr.Deepak Garg (Upto Feb. 2004) Mr.Mukul Tulli (From Feb. 2004)

General Secretary (Games) - Mr. Nikhil Singh (Upto Feb. 2004) Mr. Mrityunjay Panda (From Feb. 2004.)

General Secretary (Films) - Mr. Anshul Agarwal (Upto Feb. 2004) Mr. Ravi Kumar (From Feb. 2004)

General Secretary (Science & Technology) - Mr. Amit Bansal (Upto Feb. 2004) Mr. Saurabh Nanda (From Feb. 2004)
Services/ Amenities

INSTITUTE WORKS DEPARTMENT
Institute Works Department (IWD) is primarily responsible for the maintenance of capital assets and for providing the following utility services to the resident community:

i. Civil, electrical and air-conditioning maintenance services
ii. Water supply and sewage disposal
iii. Power transmission and distribution
iv. Estate Management
v. Sanitation and upkeep
vi. Horticulture development & Maintenance
vii. Furniture repairs
viii. Roads

In addition to above, IWD also execute the development projects from concept to commissioning. It comprises the following units for facilitating operation & maintenance of services and the construction activity:

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Unit</th>
<th>Responsibility</th>
<th>Unit-in-charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Civil Division - I</td>
<td>Development Works</td>
<td>Executive Engineer</td>
</tr>
<tr>
<td>2</td>
<td>Civil Division - II</td>
<td>Maintenance &amp; up-gradation works.</td>
<td>Executive Engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>i) Water supply, furniture roads.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Domestic/ Central AC maintenance</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Electrical Division</td>
<td>i) Electrical Maintenance</td>
<td>Sr. Electrical Engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Domestic/ Central AC maintenance</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Horticulture</td>
<td>Development &amp; maintenance</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Estate</td>
<td>Estate management &amp; sanitation</td>
<td>Estate officer</td>
</tr>
</tbody>
</table>
During the financial year 2003-2004, IWD has undertaken the following major development works:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of work</th>
<th>Plinth area (sqm)</th>
<th>Capacity</th>
<th>Value of work (in lacs)</th>
<th>Date of start</th>
<th>Date of completion</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Biological Sciences &amp; Bio Engineering Dept. Bldg.</td>
<td>5942</td>
<td>Basement + 3 floors (16 labs.)</td>
<td>550</td>
<td>March’ 02</td>
<td>Oct.-03</td>
<td>Commissioned by Hon’ble Prime Minister on 01.10.03</td>
</tr>
<tr>
<td>2</td>
<td>Hall of Residence for Boys No. - VIII</td>
<td>12850</td>
<td>489</td>
<td>805</td>
<td>Jan.’03</td>
<td>June’04</td>
<td>Work is nearly completed. Four blocks were commissioned in Jan.-04.</td>
</tr>
<tr>
<td>3</td>
<td>Shifting and modification of sub-station No.- IV.</td>
<td>-</td>
<td>4 MVA</td>
<td>153</td>
<td>March’02</td>
<td>April ’03</td>
<td>Work completed and commissioned.</td>
</tr>
<tr>
<td>4</td>
<td>Installation of new sub-station no.-V.</td>
<td>-</td>
<td>2000 KVA</td>
<td>90</td>
<td>March’02</td>
<td>April ’03</td>
<td>Work completed and commissioned.</td>
</tr>
<tr>
<td>5</td>
<td>300 KL capacity overhead tank</td>
<td>50</td>
<td>300 KL</td>
<td>46</td>
<td>March’ 02</td>
<td>July’03</td>
<td>-Do-</td>
</tr>
<tr>
<td>6</td>
<td>RA Hostel (Ph.-II)</td>
<td>2750</td>
<td>60</td>
<td>166</td>
<td>Jan.’03</td>
<td>April’04</td>
<td>Work is in final stage of completion.</td>
</tr>
<tr>
<td>7</td>
<td>Two additional blocks in GH</td>
<td>2054</td>
<td>100</td>
<td>106</td>
<td>Sept.’02</td>
<td>June’03</td>
<td>Work completed &amp; occupied.</td>
</tr>
<tr>
<td>8</td>
<td>8 nos. Type-A &amp; 4 nos. Type-B residences for Visiting Faculty</td>
<td>1379</td>
<td>12</td>
<td>100</td>
<td>Nov.’02</td>
<td>Dec.’03</td>
<td>-Do-</td>
</tr>
<tr>
<td>9</td>
<td>Development of concrete road for new hostels</td>
<td>3 Km</td>
<td>30</td>
<td>01.04.03</td>
<td>31.03.04</td>
<td>All routes completed.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Development of</td>
<td>22,000</td>
<td>35</td>
<td>01.07.03</td>
<td>15.03.04</td>
<td>Works</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Project Description</td>
<td>Sqm</td>
<td>Works Completed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------------------</td>
<td>-----</td>
<td>-----------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Modernization of dining facility in Hall-I &amp; II</td>
<td>1200</td>
<td>10.05.03 31.10.03</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Upgradation of hostels</td>
<td>----</td>
<td>01.04.03 31.03.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Media Lab.</td>
<td>----</td>
<td>25.07.02 09.03.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Horticulture Projects</td>
<td>20</td>
<td>01.04.03 31.03.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Solar water heating systems</td>
<td>6 KL</td>
<td>05.09.03 03.03.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Augmentation of external power supply for Hall-II, III &amp; IV</td>
<td>6</td>
<td>23.01.03 22.07.03</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>200 KL capacity O/H Tank for Type-I</td>
<td>200 KL</td>
<td>30.03.03 18.02.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Development of 4i lab.</td>
<td>8</td>
<td>07.08.03 09.03.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Renovation of Health Centre</td>
<td>25</td>
<td>25.07.02 11.01.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Renovation of residences</td>
<td>14</td>
<td>01.04.03 31.03.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Water proofing works</td>
<td>5</td>
<td>01.04.03 31.03.04</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Air conditioning works</td>
<td>32</td>
<td>10.09.03 24.12.03</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Cable TV Network</td>
<td>20 Km</td>
<td>17.04.03 30.09.03</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>External supply &amp; modification of switch in Hall-II</td>
<td>----</td>
<td>23.01.03 22.07.03</td>
<td>Works completed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Following new projects are at different stages of planning:

- Extension of Library
  i) Hall of Residence for Boys No.-IX (480 capacity).
  ii) Building for JEE/ GATE
STORES AND PURCHASE SECTION

The Stores and Purchase Section is an important service unit to cater to the needs of departments/units for purchase of various equipment, chemicals, glassware, hardware, consumables, stationery etc. and all medicines/pharmaceutical products, Industrial gases etc. for research and general purpose. The procurements are from both indigenous and foreign source.

The Section handles customs clearance of all foreign consignments and matters relating to Import Licenses/Duty Exemption Certificates and other certificates from Government of India. The re-export of consignments to the suppliers for repairs is also done through this section.

During the year 2003-2004 the Purchase Section places 1471 orders valued Rs.27,60,02,294=64 which includes import order numbering 371 costing Rs.16,04,81,169=27. The items order of various categories are as follows:

Central Store procures highly technical items as and when required by the different departments to maintain the pace with science and technology development. It stocks some items of consumable nature like stationery, hardware, and liveries etc. The Central Store has two units, namely Receipt Unit and Issue Unit. This section is headed by a professionally competent Deputy Registrar (Materials) and he is also assisted by a professionally competent team of 22 personnel.

The store also handles disposal of unusable and scrap materials. Clearance of parcels and dispatch of rejected materials to both local and foreign firms for repairs/replacements is also done by this section. It assists the departments in areas like transportation, procurements of furniture etc.

Stores Accounts maintain the expenditure details under working expenses and stationery grants sanctioned to Department/Section etc.

We have been successful in computerizing the transaction both in Purchase, Stores & Import Section. We are processing all Indents through the software developed by Automation Division and each and every function of Stores & Purchase is automated in this financial year. We can generate report as per our requirements as and when needed. We have full connectivity in Central Store through LAN/WAN for complete automation. Maximum correspondence is done by e-mail where it is available keeping in view the speedy action for the
procurement. Store and Purchase is now connected with main frame computer of Computer Center. Full communication with every net user is now possible in campus from Store and Purchase Section. We are also planning to provide the Web based postal, so that department can send electronic indent directly to Central Store and check the status of this indent/Purchase Order/Sanction Sheet on the monitor.

SECURITY UNIT
The security unit of this institute has been in existence its inception and the Institute is situated in the outskirts of Kanpur city. The major responsibility of security unit is to guard and protect the institute property besides human life. In addition security cover is also provided to residential area of the institute campus during night and with limited patrolling during day time. This unit is also responsible for fire fighting, traffic control, maintenance of peace and order on the campus, collection of intelligence reports, investigation of various incidents and other miscellaneous duties pertaining to security assigned by the institute authorities from time to time.

Apart from the officer in charge, Head of the unit, remaining staff include 3 Assistant Security officers, 1 Acting security supervisor, and 13 security guards including 5 Armed

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Category</th>
<th>No. Of Purchase Order</th>
<th>Amount (in Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Import (Institute)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Consumable</td>
<td>52</td>
<td>33,64,804=29</td>
</tr>
<tr>
<td>b</td>
<td>Non Consumables</td>
<td>63</td>
<td>3,46,53,397=63</td>
</tr>
<tr>
<td></td>
<td>Total (a&amp;b)</td>
<td>115</td>
<td>3,80,18,201=92</td>
</tr>
<tr>
<td></td>
<td>Import (Project)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Consumable</td>
<td>83</td>
<td>62,61,011=05</td>
</tr>
<tr>
<td>b</td>
<td>Non Consumable</td>
<td>173</td>
<td>11,62,01,956=30</td>
</tr>
<tr>
<td></td>
<td>Total (a&amp;b)</td>
<td>256</td>
<td>12,24,62,967=35</td>
</tr>
<tr>
<td></td>
<td>Total Imports</td>
<td>371</td>
<td>16,04,81,169=27</td>
</tr>
<tr>
<td>(2)</td>
<td>Indigenous (Institute)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Consumable</td>
<td>311</td>
<td>1,06,12,728=51</td>
</tr>
<tr>
<td>b</td>
<td>Non Consumable</td>
<td>339</td>
<td>3,88,65,451=39</td>
</tr>
<tr>
<td></td>
<td>Total (a&amp;b)</td>
<td>650</td>
<td>4,94,78,179=90</td>
</tr>
<tr>
<td></td>
<td>Indigenous (Project)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Consumable</td>
<td>93</td>
<td>4,764,639=89</td>
</tr>
<tr>
<td>b</td>
<td>Non Consumable</td>
<td>357</td>
<td>6,12,78,305=58</td>
</tr>
<tr>
<td></td>
<td>Total (a&amp;b)</td>
<td>450</td>
<td>6,60,42,945=47</td>
</tr>
<tr>
<td></td>
<td>Total Indigenous</td>
<td>1100</td>
<td>11,55,21,125=37</td>
</tr>
<tr>
<td></td>
<td>Total (1&amp;2)</td>
<td>1471</td>
<td>27,60,02,294=64</td>
</tr>
</tbody>
</table>
Guards. (including one on contractual basis) This unit is holding one jeep and two motor cycles for campus patrolling and other emergency duties round the clock basis. To meet the deficiency of manpower additional security commitments, the Institute has engaged one Assistant Security Officer, one S.I.-8 S/S 5 Armed Guards and 110 Security Guards from SIS Patna (Security and Intelligence Service (India) Ltd.) On contractual basis, but the deficiency of manpower still exists due to regular depletion of permanent Security Staff of the Institute. The SIS unit at this Institute is also holding one jeep for campus patrolling and other emergency duties besides wireless network for better communication.

All possible efforts have been taken to check the thefts/burglary particularly in the field of prevention of crime surveillance over bad characters/trespassers, maintenance of Peace and order successfully on the campus. Some incidents of theft have been reported.

In the residential area, Hall of residences, and in academic area. Some incidents of fire have also been reported in residential and in Academic area, but due to quick information to the security unit fire was controlled/ extinguished by security personnel saving life and property. In some cases of theft the culprits have been apprehended red handed by the security staff and handed over to police for legal action against them. Inspite of many of the maladies and variance the over all performance of this unit has been satisfactory during the year.

**ESTATE OFFICE**

The Institute has a sprawling area of 960 acres having total population around ten thousand. Being a residential campus with 1034 houses in various categories far away from the heart of the city, the Institute had to create its own infrastructure and civic amenities such as sanitation, water supply, sewage disposal and shopping complexes and such facilities which are required for day to day living.

The Estate Office is entrusted with various kind of activities including house allotment, commercial shops management, tendering process of unserviceable materials, eviction of unauthorized occupants, realization of license fee/electric charges from shopkeepers & house allotee’s, estate management and civic amenities.

The Institute has various types of residential accommodation, ie. Type- IA, IB, I, II, III, IV and V out of which type III & above are allotted to Faculty members, Scientists, Research Engineers, group a officers and rest is allotted to other staff. We have mainly four shopping complexes at various locations i.e. one in the heart of campus called as shopping complex and other at Type-II complex, third one at security crossing & forth one at Type-I area consisting of various kinds of 98 shops, which fulfill the basic needs of the residents.

Besides the above shopping complexes, we have 8 hostels for student’s accommodation out of which seven for the boy’s students and one for girl’s students. One new ninth hostel is under construction to meet the demand of student accommodation. Every hostel has a barber
shop, washerman shop, tailoring shop which mainly fulfills the immediate needs of the students. As per demand, we have already been started the operation of the PCOs in most of the hostels.

A new state-of-art building of Biological Sciences and Bio-Engineering department has commenced in operation with approximately 64,000 Sq.feet area. Also the construction of twelve nos residences for visiting faculty completed and used for accommodation.

Looking from the hygienic point of view in the campus, the Estate Office has been operating cleaning, sweeping & up-keeping work in the campus, which has been appreciated by the campus community. The above job is attended by private contractors under supervision of the office.

Further a cable T.V. Network is also being operated 24 hours round the clock by the Institute to provide entertainment to the entire campus community.

Besides, the Estate Office is managing all the activities related to the estate very successfully and cautiously by way of taking all the precautions to solve all types of problems satisfactory. During the financial year 2003-04, the office has realized about Rs. 85,06,746.00 from the different sources.

**MOTOR TRANSPORT SECTION**
The Motor Transport Section of the Institute was established in the year 1962 with a fleet of 4 vehicles. Since then this Section has grown, and now it manages a fleet of 21 vehicles of different types.

A Senior Technical Assistant (SG) and a small team of operation and maintenance staff runs the Section effectively.

As the Institute is situated 16 KM away from the main city, the Motor Transport Section of the Institute has to shoulder the responsibility of providing transport facilities to the Employees and the Campus Community. The main services provided are:

1. Various Transport needs of Institute Department's student and employees.
2. Carriage of materials to and from various places for Institute work.
3. Transporting school/college-going wards of employees to city for their education and bringing them back.
4. Bringing office and technical staff from city to the Institute and taking them back after work.
5. Providing light vehicles for trips to Railway Station/Airport etc.
6. Educational trips to places of interest.
7. Marketing trips to city for the campus community.
A team of qualified technicians is attending major and minor repairs including maintenance of vehicles. As a result of preventive maintenance measures adopted, the number of breakdowns during the year has been minimized. In order to bring in effectiveness and desired optimal economic benefits, an exercise to re-structure and down size the section is under progress.

Petrol Pump
An Indian Oil Petrol outlet is being financed and run by the Institute under the control of the Motor Transport Section. Apart from providing petrol to Institute vehicles, it also provides petrol to private vehicle owners in and around the Campus.

CAMPUS SCHOOL
Campus school since its inception in the year 1964 has been providing the best possible elementary education to the wards of faculty & employees of the Institute. There are 428 students on roll, 28 highly qualified teachers, 18 supporting staff and the Principal. The infrastructure, easy accessibility, democratic set up and transparency in the school, besides Love and care, safety and security of kids that one finds here may not easily be available in other educational institutions at this level. The school is well equipped with PA system, open shelf library, computers, games and sports, dance & music facilities and above all qualified and devoted teachers.

ACTIVITIES
To uphold socio-cultural heritage of our country different activities, functions, festivals & celebrations are arranged & organized throughout the year. Our kids have ever been equally good in curricular & co-curricular activities & brought many laurels to the school in inter-school competitions. Results speak the truth. They did extremely well in quiz competition, essay competition, art competition, group dance & group song competitions etc. during “Wild Life Week Celebrations” and won the ‘Championship trophy’. Local newspapers as well as the organiser - the Director, Zoological Garden, Kanpur were very appreciative of their performance.

We have introduced “evening co-curricular activities in games & sports” in which 120 students registered their participation. We organised very recently an ‘Inter - school cricket Tournament ’ at elementary Level in which 12 teams of different schools like D.P.S., Mantora, Sir Padampat Singhania, Grunanak, Bright Angles, Opportunity, K.V. IIT Kanpur etc. participated. I am pleased to inform you that the ‘Campus School Cricket team’ won the running trophy of the Tournament besides bagging man of the series award. I am thankful to the Dy. Director who allowed seven Instt. Cricketers to officiate in the tournament as officials and gave away the prizes.I am equally thankful to the Heads of the Deptts. Concerned for their support and co-operation. Our young & energetic P.T.I. Mr. Vikas Victor worked hard with the students day & night to make the tournament successful.
Congratulations to him & his team. Construction of school boundary wall has started and on its completion we may introduce few more activities in the evening with your help, support & co-operation.

You will be happy to know “Dental Health Education Camp” was arranged & organised in the school on 10th & 11th Nov. ‘03, with the help of the Deptt of Community & Preventive Dentistry of Rama Deintal College- Hospital & Research Centre, Kanpur. Posters, models video-show & dental check up of children were carried out in the camp. On the same dates Dr. Sujata Gupta carried out “Eyes Testing” of our children solely on social & honorary basis. I express my sincere thanks to all concerned.

Following mega evens were also celebrated with great zeal and enthusiasm:
(a) ANNUAL SCIENCE DAY: Sept. 27, 2003
   Chief Guest: Prof Gautam Biswas, Dean of Academic Affairs, IIT/Kanpur.

(b) TEACHERS DAY: Sept. 5, 2003 in memory of Sarvapalli Radha Krishnan.
   Chief Guest: Prof. Kripa Shankar, Dy.Director of the Institute

(c) INDEPENDENCE DAY: Aug. 15, 2003

(d) REPUBLIC DAY: Jan. 26, 2004

   After the main functions (with ref. to c & d) were over at the stadium, short programmes were organised in the school followed by sweet distribution.

(e) CHILDREN’S DAY (Baal Diwas): Nov. 19, 2003 in memory of Pt. Jawahar Lal Nehru

   A short programme followed by Art competition. The Principal gave away small gifts all the students of the school.


   Chief Guest: Prof. Kripa Shankar Dy. Director of the Instt.

It was very colourful & successful event appreciated & applauded by all. We are really thankful to the Instt. for live telecast of the programme.

The programme of the day was geared round our dance teacher cum cultural Sec. Mrs. Neeta Agnihotri. I am pleased to inform you that she is awarded Ph.D. Degree in Kathak Dance. My heartiest congratulations!

Following staff members retired from their services:
1. Mrs. M. Rolston Teacher, by virtue of superannuation
2. Mrs. K. Singh, Teacher, by virtue of superannuation
3. Mrs. M. Chatterjee, Teacher, V.R.S.
4. Mrs. M. Katyal, Teacher, V.R.S.
5. Mr. Sone Lal, Cleaner, V.R.S.

A party was arranged to bid them farewell in which their sincere & valuable services were recalled. We wish them very happy, prosperous & peaceful long life.

I express my sincere thanks to all concerned- the parent organisation, its different depts. & units, parents & well wishers, colleagues & Staff members for their co-operation & support to make all the events successful.

HEALTH CENTRE

Health Centre had been established with the objective of addressing health needs of the Institute Community. Health Centre provides services round the clock to meet out this objective. Health Centre is manned by 9 Medical Officers and Medical Advisor of the Institute. Apart from the Medical Officers, it is equipped with a Pathology & Biochemistry lab, X-Ray Unit, Dressing Unit, Pharmacy and Nursing Station.

The details of the Health Centre services provided for the period with effect from 1.4.2003 to 31.03.2004 is as follows:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Annual Performance</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Number of Patients treated in OPD</td>
<td>64210</td>
</tr>
<tr>
<td>2.</td>
<td>Number of Student treated</td>
<td>9713</td>
</tr>
<tr>
<td>3.</td>
<td>Number of Patients treated in Indoors</td>
<td>1195</td>
</tr>
<tr>
<td>4.</td>
<td>Number of Patients treated in Homeopathy OPD</td>
<td>4814</td>
</tr>
<tr>
<td>5.</td>
<td>Number of Surgical Operation (Minor)</td>
<td>47</td>
</tr>
<tr>
<td>6.</td>
<td>Number of Deliveries</td>
<td>20</td>
</tr>
<tr>
<td>7.</td>
<td>Number of Plastering</td>
<td>99</td>
</tr>
<tr>
<td>8.</td>
<td>Number of Surgical Dressing</td>
<td>8191</td>
</tr>
<tr>
<td>9.</td>
<td>Number of Injections</td>
<td>28387</td>
</tr>
<tr>
<td>10.</td>
<td>Number of Pathology Test and Bio-Chemistry Test</td>
<td>33965</td>
</tr>
<tr>
<td>11.</td>
<td>Number of Family Planning Operation (Tubectomy)</td>
<td>Nil</td>
</tr>
<tr>
<td>12.</td>
<td>Number of E.C.G.</td>
<td>676</td>
</tr>
<tr>
<td>13.</td>
<td>Number of Babies attended in Well Baby Clinic</td>
<td>1061</td>
</tr>
<tr>
<td>14.</td>
<td>Number of Measles Vaccine give</td>
<td>110</td>
</tr>
<tr>
<td>15.</td>
<td>Number of BCG given</td>
<td>Nil</td>
</tr>
<tr>
<td>16.</td>
<td>Number of X-Ray done</td>
<td>3040</td>
</tr>
<tr>
<td>17.</td>
<td>Number of Hepatites B vaccine given in Baby Clinic</td>
<td>134</td>
</tr>
</tbody>
</table>
Immunization are done round the year in the Health Centre for protection against Typhoid, Cholera, Tuberculosis, Diphtheria, Pertussis Totanus, Polio and Measles. Facilities for maternity management, family Planning Counselling and Tubectomy Operation are also available.

**VISITORS’ HOSTEL**

Housed in an imposing double storied building and located at a central place, the Visitor's Hostel provides boarding and lodging facilities for the guests newly appointed faculty/staff members and delegates/participants attending various conferences, seminars symposia and workshop.

The Visitor's Hostel can accommodate 170 persons in 70 single rooms (Twin Bed) and 15 double rooms. Out of 70 single rooms, 40 are air-conditioned and out of 15 double rooms, 10 are air-conditioned. All the rooms have attached bath rooms (W.C.). It has 2 dining halls of which one is air-conditioned and a Recreation Room with W.C. facilities attached with this. It also has an air-conditioned Conference Room.

Recently facilities and services have been improved at a professional level, which has increased occupancy rate and messing by about 10% thus increasing in revenue.

A Pioneer Batch Continuing Education Centre Building has also been attached with the Visitor's Hostel. This has one air-conditioned Conference Room. 2 Class Room, Waiting Lounge Pantry and an Ante Room.
Books and Book-Chapters Published

CENTRE FOR LASER TECHNOLOGY


DEPARTMENT OF AEROSPACE ENGINEERING
1. Developed module 1 (of three lectures) for NPTEL, on Finite Elements Methods being currently aired on Eklavya Channel, C.S. Upadhyay.

2. Developing the web-based course on "Finite Element Methods" along with Prof. P.M. Dikshit (ME), C.S. Upadhyay.

DEPARTMENT OF CHEMICAL ENGINEERING


DEPARTMENT OF CIVIL ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING


DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES


DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING


DEPARTMENT OF MATHEMATICS


DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING


DEPARTMENT OF MECHANICAL ENGINEERING


DEPARTMENT OF PHYSICS


Research Papers Published in Journals and Conference Proceedings

CENTRE FOR LASER TECHNOLOGY


10. Effect of NO and ozone on electrical conductivity of ZnO thin films by pulsed laser deposition, 3rd International Workshop on Basic Aspects of Non-equilibrium Plasma


20. Beam hardening in X-ray CT, Proceedings of the National Seminar on Non-destructive Testing, held in Thiruvananthapuram, 11-13 December, 2003, pp. 183-
188, Mishra, K.K., Quraishi, A.M., Mishra, S., Kumar, A., Srivastava, A., Muralidhar, K. and Munshi, P.


DEPARTMENT OF AEROSPACE ENGINEERING


2. Presentation of Ahmadiyas in Islamic Pakistan & Secular India, Mainstream, New Delhi, July 12, 2003, p.6, Kunal Ghosh.

3. Israel's Secret Agenda: Road Map Must Lead to Temple Mount, Mainstream, New Delhi, Sept. 6, 2003, p 19-22 & 28, Kunal Ghosh.


DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO-ENGINEERING


8. Short C=O...C intermolecular contacts for molecular assembly. Accepted by royal society journal CrystEngg Comm. in press, Gitalee Bhattacharjee, G. Savitha and Gurunath Ramanathan.


DEPARTMENT OF CHEMICAL ENGINEERING


37. Estimation for LLE of PIONA families and Its Validation, Computers and Chemical Engineering, Debjit Sanpui, Manish K Singh and Ashok Khanna.


55. Oxidative Dehydrogenation of Propane on V_2O_3-ZrO_2 Catalysts, Catalyst Letters in press, Mahuya De and D. Kunzru.


DEPARTMENT OF CHEMISTRY


29. Magnetic disorder induced enhanced magnetoresistanceLa0.5Sr0.5Co1-xRuxO3, Solid State communications, 125, 103 ( 2003, S. Sundar Manoharan, R. K. Sahu, D. Elefant and C. M. Schneider.


44. ATCUN-like metal binding motifs in proteins: Identification and characterization by crystal structure and sequence analysis, Proteins: Structure, Function, and Bioinformatics, 2004, submitted Sankararamakrishnan, R., Verma, S., Kumar, S.

45. Redox reaction between \([\text{Bu}_4\text{N}]_2\text{[Mo}^{VI}\text{O}_2\text{mnt}_2]\) and thiophenol in relevance to the authoreduction in the crystallization process of oxidized form of sulfite oxidase, Pradeep K. Chaudhury, Kowliki Nagarajan, Anil Kumar, Rabindranath Maiti, Samar K. Das & Sabyasachi Sarkar, Indian Journal of Chemistry, Vol. 42A, Sept. 2003, pp. 2223-2227, S. Sarkar.

46. Maiti Ravindranath, Nagarajan Kowliki, Sarkar Sabyasachi, 2003, Synthesis and structure of \([L]\text{[MoIVO(mnt)2]}\) \(\{L = [(\text{C2H5})_4]^+, [\text{C5H5NH}]^+, [(\text{C2H5})_3\text{NH}]^+, [\text{lysinium}]^2+, \) and \((\text{mnt}2^- + 1,2^- \text{dicyanoethylenedithiolate})\) in relevance to molybdenum cofactor of diverse class of molybdoenzymes, J. Mol. Structure, 656, 169-176, S. Sarkar.


DEPARTMENT OF CIVIL ENGINEERING


27. Some Capacity Building Initiatives in India on Earthquake Risk Reduction, Proceedings of the World Congress on Natural Disaster Mitigation, New Delhi,


30. Analysis of Data from Structural Response Recorders in North and North East Indian Earthquakes,, Transactions of the 17th International Conference on Structural Mechanics in Reactor Technology SMIRT 17, Prague, Czeck Republic, August 2003, Paper no K03-3, Roshan A D, Jain S K and Basu P C.


34. Airborne Altimetric LiDAR-Where does India stand?, GIS@development, 75, May 2003, Lohani, B., and Flood, M.

35. Spatial Information Policy in India, GIM-International, 176, June 2003, Spikes, J., and Lohani, B.

36. Active faults and related Late Quaternary deformation along the northwestern Himalayan Frontal Zone, India. Annals of Geophysics. 465, 2003, 917-936, Malik, J. N., and Nakata, T.


40. Parameters affecting steel anchorages under shear, Proc. of the 25th Annual Meeting of the Japan Concrete Institute, July 2003, Bishnoi, S., Singh, A. and Misra, S.


67. Fluvial dynamics of an anabranching river system in Himalayan foreland basin, north Bihar plains, India, Geomorphology, 60/1-2, 2004, 147-170, Jain V. & Sinha, R.


DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING


27. Indirect symbolic correlation approach to unsegmented text recognition, Workshop on document analysis and information retrieval, Madison, June 2003, S K Mehta, G Nagy, S Seth, Y Lin.


34. Novel Approaches To Vision And Motion Control For Robot Soccer, Proceedings, National Conference on Advance Manufacturing and Robotics, NCAMR04, 10th & 11th January, 2004, CMERI Durgapur, Manu Chhabra, Anusheel Nahar, Amitabha Mukherjee and Apurva Mathad.


DEPARTMENT OF ELECTRICAL ENGINEERING


DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES


27. Hedging Judicial Risks: An Application to US versus Microsoft, Northeast Business & Economic Association NBEA, Montclair State University, Montclair, New Jersey,


32. Ingestion, Digestion and Revulsion of Food and Culture in Anita Desai’s Fasting, Feasting Lucknow Journal of Humanities, Vol. 1, No. 1, Jan-June 2004, pp. 21-30, T. Ravichandran.


DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING


DEPARTMENT OF MATHEMATICS


45, 1-25, 2004, Rathish Kumar, B.V., Bipin Kumar, Shalini, Manimehra, Peeyush Chandra, Raghavendra, V., Singh, R.K., Mahendra, A.


DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING


186


188

34. Effect of prior β processing steps on microstructural refinement during thermomechanical processing of a two phase α+β titanium alloy, Materials Science and Technology, 19, [12], 2003, 1688-1696, K. Mallikarjun, Satyam Suwas, S. Ghosh Chowdhury and S. Bhargava.


36. Microstructural evolution during β processing of the α+β titanium alloy, Ti-6Al-3.2Mo-1.8Zr-0.3Si, Practical Metallography, Vol. 41, [1], 2004, 8-21, K. Mallikarjun, Satyam Suwas and S. Bhargava.


40. Orientation dependence of ferroelectric properties of pulsed laser ablated, Bi\textsubscript{4-x}Nd\textsubscript{x}Ti\textsubscript{3}O\textsubscript{12} films, Applied Physics Letters, 86 [12], 2003, 2414-2416, A. Garg, A. Sneedon, P. Lightfoot, M. Dawber, J.F. Scott and Z.H. Barber.


45. Effect of uncertainty in formation energies of defects in calculations for carrier concentrations in semi-insulating GaAs, Materials Science & Engineering B, 100 [1], 2003, 102-105, Deepak.


76. Some studies on electrodeposited nanocrystalline chromium surface coatings, International Conference on “Advances in Surface Treatments 2003”, International


94. Improvement of toughness of Y-ZrO2: role of dopant distribution, 8th International Conference and Exhibition of European Ceramic Society held in Istanbul, Turkey, June 29, 2003, Bikramjit Basu.

95. Processing of nanoceramics and nanoceramic composites: new results, 8th International Conference and Exhibition of European Ceramic Society held in Istanbul, Turkey, June 30, 2003, Bikramjit Basu.

97. Polysilanes for light emitting diodes, Indo-Italian Workshop on Organic Semiconductors, October 14-17, 2003, Samtel Centre for Display Technologies & Indian Institute of Technology Kanpur, India. Asha Sharma, U. Lourderaj, Deepak, N.Sathyamurthy and Monica Katiyar


100. Control of radiative processes using surface plasmon resonances in metal nanostructures, Excited State Processes in Electronic and Bio nanomaterials 2003, August 11-16, Los Alamos National Laboratory, USA A. Mikhailovsky, J. Ostrowski, M. Katiyar, G. Bazan.


106. Microwave and conventional sintering of premixed and prealloyed bronze, 3rd International Conference on Science, Technology, and Application of Sintering


DEPARTMENT OF MECHANICAL ENGINEERING


34. Comparison of interferometry, schlieren and shadowgraph for visualizing convection during the growth of a KDP crystal from its aqueous solution, accepted for publication in Journal of Crystal Growth, 2004, A. Srivastava, K. Muralidhar and P.K. Panigrahi.


49. Ductile Fracture Prediction in Open Die Forging, Proceedings of3rd JSTP International Seminar on Precision Forging 3rd JSTP ISPF, Organized by Japan


64. Presented two contributed papers at Int. Symposium on Electromachining held at Edinburgh U.K. 31 March to 4 April. on:
   i. Electrochemical deep hole drilling in superalloys for turbine application by D.S.Bilgi, V.K.Jain, R.Shekhar
   ii. Parametric study of magnetic abrasive finishing MAF process by D.K.Singh, V.K.Jain, V.Raghuram


75. Multi-speed gearbox design using multi-objective evolutionary algorithms. ASME Transactions on Mechanical Design, 1253, 2003, 609-619, Deb, K. and Jain, S.


81. Published a paper in the special issue of Journal of Materials Processing Technology on Tool Wear Prediction in Turning co-authored by P. Srinivas Detailed version of the paper presented in the conference.


86. Effect of Additives on Departure Site Spacings in a Horizontal Tube Falling Film Absorber, 3rd International Conference on Heat Transfer, Fluid Mechanics, and Thermodynamics, June 22-24, Cape Town, South Africa. accepted, 2004, Pise, A.T., Kant, K., and Devotta, S.


91. Heat Transfer Intensification in a Regenerator Using a Moving Port System, Submitted to HEFAT 2004, 3rd Int. Conf. on Heat Transfer, Fluid Mechanics and
Thermodynamics to be held in Cape Town, South Africa from 21-24 June accepted, D.S. Murthy, S. Kumar, K.Kant and D.P. Rao.


101. Beam hardening in X-ray CT, Proceedings of the National Seminar on Nondestructive Testing, held in Thiruvananthapuram, 11-13 December, 2003, pp.183-
188, Mishra, K.K., Quraishi, A.M., Mishra, S., Kumar, A., Srivastava, A., Muralidhar, K. and Munshi, P.


107. Effect of orientation of a square cylinder on wake properties at low Reynolds number, Effect of orientation of a square cylinder on wake properties at low Reynolds number, FMFP Conference Surathkal, 11th to 13th December, 2003, Dutta, S., Panigrahi, P. K. and Muralidhar, K.


119. Robust estimation of aerospace propulsion parameters using optimization techniques based on evolutionary algorithms. 54th International Astronautical Congress of the International Astronautical Federation, the International Academy of Astronautics, and the International Institute of Space Law, Bremen, Germany, 2003, Meena, B. R., Gupta, H., Bandyopadhyay, P., Deb, K. and Adimurthy, V.

Optimization EMO-03 Conference, 8-11 April, Faro, Portugal. 535-549. Also Lecture Notes in Computer Science LNCS 2632, 2003, Deb, K., Zope, P. and Jain, A.


DEPARTMENT OF PHYSICS


7. Further evidence of electron-electron interaction in Ni$_{0.5}$Zr$_{0.51-x}$Al$_{x}$ amorphous alloys, J. Magn. Mater., 263, 26, 2003, A.K. Majumdar.


81. Enhancement of ferromagnetism and metallicity in Ru-doped layered manganite system La$_{1.2}$Ca$_{1.8}$Mn$_{2-x}$Ru$_x$O$_7$ x = 0, 0.1, 0.5, 1.0, Journal of Applied Physics, 93, 8331, 2003, N. Sudhakar, K.P. Rajeev and A.K. Nigam.


89. Internal Electric Field and Contact Potential in Polymer Light Emitting diode structure studied by Electroabsorption Spectroscopy, Proceedings Twelfth International Workshop on The Physics of Semiconductor Devices, Indian Institute


Conferences Attended Outside IIT Kanpur

CENTRE FOR LASER TECHNOLOGY

DEPARTMENT OF AEROSPACE ENGINEERING


3. 17th Canadian Congress of Applied Mechanics, CANCAM-03, The Univ. of Calgary, Alberta, Canada presented a contributed paper, June 1-6, 2003, Ghosh Kunal,

4. SEM Conference Charlotte, Baorth Carolina, USA, presented two contributed papers, June 2-4, 2003, Iyengar N.G.R.

5. IMPLAST 2003, 8th International Symposium on Plasticity and Impact, Mechanics, Vigyan Bhawan, presented an invited Paper and also Chaired a session, March 16-19, 2003, Iyengar N.G.R.


11. 6th Annual CFD Symposium of CFD Division of the Aeronautical Society of India, Bangalore, India, August, 11-13, 2003, S. Mittal.


**DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO-ENGINEERING**


2. Attended the symposium on “Molecules, Machines and Networks” organized by the National Centre for Biological Sciences (NCBS), Bangalore from Jan 2004 5th to 9th, R. Sankararamakrishnan.


5. CSIR Expert committee meeting scheduled on 14th & 15th May for interviewing SRFs/RAAs invited by Rajesh Luthra, Head, H.R.D. Group, Council of Scientific & Industrial Research, CSIR Complex, Library Avenue, Pusa, New Delhi 110 012, B. Prakash.

DEPARTMENT OF CHEMICAL ENGINEERING


10. Self-Organized patterning of soft materials, National Seminar on Science and Technology of Nanomaterials, Central Glass and Ceramic Research Institute, Kolkata, 2003, A. Sharma.


15. Adhesion and Debonding of elastic films: Patterns, forces and metastability, India-Japan Workshop on Surfaces and Interfaces, Saha Institute, Kolkata, 2003, A. Sharma.


DEPARTMENT OF CHEMISTRY
1. Delivered an invited lecture at the meeting 'Physics at the interface of Chemistry and Biology', held at S N Bose Centre, Kolkata, on December 08, 2003, A. Chandra.

DEPARTMENT OF CIVIL ENGINEERING
1. The 2003 American Society of Mechanical Engineers Pressure Vessels and Piping Conference, Attended, Cleveland, Ohio, USA, July 2003, Chakrabarti, S.K

2. The 19th International Conference on Solid Waste Technology and Management, Philadelphia, U.S.A., Session Chairman and paper presentation by Chandra, S.


4. First Indian International Conference on Artificial Intelligence: IICAI03, December 18-20, 2003, Hyderabad, India, Presented Two Contributed Papers, Jain, A.

5. One Day Workshop on Bridge Scour, River Training, and Protection Works (WOBRSIT-PROW-03), Organized by IIT Roorkee, October 11, 2003, New Delhi, India, Jain, A.

7. Workshop on Seismic Risk Management for Countries of the Asia Pacific Region, Bangkok, December 2003, World Seismic Safety Initiative, Jain, S.K.


DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
1. High Performance Computing in Science and Engg, Moscow, Russia, June 2003, Contributed Paper and Session Chair, S.K Aggarwal.


15. Asian’03, Bombay, Dec 2003, Attended, Anil Seth.


17. TECS Week, TRDDC Pune, Jan 2004, Attended, Anil Seth.

**DEPARTMENT OF ELECTRICAL ENGINEERING**


9. International Conference on Intelligent Sensors and Information Processing, ICISIP-04, Chennai, 4-7 January, Contributed two papers and Chaired one session, Laxmidhar Behera.


17. Dissemination workshop on GHG mitigation, May 9, 2003, New Delhi, Invited in Discussion, S.N. Singh.


31. The International Conference on Systemics, Cybernetics and Informatics (ICSCI-2004), Pentagram Research Center Pvt. Ltd., Hyderabad, India, February 12-15,

32. Workshop on Distribution System Upgrades and Modernization, Center for Management Education, Administrative Staff College of India (ASCI), Hyderabad, India, February 16-20, 2004, Attended, R.P. Gupta.


DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES


27. Plenary talk Delivered and Chaired a Technical Session at the 24th All India ISSA Conference, Organised by the Department of Sociology, H.S.Gour University, Sagar, January 23-25, 2004, B. K. Pattnaik.

28. Language and Democracy in India: A Linguistics Point of View, All India Social Science Congress, IIT Kharagpur, December 3-7, 2003, B. N. Patnaik.


30. Alienation as Comedy in Upamanyu Chaterjee’s English, August, Sixth International Conference: Rethinking Modernity, the Department of English, University of Rajasthan, Jaipur in collaboration with the Forum on Contemporary Theory, M. S. University, Baroda and Louisiana State University, Shreveport, U. S. A., 14-17 December, 2003, T. Ravichandran.


32. Project Planning and Project appraisal vis-a'-vis Our Approaches Towards Sustainable Development, 35th Annual Conference of the Orissa Economic Association, held at SVM College, Jagatsingpur, Orissa, February 15-16, 2003, Rath B.


34. Post-Evaluation of Environmental Abatement Measures of Kanpur Nagar Nigam (KNN) with Respect to Solid Waste Management, National Conference on Environmental Pollution Prevention and Control held at University Polytechnic, AMU, Aligarh, UP, June 5, 2003, Rath B. & Agarwal S.


DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING

1. APORS 2003: International Conference held on December 8-11, 2003, New Delhi, India, Swami Sanjeev.


DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING


8. 8th International Conference and Exhibition of European Ceramic Society held in Istanbul, Turkey, June 29, 2003, Bikramjit Basu.


18. 3rd International Conference on Science, Technology, and Application of Sintering (SINTERING 2003), State College, PA, USA, September, 14-17, 2003.


DEPARTMENT OF MATHEMATICS

1. Synthesizing the Classical and Inverse Methods in Linear Calibration, at the 54th session of International Statistical Institute at Berlin, Germany in August 2003, Shalabh.


5. 11th Ramanujan Symposium on Recent trends in operator theory and Banach Algebras March 3-5, 2004. Key note address and also invited lecture on ‘Vector-Valued Multipliers and Operator Valued measures’ organised at The Ramanujan Institute of Mathematics, University of Madras, Tewari, U.B.

7. Delivered an invited lecture at the International Conference on Differential Equations, Dynamical systems and applications from 19.5.2003 to 24.5.2003 Atlanta, U.S.A. Title of talk: Resonance problems for Hardy-Sobolev operator with indefinite weights, Raghavendra, V.

8. An invitation to Monotonic Analysis, Asia-Pacific Conference on Operations Research-2003 (APORS-2003), New Delhi, 8th to 11th December, Dutta, J.


11. Analysis of Hybrid Censored Competing Risks Data, International Conference on Recent Developments in Theoretical and Applied Statistics, held at the University of Tamsui, Taiwan, during December 15-16, 2003, (Invited Speaker), Kundu, D., Kannan, N., Balakrishnan, N.


17. Wavelets in Sparse Matrix Computation, in Orissa Mathematical Society Annual Conference, Feb 7-11, Bhubaneswar, 2004, Rathish Kumar, B.V.


DEPARTMENT OF MECHANICAL ENGINEERING


3. Prediction and Analysis of the Bubble Formation in Film Boiling, INVITED TALK, FLUENT CFD Conference for India and South East Asia, Pune, India, November 18-20, 2003, G.Biswas.


14. 54th International Astronautical Congress of the International Astronautical Federation, the International Academy of Astronautics, and the International Institute of Space Law, 29 September-03 October 2003, Bremen, Germany. Presented a paper, K. Deb.
15. 17 August, 2003: Invited to present a tutorial during 'Multi-disciplinary International Scheduling Conference (MISTA)' under the theme 'Tutorials in Modern Optimization Methods' at the University of Nottingham, UK, K. Deb.


18. 9 December, 2003: Invited to present a keynote lecture entitled 'Challenges to Multi-Objective Evolutionary Optimization' during Congress on Evolutionary Computation (CEC-2003) held in Canberra, Australia, K. Deb.


23. SAE World Congress 2004, Cobo Center, Detroit, March 8-12th, 2004, Presented one contributed paper, Avinash Kumar Agarwal.

   a) Presented a paper on Tool Wear Prediction in Turning co-authored by P. Srinivas in the conference.
   b) Chaired two sessions on Machining during the conference.


29. NDE 2003, Thiruvananthapuram, 11-13, Dec 2003, Dr.N.N.Kishore.
   a) Chaired a session
   b) Presented a paper on, Ray bending consideration of ultrasonic Tomographic Reconstruction of Defects.

DEPARTMENT OF PHYSICS
1. Invited talk at the International Conference on Unconventional Applications of Statistical Physics, SINP, Kolkata, 2003, D. Chowdhury.


5. IIT Roorkee, April 6-8, 2003, S.C. Agarwal.


16. 6th Meeting of Asian Collaboration for Accelerators, Tata Institute of Fundamental Research, December 15-17, 2003, Invited Speaker & Session Chair, S. Raychaudhuri.


18. 17th SERC School in High Energy Physics, University of Rajasthan, Jaipur, February 18-28, 2004 Guest Faculty, S. Raychaudhuri.

19. Advances in Computational & Experimental Engineering & Sciences (ICCES’03), 24-29 July 2003, Corfu, Greece.

Seminars Presented

CENTRE FOR LASER TECHNOLOGY


11. Imaging of Convection in Crystal Growth from an Aqueous Solution using Interferometry, Schlieren and Shadowgraph, presented at Department of Mechanical
Engineering, University of Minnesota, Minneapolis, 9th December, 2003, K. Muralidhar.


DEPARTMENT OF AEROSPACE ENGINEERING


7. Study of Flow in a Supersonic Mixed-Compression Inlet, 6th annual CFD Symposium of CFD Division of the Aeronautical Society of India, Bangalore, India, August 11-13, 2003, Sanjay Mittal.


DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO-ENGINEERING


3. From Genes to Genome: Invited talk delivered in the Short term Course in Computational Neuroscience, Indian Institute of Technology, Kanpur, 7 to 18th July, 2003, S. Ganesh.


11. Invited Talk on Structural Biology and Drug Design In the National Symposium on Expanding Horizons, New Delhi, organized by Delhi University in Oct. 2003, B. Prakash.
DEPARTMENT OF CHEMICAL ENGINEERING


5. Inherently Safer Design, a set of lectures, Department of Chemical Engineering, Helsinki University of Technology, Helsinki, Finland, March 22-26, 2004, J.P. Gupta.


9. Patterning of soft materials, National Chemical Laboratory, Pune, A. Sharma.

10. Instability of thin elastic films in adhesion, Lehigh University, A. Sharma.
11. Stability of single layer and two-layer viscoelastic plane Couette flow past a definable solid layer, Seminar given at the National Chemical Laboratory, Pune, February 2004, V. Shankar.

DEPARTMENT OF CHEMISTRY
1. Invited Lecture series (4 lectures) on February 14 & 15, 2003 at Department of Chemistry, Gulbarga University, Gulbarga, F. A. Khan.


5. Invited lecture at Boehringer Ingelha, Germany, June 2003, H. Ila.


7. IUPAC International Conference on Biodiversity and Natural Products: Chemistry and Medical Applications, University of Delhi, January 2004, H. Ila.


11. Invited lecture at UGC refresher course held at Bharadidasan University, Trichy, Tamil Nadu, S. Sundar Manoharan.


15. Invited lecture on white light LED at the Indo-Italian workshop at IIT Kanpur, S. Sundar Manoharan.


7. Durability based design of concrete structures National seminar on Use of Concrete in construction of infrastructural facilities for the development of nation, Concrete Day celebrations organized by the Indian Concrete Institute, UP Allahabad Chapter, September 7th, 2003, Misra Sudhir.


DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING


8. Lambda calculus and games semantics, Calcutta University, October 2003, Anil Seth.


DEPARTMENT OF ELECTRICAL ENGINEERING


8. Presented a ten and a half hours lecture series titled Power Electronics Applications in Power Systems during June 23-26, 2003, as a part of the prestigious Grainger Lecture Series at the University of Illinois at Urbana-Champaign in cooperation with the Power Systems Engineering Research Center, University of Wisconsin at Madison. The lecture slides and audio can be obtained from the web site, Arindam Ghosh.


DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES


3. Social Dynamics of Indian Society: Felicitation Seminar In Honour of Professor J.S. Gandhi, Centre for the Study of Social Systems, School of Social Sciences, Jawaharlal Nehru University, New Delhi, April 2-3, 2003, Munmun Jha.


16. Leadership Crises in our Country and the Challenges before the Youth, NSS Camp held at Narshingpur College, Utkal University, December 24, 2003.


19. “Globalisation and its impact on the consumer market”, Kanpur, March 15, 2004

20. EIA Aspects of various Development Projects in India, four lectures delivered in the Refresher’s Course on Environmental Sciences, BHU, Varanasi, March 18-20, 2004.

DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING


3. Evaluation, Rating and Certification of Online Documents, IIIT Hyderabad, Faculty Workshop SAP, Bangalore Feb. 23-27, SAP Lab India, V. Bansal and Mayank.


10. Invited lecture at National University of Singapore, Information systems Dept, 26/12/03 on New research directions for KM in the social sector-Knowledge exchange experience at Digital Mandi, Jayanta Chatterjee.


12. Invited talk at Dept of Biotechnology on Business Incubation at biotechnology Parks. – 18th July, 03, Jayanta Chatterjee.


**DEPARTMENT OF MATHEMATICS**


2. Completeness of small translates on spaces at ISI Calcutta, Ray, S.K.

3. A series of 8 lectures on Fourier Analysis on at ISI Bangalore between February 2004 to April 2004, Tewari, U.B.

**DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING**

1. Recent discovery of the original erection site of and original image atop the Delhi iron pillar, Indian Institute of Advanced Studies, Shimla, April 17, 2003, R. Balasubramaniam.


5. Mysteries of the Delhi iron pillar unraveled, General Motors Research and Development Center, Warren, MI, USA, October 9, 2003, R. Balasubramaniam.


11. Toughness tailoring of zirconia ceramics (Invited), School of Materials Science, University of Leeds, May 2003, Bikramjit Basu.

12. Phosphor Characterization and Radiometry, Colorimetry, and Photometry, Short term course as a part of Samtel Research Center, April 2003, IIT Kanpur, Vasuda Bhatia.


21. TLP and SLP sintering of ferrous and non-ferrous systems (invited), IFAM, Bremen, Germany, July 2003, Anish Upadhyaya.


23. Microwave Processing of materials, Solid State Physics Laboratory (SSPL), New Delhi, October 2003, Anish Upadhyaya.


27. Supersolidus sintered bronze and stainless steels, Advanced Research Center for Powder Metallurgy and Advanced Materials (ARCI), Hyderabad, December 2003, Anish Upadhyaya.

28. Sintering of particulate MMCs, Corporate R&D, Bharat heavy electrical limited (BHEL), Hyderabad, December 2003, Anish Upadhyaya.
DEPARTMENT OF MECHANICAL ENGINEERING

1. Functioning, Style and Focus of some Design Institution of World - A Perception, July 2003, ISC Bangalore, Prashant Kumar.


8. Imaging of Convection in Crystal Growth from an Aqueous Solution using Interferometry, Schlieren and Shadowgraph, presented at Department of Mechanical Engineering, University of Minnesota, Minneapolis, 9th December, 2003, K.Muralidhar.


   b. Face to Face - A dialogue with young Technocrats during the Annual program DIKSHA at MANIT Bhopal, March 12, 2004.
   e. Advances in Advanced Machining Processes, National Conference on Advances in Manufacturing Systems held at Jadavpur University, Kolkata during 2003, pp.23-41.


16. Development of Micro-sensors based on capacitance probes and fiber optical probes for internal combustion engine applications, Indian Oil Corporation (R&D Center), Faridabad, 9th May 2003, Avinash Kumar Agarwal.


DEPARTMENT OF PHYSICS


23. Brane World Phenomenology (3 lectures), Theoretical Physics Seminar, Tata Institute of Fundamental Research, March 9-12, 2004, S. Raychaudhuri.


Other Activities

(A) TECHNOLOGY DEVELOPED

DEPARTMENT OF AEROSPACE ENGINEERING
1. Wind Turbine Battery Charger Almost Ready for Transfer, Ghosh Kunal.

2. Technology to produce Nano-material by flame synthesis. Technology to produce Nano-material by flame synthesis (We are the first to produce nanomaterials by flame synthesis in India), D. P. Mishra.

DEPARTMENT OF CHEMICAL ENGINEERING
1. Higee distillation: Ready for transfer; Further development also needed, D.P. Rao.

2. Adsorptive separation of gas mixtures: Ready for transfer; Further development is also needed, D.P. Rao.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
1. AnglaBharti Technology Transferred to CDAC Pune, JNU, IIT Bombay, Utkal University, IIT Guwahati, CDAC Calcutta, TIET Patiala and CDAC Trivandrum, Ajai Jain.


DEPARTMENT OF ELECTRICAL ENGINEERING
1. Anaesthesia Monitor: This equipment has been developed by GC Ray and Gautam Das. It is a complete product and ready for transfer.

2. Developed the Polymer Light Emitting Diode (PLED) technology of ITO/PEDOT/MEHPPV/Ca/Al and achieved 912 Cd/m² for the devices, which were test operated for more than 44 hours, first ever done in India. Further development for commercialization is required, R.S. Anand.

3. PLED devices have been made on thin plastic sheet, first ever in India. Further development for commercialization is required, R.S. Anand.

- Automation software to enable remote monitoring, alarm generation and remote control
- Remote terminal unit (RTU)
- Remotely operable load break switches suitable both for HV and LV side of distribution transformer
- Client-Server data communication link over dialup network
- System instrumentation
- Automation protocols
- Distribution automation simulator (a scaled down model of a real-life automated distribution network) to provide a test bed for a comprehensive testing of the developed technology, components and software.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING
1. Development of simulator for a Plasma Display Panel (PDP) cell, Samtel Center, Deepak Gupta

DEPARTMENT OF MECHANICAL ENGINEERING
1. Effect of Surfactant on Heat and Mass Transfer Enhancement, Dr. Keshav Kant.
2. Simulated Moving Bed Heat Regenerator, Dr. Keshav Kant.

DEPARTMENT OF PHYSICS
1. Room Temperature STM, Anjan K. Gupta.

(B) SOFTWARE DEVELOPED

DEPARTMENT OF AEROSPACE ENGINEERING
2. Six degree of model to evaluate dynamic stability boundaries of an wrap around rocket at supersonic speed, Delivered, A. K. Ghosh.
DEPARTMENT OF CHEMICAL ENGINEERING
1. JAVA implementation of Adaptive Centroid Algorithm for Gene Expression Profiling. JB Singh (B Tech student) and S. Garg.

DEPARTMENT OF ELECTRICAL ENGINEERING


7. Developed FDTD code for characterizing inhomogeneous dielectric resonator and also, code developed for generalized filter theory, Animesh Biswas.


DEPARTMENT OF MECHANICAL ENGINEERING
1. Closed from analysis of hybrid damping in Smart Structures: Software for simple boundary Conditions have been developed - currently the extension in going on for free-free structures, Dr. Bishakh Bhattacharya.

2. High precision finite element analysis of laminated composite plates: Software for composite plates with embedded sensors and actuators have been developed - closed loop controller design is in progress, Dr. Bishakh Bhattacharya.

3. Hybrid Controls of Flexible Arm Manipulator Software developed for single link manipulator with linearised model; further research is going on to take into account multiple link and nonlinear hierarchic control scheme, Dr. Bishakh Bhattacharya.

4. Modeling of an Annular Combustor, Dr. Bishakh Bhattacharya. (being used by GTRE, Bangalore)
Industry Visited

CENTRE FOR LASER TECHNOLOGY

DEPARTMENT OF AEROSPACE ENGINEERING

2. Coordinated HAL Training Programme for HAL Management Trainees (Technical) from August4- Nov.28,2203 and also delivered Lectures organized at IIT Kanpur, N.G.R. Iyengar. NAL, Bangalore, Instrumentation of HANSA Aircraft, August 2003, A K Ghosh.


8. HEMRL, IAT, Pune and RRL Bhubaneswar, To discuss about collaborating research work in the field of combustion & allied fields, To discuss about collaborating research work in the field of combustion & allied fields, D. P. Mishra.

DEPARTMENT OF CHEMICAL ENGINEERING
1. IIT Powai, Mumbai. DST PAC meeting. Research Project awarded for Rs. 16,36,800/=, S. Garg.

2. KVIC annual review meeting, Mumbai, January 16-17, 2004. (Ongoing funded research project), S. Garg.


5. GAIL, PATA, June 2003, D. Kunzru.


7. National Chemical Laboratory, Pune; Visited for one week during February 2004 and gave a series of lectures on 'Introduction to polymer physics', V. Shankar.

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

1. Invited by CEO for a technical, discussion, ESSPL, Bhubaneswar, Dec 2003, R.K Ghosh.


3. IIT Delhi, Oct 2003, Dheeraj Sanghi.


5. IISc Bangalore, Sep 2003, Dheeraj Sanghi.


7. IIIT Allahabad, Sep 2003, Dheeraj Sanghi.


**DEPARTMENT OF ELECTRICAL ENGINEERING**

1. CAT, Indore, for DGFS Student and exploring possible avenues for collaboration, December, 2003, P. Sensarma.

2. Visited Asian Institute of Thailand during 20-22 August 2003 and 1-19 December 2003 to deliver invited lectures in the short term course on ‘Demand Side
management and Distribution Automation’ and ‘Power System Operation Automation & Management’, respectively. Also visited this institute during 24-26 September 2003 and 14-16 January 2004 to attend a project review meeting and attend an International conference, respectively, S.C. Srivastava.


7. Visited BHEL, Hyderabad in Nov. 2003 as the Chairman, Preliminary Design Review and Critical Design Review Committees (May 2001 and Nov. 2003) for review of ADA, Bangalore sponsored project to BHEL, Hyderabad. The project was on The development of compact 40 kVA, 400 Hz generator for Light Combat Aircraft, S.P. Das.

8. ADE, Bangalore in Jan. 2004 to have general discussion, S.P. Das.


11. Visited Department of Electrical and Computer Engineering, Clemson University, Clemson, South Carolina, USA. To carry out research activities under the ongoing Indo-US collaborative project sponsored by DST and NSF [DST/EE/20000160]. 07-12 October 2003, S. Kar.

12. Visited to SAMTEL factory in Ghaziabad in connection to CRT Tubes, Nandini Gupta.


18. Visited, Faculty of Engineering, University of Malaysia, Sarawak, December 15, 2003-December 26, 2003, Dr. S. Qureshi.


DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING


3. Evaluation, Rating and Certification of Online Documents, IIIT Hyderabad, Faculty Workshop SAP, Bangalore Feb. 23-27, SAP Lab India, V. Bansal and Mayank.

4. Visited BILT, Gurgaon and Siemens Pvt. Ltd. to study their ERP implementations, V. Bansal.


11. Invited lecture at National University of Singapore, Information systems Dept, 26/12/03 on New research directions for KM in the social sector-Knowledge exchange experience at Digital Mandi, Jayanta Chatterjee.


13. Invited talk at Dept of Biotechnology on Business Incubation at biotechnology Parks. – 18th July, 03, Jayanta Chatterjee.

14. Demonstrated the software and transaction technologies developed for Medialab Asia KL hub at www.digitalmandi.net (i) ‘Web and IVR/CTI based agro-commodity trading with integrated back end system’ (ii) ’Platform independent web to mobile SMS based bi-directional knowledge exchange using adaptable business rules’ (iii) User co-creation of electronic content for rural development applications. 5(c)-Industries and organizations visited on professional engagement: Larsen & Tubro, Indian Airlines, NAFED, CII, Hughes ECL, Siemens Ltd, Lego-serious play APAC (Singapore), Jayanta Chatterjee.

15. Institute Visited: National University of Singapore, Hong Kong Poly University, Nanyang Technical University, Jamia Millia Islamia University, UP state Institute of Rural development, Jayanta Chatterjee.

16. Appointed Adjunct Professor at the Industrial Systems Engineering Dept. of Hong Kong, Poly University and on the International Research Advisory body of the KM laboratory at National University of Singapore and International Advisory body of Institute of Information and knowledge Management, Straits Knowledge, Singapore, Jayanta Chatterjee.

17. Appointed Lead researcher of The School of Organizational learning and transformation, at the Global Institute of Flexible Systems Management, Jayanta Chatterjee.

19. Three short term (6days) courses organized for 110n L&T Senior Managers on ‘Competitive advantage creation through Technology and Innovation’ as part of the Technology Leadership Program, Jayanta Chatterjee.

20. One day workshop for Block development and Mandi Parishad officers of UP on Information design for electronic trading and NGT for Action Planning, Jayanta Chatterjee.


DEPARTMENT OF MATHEMATICS
1. Visited the Institute of Statistics, Munich University, Germany in May 2003, in connection with his research activities, Shalabh.


3. Visited Katholieke University Leuven, Belgium in December 2003, for collaborative research, Misra, N.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING


5. Indian Institute of Science, Metallurgy Department, Bangalore, November 10, 2003, R. Balasubramaniam.


DEPARTMENT OF MECHANICAL ENGINEERING

1. Visited on August 2003 to December 2003, Adjunct Professor, Mewbourne School of Petroleum and Geological Engineering and Department of Aerospace and Mechanical Engineering, University of Oklahoma, USA, K. Muralidhar.


3. AVL Research and Development Center, Graz, Austria, 15th May, 2003, Avinash Kumar Agarwal.


DEPARTMENT OF PHYSICS
1. Samtel Technology Lab, Ghaziabad, S. Kumar.

(D) PATENTS

DEPARTMENT OF AEROSPACE ENGINEERING
1. Applied for Tandoor Chulla, D. P. Mishra

DEPARTMENT OF CHEMICAL ENGINEERING


DEPARTMENT OF CHEMISTRY


DEPARTMENT OF ELECTRICAL ENGINEERING


DEPARTMENT OF MECHANICAL ENGINEERING
1. Rubber pressure molding, Accepted, Prashant Kumar with K.K. Kar

(E) AWARDS AND HONOURS

DEPARTMENT OF AEROSPACE ENGINEERING
1. Fellow of Indian National Academy Engineering, C. Venkatesan.


4. Aerospace Divisional Award from Institution of Engineering, Chandra Shekhar Upadhyay

DEPARTMENT OF CHEMICAL ENGINEERING
1. Fellow, Indian National Science Academy (elected in 2003), A. Sharma.
2. Fellow, Indian National Academy of Engineering (elected in 2003), A. Sharma.
3. Herdillia Award of the Indian Institute of Chemical Engineers for excellence in basic research (2003), A. Sharma.
4. Shanti Swarup Bhatnagar Prize in Engineering Sciences (received in July 2003), A. Sharma.

DEPARTMENT OF CHEMISTRY
2. Astrazeneca Technology Innovation Award, H. Ila.
3. Acharya J. C. Ghosh Memorial Lecture and Medal by Indian Chemical Society, H. Ila.
4. Global Indus Techno-innovators award for research contributions in Nanomaterials and devices, instituted by Indian Business club at Massachusetts Institute of Technology, Boston USA, November 2003, S. Sundar Manoharan.
5. JWT Jones Fellowship, Royal Society of Chemistry (2004), Sandeep Verma.
6. CRSI Medal (Bronze) 2003, Prof. Vinod Kumar Singh.
7. Chairperson “Women Scientist Scheme”, (Chemical Science), Department of Science and Technology, New Delhi, H. Ila.
9. Member of CSIR Committee for Chemical Science, H. Ila.

DEPARTMENT OF CIVIL ENGINEERING
1. G. jointly award IGS – Shri R.N. Prasad Biennial prize for the best paper on Slope Stability and Land Slides for their paper published in Indian Geotechnical journal in Dec. 2003 at the IGS Annual Conference held in Roorkee, Basudhar, P.K. and Bhattacharyya.
2. Nominated as Associate Editor of ASCE Journal of Structural Engineering effective from June, 2004, Gupta, V.K.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING


3. Invited to be an Editor of the Narosha Publisher’s International Series on ‘Power & Energy’, S.C. Srivastava.


6. Awarded the Fulbright Scholarship by the United States Department of State for visiting the University of Illinois at Urbana-Champaign between May-July, 2003, Arindam Ghosh.

7. Won Indian National Academy Young Engineers Award 2003. Awarded by Indian National Academy, S.P. Das.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES


4. Received Distinguished Teacher Award, IIT Kanpur for the year 2003, September 5, 2003, Lila Krishnan.

DEPARTMENT OF MATHEMATICS
1. C.L. Chandana Mathematics Awards 2003 by Canadian World Mathematics Foundation, Misra, N.

2. Elected as a Fellow of the Royal Statistical Society, London in the year 2003, Kundu, D.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

2. Editorial Board Member, Indian Journal of History of Science, Indian National Science Academy, New Delhi, India, R. Balasubramaniam.


4. BOYSCAST (Better Opportunities for Young Scientists in Chosen Areas of Science and Technology) fellow, Department of Science and Technology, Government of India, 2002-2003, Bikramjit Basu.


8 ‘Best Oral Presentation Award’ for the Materials Science Category at the conference from amongst 70 oral presentations, Gouthama.

9. Elected as a member of the Continuous casting operating committee (CCOC), AIST, USA, Dipak Mazumdar.
10. Elected as an Editor of The Transactions of The Indian Institute of Metals, Dipak Mazumdar.


15. Invited to serve as a member of the Editorial Advisory Board of the ‘Transactions of the Indian Ceramic Society’ for two years, May 2003, Anish Upadhaya.

16. Continue as member governing council of Powder Metallurgy Associate of India (PMAI), Anish Upadhaya.

**DEPARTMENT OF MECHANICAL ENGINEERING**


5. Humboldt Fellowship, Germany, P.K.Panigrahi.


17. Guest Editor for a Special Issue on Alternative Fuels, for the Journal of Automobile Engineering, Published by Institution of Mechanical Engineers, London, UK, Scheduled for First Quarter of 2005, Avinash Kumar Agarwal.


19. Member of DST Expert group on Alternative Fuels and Retrofitting constituted by Government of India, Avinash Kumar Agarwal.


21. Reviewer for ASME.ICED Spring and Fall Conferences 2003, Avinash Kumar Agarwal.
DEPARTMENT OF PHYSICS
1. Elected FELLOW of the Indian Academy of Sciences, Bangalore, D. Chowdhury.


(E) CONTINUING EDUCATION ACTIVITIES

DEPARTMENT OF AEROSPACE ENGINEERING
1. Delivered Lectures in the Helicopter Technology Programme from Jan.4- April 28,2004 for HAL and Armed Forces Engineers organized at IIT Kanpur, N.G.R. Iyengar.


3. Organised the one-semester- Certificate Program on Helicopter Technology for sponsored candidates from Army, Air force and HAL. Second batch of participants successfully completed the program in April 2003, C. Venkatesan.


7. Taught part of course on "Aircraft Structural Analysis" to the Graduate Engineering Trainees from HAL. Also taught part of course on Vibration Analysis for the "Helicopter Technology" course held from January 2004 to May 2004, C. S. Upadhyay.

DEPARTMENT OF CHEMICAL ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING


5. NPEEE Supported One-Semester Certificate Programme in Earthquake Resistant Design (July – December 2003), IIT Kanpur, Jain, S.K.

6. Seismic Design of Reinforced Concrete Buildings (January 9 – 10, 2004, 140 participants, for Govt of Delhi; 2 days), Delhi, Jain, S.K.

7. Workshop on IS:13920, July 6, 2003 (one day); about 70 participants, Jain, S.K.

8. Workshop on IS:1893, Ahmedabad, Jain, S.K.


13. Curriculum Workshop for Architectural Programme in Colleges of Gujarat (October 21, 2003), Ahmedabad, Jain, S.K.

14. ‘Concrete structures and durability’, Invited lectures at the one-day workshop at Talcher Thermal Power Station, National Thermal Power Corporation, Talcher, Orrisa, February 19th, 2004, Misra Sudhir.
Annual Report 2003-04


16. Short Course on Introduction to Earthquake Engineering for engineering college and polytechnic teachers of State of Gujarat, Ahmedabad in July 2003, (24 participants for GSDMA), I.I.T.Kanpur in August 2003 (19 participants under NPEEE), Murty, C.V.R.

17. Taught in the AICTE_ISTE short term course on Design and Disaster Mitigation and Management of Structures conducted for teachers of engineering colleges and polytechnics by the Gandhi Institute of Technology and Management at Visakhapatnam on 15-16 April 2004, Murty, C.V.R.

18. Sensitisation of Architects of Indian Institute of Architects 06 January 2004 at New Delhi, 14 April 2004 at Jammu, Murty, C.V.R.

19. Sensitisation of Engineers of Government of NCT Delhi, 09 January 2004 at New Delhi, Murty, C.V.R.


22. 28 July 2003 at New Delhi, 16 September 2003 at New Delhi, Murty, C.V.R.

23. Conducted Summer Camp 2003, for UG CE students from across the country, Industry sponsored, Lohani B.

24. Preparation for the Summer Camp 2004 including the followings; contacting various colleges for participation, contacting eminent persons in CE for guest speakers contacting different government and private agencies for sponsorship, Mohapatra, P.K.

DEPARTMENT OF ELECTRICAL ENGINEERING


DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES


7. Lecture on Zoning Issues in Environmental Problems for the participants of UGC Refresher Course on Urban and Rural Development, Gokhale Institute of Politics and Economics, Pune, August 29, 2003, P. M. Prasad.

8. Participated in the Course Criminology and Forensic Science at National Institute of Criminology and Forensic Science, Delhi, During, September 2-22, 2003, P. M. Prasad.

9. Organized the Linguistics Session at the 27th All India Social Science Congress, at IIT Kharagpur, December 3-7, 2003, B. N. Patnaik.

DEPARTMENT OF MECHANICAL ENGINEERING


2. Short term course on CAD of Thermal Systems, Period: 14th July to 19th July 2003, Number of participants: 45, P. K. Panigrahi.

3. Organized a five-day course (jointly with Dr. N.V. Reddy) Finite Element Applications in Metal Forming: Part 1, for TISCO Engineers, at IIT Kanpur, July 14-18, 2003, P. M. Dixit.

4. Organized a five day course (jointly with Dr. N.V. Reddy) Finite Element Applications in Metal Forming: Part 2, for TISCO Engineers, at TISCO Jamshedpur, September 29-October 3, 2003, P. M. Dixit.

5. Organized a five day course (jointly with Dr. N.V. Reddy) Finite Element Applications in Metal Forming: Part 3, for TISCO Engineers, at IIT Kanpur, December 08-12, 2003, P. M. Dixit.

6. A one-week short course sponsored by Quality Improvement Program for engineering college teachers and industry entitled Renewable Energies and Alternative Fuels 15th to 5th December 2003, attended by 30 faculty members from engineering colleges, Dr. Avinash Kumar Agarwal.

7. Summer School at IACS, Kolkata, A. K. Mallik

8. Winter School at ISI, Kolkata, A. K. Mallik
DEPARTMENT OF PHYSICS
1. Delivered lectures on Computational Statistical Physics for nine hours at the sERC on Statistical Physics, TIFR, Mumbai (2004), D. Chowdhury.


3. Developed and taught two new courses (i) Physics of Information Processing; (ii) Nonlinear and Quantum Optics, H. Wanare.


5. Closely involved in Restructuring of the Physics Syllabus of the CBSE, H. Wanare.

(F) PARTICIPATION IN HIGH LEVEL INDUSTRY ACADEMIA INDUSTRY INTERACTION PROGRAMME DURING SUMMER

DEPARTMENT OF AEROSPACE ENGINEERING

2. Invited to attend and present our efforts in initiating the Helicopter Technology program at IIT Kanpur at the one-day session organized by INAE at Delhi in April 2003, C. Venkatesan.

DEPARTMENT OF ELECTRICAL ENGINEERING


DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
1. Institute of Management, Patna, During Summer 2001, Sharan Raka, L.N. Mishra.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING
DEPARTMENT OF ELECTRICAL ENGINEERING

1. Commercialisation of the indigenously developed Distribution Automation components under Technology Development Mission on Power Distribution Automation at IIT Kanpur is an important aspect. The above objective can be easily achieved through the demonstration project at pilot level in the utility environment. To realize the above demonstration project, while IIT Kanpur will provide its expertise to develop and integrate the system, it will take help of other industries such as Indian Telephone Industries, Raebareli and Interra Software (India), Noida for executing specific tasks in the project. These may include providing necessary components and equipments along with its installation and commissioning on the site for the implementation of the Distribution Automation project. It may be noted that the INTERRA Software (India) Limited and Indian Telephone Industry, Raebareli are already involved and signed MOU with IIT Kanpur in the automation activities of distribution system, R.P. Gupta.

(G) ANY OTHER IMPORTANT ACTIVITY NOT SPECIFIED IN ABOVE COLUMNS

DEPARTMENT OF AEROSPACE ENGINEERING


DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO-ENGINEERING

1. Nominated as an expert member, Board of studies for the M.Sc. program in Biotechnology in CSJM University, Kanpur, S.Ganesh.


3. My student Mr. KNK Harekrishnen won the best poster prize on peptide models for mammalian selenoproteins, Gurunath.

4. Organized Bioinformatics and Computational Biology session as part of the International Conference on Mathematical Biology in Feb 2004, along with Balaji Prakash, R. Sankararamakrishnan.

5. Member of Board of studies of Bioinformatics, Chhatrapati Shahu Ji Maharaj University, Kanpur, R. Sankararamakrishnan.

7. Refresher course in Molecular & Developmental Genetics, Sponsor: Indian Academy of Sciences, Bangalore, Conducted at: Cytogenetics laboratory, Department of Zoology, Banaras Hindu University, Varanasi 221 005 Date: July 2-14, 2003, Instructor, K. Subramaniam.


9. Member of the Task Force meeting on HRD programs organized by Department of Biotechnology at New Delhi on 4th June 2003, P. Sinha.

10. Attended First Meeting of the Members of Society of Biotech Park, Lucknow held on 22nd Feb’2004 at the Biotech Park site Office, and Lucknow, P. Sinha.

11. Invited talk in seminar (Title of Talk- Growth & Potential of Biotechnology and Bioengineering Sciences) 24th April’04 at CMS-Auditorium, Lucknow, P. Sinha.


Research Grants Received at BSBE


DEPARTMENT OF CHEMICAL ENGINEERING
1. As AICTE expert for National Board of Accreditation to Sant Longowal Institute of Engineering & Technology Longowal, November 20th, 21st and 22nd, 2003, A. Khanna.
7. Member, Fist Committee for Engg. Sciences, Dept. of Science & Technology, New Delhi, D. Kunzru.

DEPARTMENT OF CHEMISTRY


3. ‘Excess protons, electrons and metal atoms in hydrogen bonded nanoclusters: Studies of structural, dynamical and electronic aspects
through ab initio molecular dynamics ‚, funded by DST (Nanoscience initiative), started in March 2004, , New Research Projects, A. Chandra.


7. Isolation and Characterization of microbial strains for the degradation of hydroxy and nitro toluenes, 2004-2006; DBT, Rs. 10.16 lakhs, Ramanathan Gurunath.

8. CSIR project: Design and Development of New Multicomponent Couple Reactions sanctioned by CSIR (sanction no. 01(1854)/03 EMR II), Dtd. 12th March 2003, H.Ila.

9. DST project: New Synthetic Strategies for Small Molecule Heterocycles and Related Natural Products via Palladium (0) and Radical Mediated C-C and C-Heteroatom Bond Formation” sanctioned by DST (SP/S1/GO-05/2001) , H.Ila.

10. Astrazeneca project: Regioselective Synthesis of Substituted and Fused Quinoxalines, sanctioned by AstraZeneca Research Foundation, Bangalore, Karnataka., H.Ila.

11. Magnetoresistive Studies in Half – Metallic Ferromagnets, Collaborative Indo-German Research Project funded by Department of Science and Technology, New Delhi and BMBF, Germany, S. Sundar Manoharan.


13. Consultancy project: Studies on Cathodo-luminescent materials for Display technology, With SAMTEL COLORS, Ghaziabad, Delhi, S. Sundar Manoharan.

15. Functional mimicry of copper oxidases: C-H bond activation by bioinspired nucleobase polymeric templates, SERC, Department of Science and Technology, 2003-2006, Verma S.


17. CSIR: Osteoporosis project in collaboration with NIO Goa (2003-2004); Rs 5 lakhs, Sponsored Project, Vinod K. Singh.

18. DST: Chemistry of Aziridines (2003-2006); Rs 20 lakhs, Sponsored Project, Vinod K. Singh.


20. Cyclopropanes as surrogates to molecules of potential interest, Application to selected natural products synthesis, 2004-2006; DST, Rs 20 lakhs, Sponsored Project, Veejendra K. Yadav.

DEPARTMENT OF CIVIL ENGINEERING

Research/Consultancy Projects

1. Visited the Department of Civil Engg., Univ. of Illinois at Urbana-Champaign, USA in July 2003, Chakrabarti, S.K.

2. Chakrabarti, S.K. completed the consultancy project, Vetling of Structural Design of 200 MLD Water Treatment Plant at Ganga Barrage (Kanpur) (sponsored by : Barrage Unit, U.P. Jal Nigam, Kanpur : Value : Rs. 3.0 lakh, Chakrabarti, S.K.

3. Worked as Vice-President, Indian Society of Earthquake Technology (ISET) in the first year of this term Gupta, V.K.

4. Worked as Editor, ISET Journal of Earthquake Technology for the consecutive sixth year Gupta, V.K.


7. Active faults along northwestern Himalayan foothill zone: Implications to the great Himalayan earthquakes. Amount Sanctioned Rs. 402,000/=, Duration: 3 years. Funding Agency: DST, New Delhi (under fast track Young Scientist Scheme, Malik, N. Javed.

8. Malik, N. Javed, Title: DSM generation using high altitude satellite photos for identification and mapping of active tectonic landforms related to paleo-earthquake in Kumaon Himalaya. Amount Sanctioned Rs. 15,00,000/-. Funding Agency:3 years. Funding Agency:MHRD, New Delhi, Malik, N. Javed.

9. Assessment of technology for low-cost housing schemes of Govt. of India, Wizmin management consultants, Kanpur, Misra Sudhir.


12. Misra Sudhir, Inspection of civil works at development sites, Uttar Pradesh State Industrial Development Council (UPSIDC), Misra Sudhir.

13. MOU with Geological Survey of India (GSI), Calcutta, Patra, N.R.

14. Continuing Member, Project Evaluation Committee on Earth and Environmental Sciences, CSIR, New Delhi, Raymahashay, B.C.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
1. Member programme committee CIT Dec 2003, R.K Ghosh.


Sponsored Projects

2. Eclipse Innovation Grant, IBM, $15,000, T.V Prabhakar.

3. Project Monitoring Toll, MHRD, 5.00 lacs, T.V Prabhakar.

4. Technologies for Monitoring Gigabit networksDept of IT, MCIT, New Delhi, Rs. 60 lakhs, Dheeraj Sanghi.

5. Enabling IPv6 on ERNET Dept of IT, MCIT, New Delhi, Rs. 10 lakhs, Dheeraj Sanghi.

DEPARTMENT OF ELECTRICAL ENGINEERING
1. Acquisition (in process) of a high-end rapid PCB prototyping facility with scope for PTH rendering and multi-layer board fabrication, P. Sensarma.


3. Involved in Distance Education programme for Chattisgarh Govt., Y.N. Singh.

4. DST-Fast Track: Theoretical and experimental investigation of an artificial treechannels in high voltage polymeric insulation, Nandani Gupta.

5. MHRD-R&D: Experimental investigation into the mechanism of electrical tracing in polymeric insulation, Nandani Gupta.


7. Served as a member of the Awards Committee of SPIE, the International Society of Photonics Engineering, A.K. Ghosh.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES


7. Lecture on Zoning Issues in Environmental Problems for the participants of UGC Refresher Course on Urban and Rural Development, Gokhale Institute of Politics and Economics, Pune, August 29, 2003, P. M. Prasad.

8. Participated in the Course Criminology and Forensic Science at National Institute of Criminology and Forensic Science, Delhi, During, September 2-22, 2003, P. M. Prasad.

9. Organized the Linguistics Session at the 27th All India Social Science Congress, at IIT Kharagpur December 3-7, 2003, B. N. Patnaik.

DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING

1. Reviewer of Marketing Strategy for the Proposal: Strategy for Marketing the Energy Efficient Cupola and Pollution Control System Among Small-Scale Foundries, by Tata Energy Research Institute (TERI), New Delhi, Swami, S.

2. Session Chairman in the Technical Session on E-Commerce and Information Technology in APORS-2003 International Conference, New Delhi, India, December, 2003, Swami, S.
3. Draft Presentation for IT Policy for UP Development Council, Government of Uttar Pradesh (co-authored with Prof. S. G. Dhande, Director, IIT Kanpur, and Mr. Sanjeev Shriya, President, TiEUP, Swami, S.


Consultancy Reports

2. Interim Draft Report on Analysing barriers and policy measures to wider adoption of clean and energy efficient technologies in the power sector (ARRPEEC-III) for AIT, Thailand, Anoop Singh.

3. Consultancy report to L&T India on Strategic Management of Technology and Knowledge across Business Groups and guidance for (a) Market entry strategy for Facility Command centers- Integrated control, automation, safety and security centers in large mixed use establishments (b) Reengineering the L&T EBG range for rural markets-River linking project. (c) Task force agenda for Technology mapping, Jayanta Chaterjee.


Cases Developed

Short Term Courses


DEPARTMENT OF MATHEMATICS
1. Invited to be Editorial Board Member of the Journal of Modern Applied Statistical Methods for the year 2003-2005, Kundu, D.

2. Invited to be the Editorial Board Member of the Journal Statistics and Its Applications, Kundu, D.


4. Organized ‘International Conference on Mathematical Biology’ Feb. 19-21’2004 at the I.I.T. Kanpur. It was participated by about 150 participants including 12 foreign delegates, Chandra, P.


6. Chairman for the plenary session, during the International Conference on Differential Equations, Dynamical Systems and Applications held at Atlanta. U.S.A. during May 19-May 24, 2003, Raghavendra, V.


8. Regularity Conditions and Optimality in Nonsmooth Vector Optimization, 24th June 2003, Dutta, J.
9. Monotonic Analysis over Cones, Department of Operations Research and Statistics, University of Alicante, Spain, 2nd July 2003, Dutta, J.

10. A Brief Overview of Nonsmooth Optimization, Department of Operations Research and Statistics, University of Alicante, Spain, 4th July 2003, Dutta, J.

11. Visit under the Associateship Programme of the Institute of Mathematical Sciences, Chennai, from May 6-June 6, 2003, Banerjee, M.


13. Parallel Iterative Solvers on Anupam Cluster, at BARC, May, 2003, Rathish Kumar B.V.


15. Introduction to numerical simulations in fluid dynamics, AICTE workshop on Simulation & Modelling at Beant College of Engineering, Gurudadpur, 15-20, March 2004, Rathish Kumar B.V.

16. Dominance Based Approach for Local Search Algorithms International Conference on OR, with Industrial and Economic Applications, Jan. 8-10, ISI Kolkata, Sharma, P.

17. XVIIIth International Symposium on Mathematical Programming, Technical University of Denmark, Copenhagen, Denmark, August 2003, Sharma, P.

18. Presented contributory paper, Chaired a session on combinatorial optimization, APORS 2003, Delhi, 7-9th Dec. 2003, Sharma, P.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING


DEPARTMENT OF MECHANICAL ENGINEERING
1. Developed a biped walking robot for the first time in India, which has possible applications in defense, nuclear, entertainment etc., Ashish Dutta.


4. Modernization of Introduction to Manufacturing Processes Laboratory (On going activity, Institute Core Laboratory), N.V. Reddy.

5. National Symposium for IC Engines and Combustion, 2007 to be hosted at IIT Kanpur. I was responsible for bringing it to IIT Kanpur for the first time, Avinash Kumar Agarwal.

6. Organizing chairing a session on Alternative fuels for compression Ignition Engines in SAE World Congress 2005 to be held in Detroit, April 2005, Avinash Kumar Agarwal.

7. Four modules consisting of 12 lectures of Kinematics of Machines prepared under NPTEL has been delivered for broadcasting in ‘Eklavya’ channel, A.K.Mallik.
Projects
1. Principle-investigator (with Prof. K. Muralidhar CI), Research Project sponsored by Department of Atomic Energy, Computational Fluid Dynamics Analysis of a low-pressure CVD reactor, as an aid to design. Worth: Rs 14,95,000/- Duration: 2003-2005. Deliverable: Further simulations of a CVD (Chemical Vapour Deposition) Reactor, for design optimisation. V. Eswaran


6. Principal Investigator, A course on Finite Element Applications in Metal Forming for TISCO (R&D) engineers (Four weeks course), TISCO, Jamshedpur, (Rs 2 lakhs). (Prof. PM Dixit is also a Principal Investigator), N. V. Reddy.

DEPARTMENT OF PHYSICS
1. Member, Organizing Committee, International Conference on Unconventional Applications of Statistical Physics (2003), D. Chowdhury.


8. A number of refreshing Physics experiments at school level were developed. 1-day workshops were conducted at different places. About 300 physics teachers from selected schools were trained, H.C. Verma.