



**NETAJI SUBHAS  
INSTITUTE OF TECHNOLOGY**  
(An Autonomous Institution under Govt. of NCT of Delhi)

**Undergraduate    Postgraduate    Research**



*For excellence in teaching at all levels, to enrich mental, spiritual, cultural and physical potentialities of students as well as to enthuse a sense of value, worthy of the democratic norms of India.*

**Dr. Ranjit Singh  
Director**

### **Perspective**

The Netaji Subhas Institute of Technology, erstwhile Delhi Institute of Technology, was established in 1983 to meet the growing demand for manpower in the fields of emerging areas of engineering and technology. It is an autonomous body affiliated to the University of Delhi and is fully funded by the Delhi Government. Within a short span of 21 years, Netaji Subhas Institute of Technology has carved a name for itself for excellence in technical education and research.

### **Mission**

The Institute proclaims “**Let noble thoughts come to us from every side**”, emphasizing innovation and manifold research opportunities.

### **Objectives**

The Institute was conceived and developed in such a manner that it would not only fulfill its obligation towards promoting research in high level technology but would at the same time, discharge its manifold responsibilities of becoming an Institute with a close societal and industrial interface.

### **Salient Features of the Institute**

- The number of students enrolled in the Institute as of date is **1591**.
- The intake of students in B. E. courses is **420** at present. There is to be an expected increase of another **20** seats with the start of Biotechnology from the academic session 2004-2005.
- The Institute has a well-equipped library with about **38,000 Books and 200 Journal subscriptions** including all IEEE and IEE, besides others. User and Catalog database is fully computerized. On-line access to most of the Engineering and Science literature is available. All major libraries are accessed through DELNET.
- The Institute has Internet access through 256 kbps OFC link and redundant 128 kbps radio link. The Internet connections are through leased line from VSNL. This facility has been extended to rooms of all faculty members, labs, as well as to faculty residences.
- Total sanctioned faculty strength at present is **118**.
- Extracurricular activities such as the annual cultural festival (**INNOVISION, MOKSHA, RESONANZ**) and annual sports meet are regular features. Awareness about ecological and environment friendly technology has also been initiated in the Institute.

### Laboratory Facilities

- The institute has well equipped laboratory facilities which include SGI Servers, Sparc Workstations, X-86/ Pentium based PCs/ Multimedia Systems, Windows NT Server and Workstation and Powerful Image Processing Systems.

### Campus

- The Institute is fully residential. It is situated in Dwarka sub-city in the outskirts of Delhi, spread over an area of 145 acres amidst the green environment. NSIT has a self-sufficient campus having administrative and academic blocks, library, computer centre, boys' and girls' hostels, bank, post office, shopping complex, canteen, water treatment plant and generator backup. The Institute is also developing a 22 acres sports complex within the campus.

### Placement

- The Institute has excellent placement records.

## ACADEMIC PROGRAMMES

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### Division of Electronics & Communication Engineering (ECE)

This Division was started during the session 1983-84 and it specializes in fields like Analog Integrated Circuits, Analog and Digital Signal Processing, Digital Systems Design, Embedded Systems, Microprocessors, Communication Theory, VLSI Design and Digital Communication. It is intended to develop this Division in such a manner that in addition to conducting educational programmes leading to B.E, M. Tech and Ph. D. degrees in chosen areas, it could also support industrial R&D activities and Technology Transfer. Current areas of research interest are: Analog and Digital Signal Processing, Analog Integrated Circuits Communication Systems, Microwave Engineering, Mobile Communication, Statistical Signal Processing, and Switched-Current Circuits.

**Programmes offered by this Division: BE, M. Tech. (Signal Processing) and PhD.**

#### Some of the important laboratories of this Division are:

- Electronics Laboratory
- Digital Integrated Circuits Laboratory
- Communication and Signal Processing Laboratory
- Microprocessors Laboratory
- Analog Integrated Circuits Laboratory
- Microwave Engineering Laboratory
- Digital Signal Processing Laboratory

- Analog Signal Processing Research Laboratory
- Advanced Analog/Digital Signal Processing Laboratory
- Advance Computing Laboratory
- Telemetry and Computer Communication Laboratory
- Optical and Digital Communication Laboratory

### Centre for Electronics Design and Technology (CEDT)

The above centre has been set up with the objective to offer consultancy services in the field of electronic product design, short-term professional courses and product development for industry. Current activities of the Centre include development of CPLD/ FPGA evaluation board and a flight data recorder for an aircraft.

### Division of Computer Engineering (COE) and Department of Information Technology (IT)

The Division of COE was started during the session 1984-85. At present, Department of Information Technology is a part of Division of Computer Engineering, which in near future will become a separate entity. In the COE and IT Division/ Department, the thrust is to cover all the basic and specialized courses as per industry needs. Some of them are: Computer Graphics, Software Engineering, Computer Organization, Computer Architecture, Networking, Multimedia, Microprocessors, Parallel Computing, Theoretical Computer Science, Data base Management Systems, Data Mining, Mobile Computing, Fault tolerant Computing, Operating Systems etc. Current areas of research are Software Engineering, CAD of VLSI and Embedded Systems. A lot of emphasis is given on R& D and industrial consultancy also.

**The Programmes offered by this division are B. E. (Comp. Engg.), B. E. (IT), M. Tech. (Information Systems) and Ph.D.**

#### The Division has following important laboratories:

- General Computing Laboratory
- Software Engineering Laboratory
- Object Oriented Modeling and Design Laboratory
- Computer Architecture Laboratory
- Distributed Computing Laboratory
- Data base Laboratory
- Computer Graphics Laboratory
- Networking Laboratory
- Artificial Intelligence Laboratory
- Advanced Computation and Project Laboratory
- Internet & Web Technology Laboratory \*
- Mobile Computing Laboratory\*
- Embedded System Laboratory\*

The division is in the process of building up these labs, and intends to start them very soon.

## **Division of Instrumentation & Control Engineering (ICE)**

This Division was started during the session 1988-89. It specializes in the area of Process Instrumentation, Modern Control Strategies, Biomedical Instrumentation, Robotics and Vision Systems, Sensor Technology, Mobile Equipment, Industrial Data Communication and Industrial Electronics. This division also provides R & D Consultancy to Industry in the appropriate area of Instrumentation and Control. Current areas of research are Power Electronics, Process Control, Intelligent Controllers, and Data Communication methods.

**The programmes offered by this division are B. E., M. Tech. (Process Control) and Ph. D. Two new M. Tech. Courses on Mechatronics and Industrial Electronics will be started very soon. Proposal for M. Tech. in Bio-Medical Engineering has been sent to AICTE for approval.**

### **Some of the important laboratories in the ICE Division are:**

- Mechatronics Laboratory
- Artificial Intelligence and Robotics Laboratory
- Process Control Laboratory
- Industrial Electronics Laboratory
- Biomedical Instrumentation Laboratory
- Electrical Measurement Laboratory
- Control Laboratory
- Industrial Data Communication Laboratory (Under development)

## **Division of Manufacturing Processes and Automation Engineering (MPAE)**

The Manufacturing Processes and Automation Division was started during the session 1995-96. Giant strides in field of electronics and computer science have culminated in the evolution of computer integrated manufacturing systems. It was started with the aim of providing coherent, intensive training programmes in the areas of CAD/CAM, CNC, Analog and Digital Electronics, Management of Manufacturing Systems, Machine Tools, Automation, Robotics, Computer Graphics, Artificial Intelligence and Non-Conventional Machining. A CAD/CAM/CAE Lab based on IDEAS software is being developed. Current areas of research are Welding, Non-Conventional Machining and Manufacturing Systems.

**The Programmes offered by this Division are B. E. and Ph.D. Proposal for M. Tech. in Production & Automation has been sent to AICTE for approval.**

### **Some important laboratories in the MPAE Division are:**

- Manufacturing Processes Laboratory
- Flexible Manufacturing Systems Laboratory
- Applied Mechanics/Mechanical Sciences Laboratory
- KDM/Metrology Laboratory
- CAD/CAM Laboratory
- Central Workshop
- Mechatronics Systems

- Industrial Electronics & Automation

## **Division of Bio-technology (BT)**

The new Division of Biotechnology aims to fulfil the human resource requirements of the rapidly growing Biotechnology sector. It is envisioned that the Division will engage research in the area of molecular medicine. Also, it will offer industrial consultancy in the fields of health, medicine and the development of biotechnological processes. The current research interests include deciphering the molecular basis of action of herbal drugs and understanding molecular basis of metabolic disorder leading to diabetes, obesity and cardiovascular disease.

**The undergraduate course in B. E. Biotechnology is being offered from the academic session 2004-2005. A proposal for M. Tech. in Bio-informatics has been sent to AICTE for approval.**

## **School of Applied Sciences (SAS)**

The School of Applied Science comprises of Physics, Chemistry and Mathematics.

### **The important laboratories of the School are:**

- Physics Laboratory
- Chemistry Laboratory
- Computational Mathematics Laboratory
- Precision Industrial Metrology Laboratory
- Opto Electronics Laboratory

**M. Tech. is proposed in Microwave, Photonics as well as in Computational Mathematics. This school also offers Ph. D. programme.**

### **Other Programmes**

- Continuing Education Programme (CEP) to update working engineers, teachers, and executives, working in the fields of Electronics, Computers, Instrumentation, Communications and Information Technology.
- Special Component Programme (SCP) for the benefit of SC/ST students, teachers and professionals.
- Industry-Institute Interaction Programme (IIIP).
- Plans for setting up a Science and Technology Entrepreneurship Park (STEP).



*For more Information, please contact:*

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