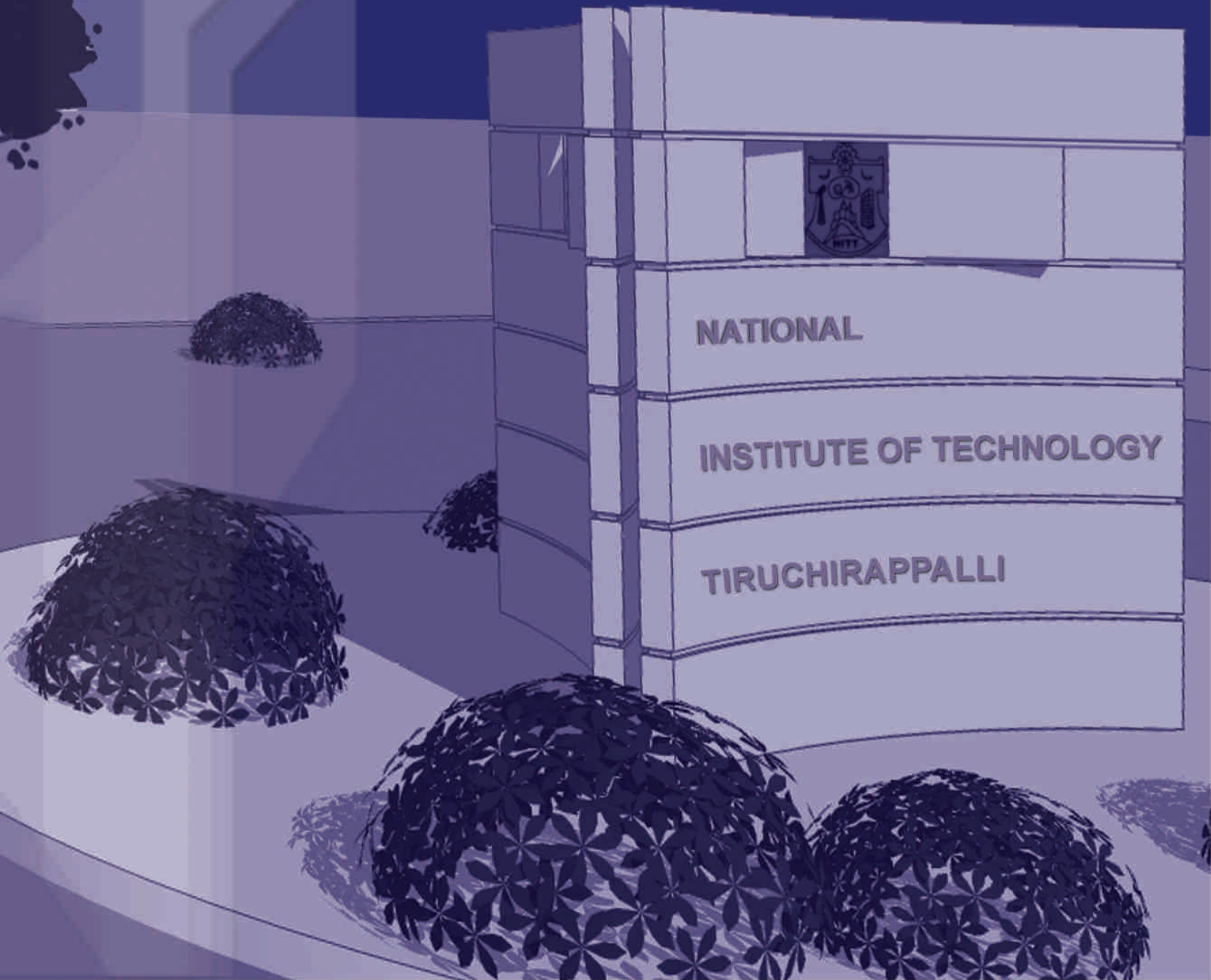


NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI

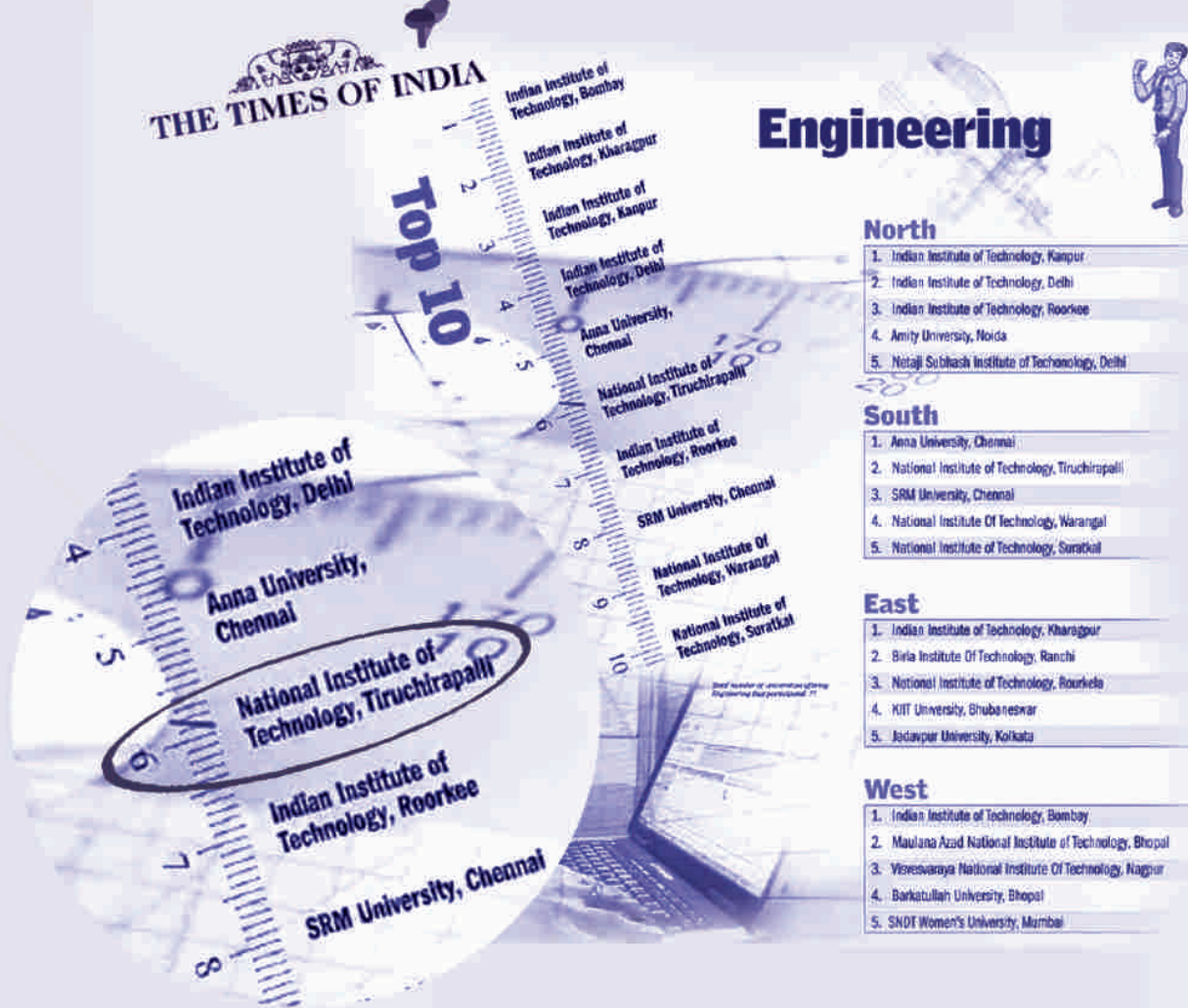


UNDER GRADUATE
PLACEMENT INVITATION 2010



National Institute of Technology, Tiruchirappalli is one of the premier institutes in the country in the field of technical education where both the cream of students and faculty co-exist. Over the years, it has produced students with impeccable engineering acumen while providing a conducive environment for the development of extracurricular talent. The students also acquire

strong leadership, communication and team skills which ensure a smooth and effective transition into the corporate world. Various surveys have consistently ranked NITT among the top engineering institutes in India and this is further proof that we are among the very best.



FROM OUR ESTEEMED RECRUITERS

Keep up your good work. – Tata Projects

Very good hospitality. – HSBC

Great visit. Our idea to keep visiting Trichy was reaffirmed by our 1st visit – 3M

Campus interviews were well organized – NTPC

Had a very good experience – Adobe

Thanks for all the help. The coordinators were very helpful – Analog Devices

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INTRODUCTION

The Department of Architecture in National Institute of Technology, Trichy had a humble origin 29 years ago in the year 1980. Today we have faculty members who have specialised in all important branches of architecture and a group of able students drawn from all over the country.

The architectural wing of the main library houses more than three thousand books on architecture and related fields. There is also a large collection of architecture books in the department library. Together we have evolved a work culture that has brought us success.



CURRICULUM

Core Subjects

- Architectural Design
- Computer Application in Architecture
- Building Construction & Materials
- Climatology
- Landscape Architecture
- AutoCAD
- Advanced Graphics
- Visual Arts

Advanced Subjects & Electives

- Building Services
- Mechanical & Electrical Services
- Air Conditioning (HVAC Systems)
- Professional Practice
- Town Planning
- Building Economics
- Project Management & Evaluation
- Energy Efficiency in Buildings

Computer Courses

- Programming in C
- Autodesk Design Software
- Adobe
- 3D Studio Max
- Flash
- BREEZE
- I.E.S.
- Software for Sunshade Design

PROJECTS

- Documentation and analysis of Palace of Ramanathapuram.
- Documentation and analysis of Sengi Kottai.
- Analysis of Goubert Avenue, Puducherry.
- Analysis of Isha Yoga Centre, Coimbatore.
- Analysis of Saravana Stores, Chennai.

LAB FACILITIES

• Building Science Lab :

Heliodom, Miniature Video Camera with video processor, measuring devices, globe thermometer, anemometer and a wide range of data loggers.

• Acoustics Lab :

Acoustics Impedance Tube.

• Photography Lab :

Colour and Monochrome.

• Computer Lab :

Photoshop, Corel Draw, 3D Max Studio, MAYA, all versions of AutoCAD and other building design softwares like DAYLIGHT, BREEZE and VIRTUAL ENVIRONMENT.

• Survey Lab :

Chain, Compass Survey and Levelling.



INTRODUCTION

Established in 1968, the Department of Chemical Engineering, NIT Trichy is regarded as one amongst the few premier centers for chemical engineering in India by industries as well as academics. The National Board of Accreditation (NBA) has granted the department A(+3) certification for 3 years. It also has the distinction of being ranked as one of the top seven chemical engineering

departments in India by chemical engineering faculties. The department is backed by highly qualified and experienced faculty who have been involved in various industrial projects and consultancy services. The students have presented many papers in India and abroad and have won several national level design competitions.



CURRICULUM

Core Subjects

- Material technology
- Mechanical operations
- Fluid mechanics
- Chemical engineering thermodynamics
- Process calculations
- Mass transfer
- Heat transfer
- Process dynamics and control
- Inorganic chemical technology

Computer Courses

- C,C++
- AutoCAD
- Numerical methods
- Design 2
- Matlab

Management Subjects

- Human psychology and organisational behaviour
- Industrial economics and management
- Corporate communication

Advanced Subjects

- Bio chemical engg.
- Process equipment and design
- Petroleum and petrochemical engg.
- Transport phenomenon
- Process economics
- Applied mathematics in chemical engg.
- Safety engg.
- Polymer science and technology

- Energy engg.
- Process modelling

Science Subjects

- Physical chemistry
- Organic chemistry

PROJECTS

- The department has been sanctioned Rs.20 lakhs from FIST towards networking.
- MHRD Thrust Area project titled, "CFD modelling of chemical process equipment".
- MHRD - MODROBS project on modernisation of chemical reaction engineering laboratory is in progress.

LAB FACILITIES

• Process control and Instrumentation lab :

Plant condition simulator
Energy Trainer and Simulator

• Unit Operations Lab :

Fluid Mechanics
Mechanical Operations
Heat and Mass transfer

• Technical Analysis Lab :

Gas-Liquid Chromatography
Spectrophotometry

• CEESAT (Center for Energy and Environmental Science and Technology) :

An energy center has been established by the Government of India and the Government of UK to carry out research in energy saving and optimisation.



INTRODUCTION

Established in 1964, the Department of Civil Engineering is one of the oldest and finest departments of the institute. The vision is to shape infrastructure development with societal focus. Its mission is to achieve international recognition by developing professional civil engineers, offering continuing education and interacting with industry with emphasis on R&D.

The department has labs which are equipped with cutting edge machinery and instruments. The highly experienced faculty of the department contribute immensely to academic research. Many research papers have been presented in reputed international conferences by the faculty and students.



CURRICULUM

Structural Engineering

- Analysis of Structures
- Design of Steel & RC Structures
- Matrix Analysis of Structures
- Soil Engineering
- Concrete Technology

Hydraulics Engineering

- Mechanics of Fluids
- Irrigation & Water Power Engineering
- Water Resource Engineering

Electives

- Advanced Foundation Engineering
- Pre-stressed Concrete
- Plate & Shell Structures
- Experimental Stress Analysis

Environmental Engineering

- Water Supply Engineering
- Solid Waste Management
- Air Pollution

Transportation Engineering

- Railway Engineering
- Highway Engineering
- Airway Engineering
- Waterway Engineering
- Traffic Engineering
- GIS, GPS & Remote Sensing

PROJECTS

- Polymer - fibre reinforced concrete beam subjected to bending and torsion.
- Development of interactive software for reservoir simulation.
- Water management studies in Agniar river basin.
- Development of a remote sensing image integration cell for rural & urban planning.
- Interactive software for Vaigai reservoir operation with inflow prediction using simulation, artificial neural networks.

LAB FACILITIES

- **Structural Engineering Lab** : 1000 kN UTM, 2000 kN CTM, PUNDIT, corrosion analysis instrument, Photo-elastic polariscope, covermeter Schmidt hammer.
- **Transportation Engineering Lab**: Geo-gauge, Fatigue Testing Machine, Dynamic Cone Penetrometer & Benkleman Beam Deflectometer, GPS, Pavement Management System, Vehicle Emission Testers, Radar Speed Gun & Material Testing.
- **Software** : MX-roads, Arc GIS, ERDAS Imagine 9.1.
- **Environmental Engineering Lab** : Atomic Absorption Spectrometer, UV visible Spectrophotometer, Ion analyzer, Orbital Shaking Incubator, UV Spectrophotometer.
- **Computer Lab** : STAAD III, STAAD PRO, STRAAP, CADS & ANSYS, TRIPS, MIGRAN, AutoCAD, Auto Civil, Auto plotter, GIS packages including ArcInfo, Arc View, Map Info, Inter graph, ENVI.
- **Survey Laboratory** : Micro-optic Theodolite, Laser Theodolite, Auto-level, Digital Planimeter & Electronic Total Station.
- **Soil Mechanics Lab** : Motorised triaxial testing machine, Motorised direct shear equipment, Load cell, LVDT, Triaxial, Uniaxial testing machines and CBR apparatus, Fluid Mechanics and Hydraulic Machinery Turbines, pumps and pipe testing equipment.



INTRODUCTION

The B.Tech. course in Computer Science & Engineering is one of the most coveted courses in NIT Trichy. The students of the department rank among the elite. The dedicated and highly experienced faculty impart top quality education. The course has been carefully designed and frequently updated to cover all the aspects of education

in this field, including both hardware & software, and caters to the current global demands. It has at its disposal various labs equipped with highly capable workstations and the Octagon Computer Centre. It also has an enviable and vast collection of books and other publications related to the world of Computer Science.



CURRICULUM

Core Subjects

- Data Structures
- Introduction to Algorithms
- Principles of Programming Lang.
- Automata & Formal Lang.
- Digital Computer Fundamentals
- Digital System Design
- System Programming
- Operating System
- Computer Networks
- DBMS
- Microprocessor Systems

Laboratory Practicals

- OS Lab (DOS, Windows, GNU/LINUX)
- Programming Languages (C, C++, JAVA)
- DS & Algorithms
- DBMS (Oracle & SQL)
- System Programming
- Linear & Digital Ics
- Microprocessor & Interfacing
- Compiler Design

Electives

- Computer Graphics & Display Systems
- Parallel Algorithms
- Compiler Design
- Distributed Computing
- AI & Expert Systems
- Cryptography
- Real Time System & Network Security
- Artificial Neural Network & Fuzzy Logic
- ARM System Architecture

Mathematics

- Numerical Computing
- Probability Theory
- Operations Research
- Combinatorics & Graph Theory

PROJECTS

- Collaborative Directed Basic Research in Smart and Secure Environment sponsored by National Technical Research Organization.
- Automatic Test Case Generator for evolving Processor Architectures.
- **Page Functions:** Developing a Faster approach to Address Translation.
- Bus architecture for multicore systems.

LAB FACILITIES

- **CSE Laboratory :** The CSE laboratory has around 50 Pentium IV based PCs, an IBM Netfinity Server, an IBM Pentium MMX running LINUX and Windows NT, an IBM RS/6000 Machine and a Sun Cluster Platform.
- **RISE Laboratory :** The Reconfigurable & Intelligent Systems Engg. laboratory is a high end computer laboratory with twelve workstations and two high end systems (of 32 GB RAM each).
- **Microprocessor Lab :** The Lab is equipped with 8085 and 8086 Microprocessor training kits. It is used to conduct practical sessions for Digital IC lab and Microprocessor based interfacing Lab.
- **Octagon Computer Centre :** The centre has over 250 nodes and half a dozen Pentium based servers. It also has various Solaris based Sun machines, HP, DEC Alpha Ultra Space and Silicon Graphic workstations.



INTRODUCTION

The Department of Electrical and Electronics Engineering has been a pillar of strength in NIT Trichy and also in the engineering community, since 1964. The department boasts of excellent lab facilities and courses for electrical, electronics and computer applications which provide ample opportunities for students to build their own circuits and

systems for projects. The dedicated faculty impart training to students not only in the core courses but also in allied areas such as instrumentation, communication & computer subjects. The curriculum is framed by the faculty members with significant contributions from well known industrialists and experts to keep track of the current industrial trends.



CURRICULUM

Structural Engineering

- Theory and operation of AC and DC Machines
- Design of Electrical Apparatus
- Power Analysis
- Switch gears and Protection
- HVDC Transmission
- Digital and Analog Control Systems
- Network Analysis and Synthesis
- Electro magnetics

Computer Science

- C, C++ Programming Languages
- Operating Systems
- Data Structures
- Computer Architecture
- Computer Networking & Graphics
- Assembly Language Programming
- Microcontrollers and Interfacing
- Neural Networks and Fuzzy Logic

Electronics

- Design of Digital & Analog Electronic Circuits
- Linear Integrated Circuits
- Electronic Measurements
- Power Electronics
- Principles of Communication
- Systems and Biomedical Instrumentation
- Digital Signal Processing

PROJECTS

The department faculty have done extensive research work in the areas of power systems, power electronics and applications of neural networks and fuzzy logic. A number of controllers for energy efficient drives and renewable energy systems have been designed and developed.

- Application of Genetic Algorithm for High Performance power converters.
- Unified power flow controller.
- Control of a hybrid wind-driven induction generator and PV array distributed generator for the isolated and grid-connected operations.

LAB FACILITIES

• Microprocessor & Micro-Controller Laboratory :

8085 and 8086 Microprocessor Training kits, 8031 and 196 (16-bits) Micro-Controller Training kits, 32-Channel Logic Analyser.

• Electrical Machines Laboratory :

All types of DC Machines, single phase and three phase squirrel cage and slip ring induction motors, single-phase and three-phase transformers.

• Computer Lab :

PSPICE, SABER, MATLAB, SIMULINK and PSCAD.

• Power Electronics and Drives Lab:

General purpose and storage oscilloscope, power semiconductor devices like Power MOSFETs, Driver ICs, LCR-Q meter, Thyristor converters, IGBTs of various voltages and current ratings, Opto-Isolators, Pulse transformers and other related commutating components. Power electronics modules such as DC/AC choppers and Inverters.



INTRODUCTION

The Department, since establishment in 1968, has striven to maintain its high standards by revising academic syllabi to suit the industrial requirements. The courses are in sync with the growing demands of the research community. The focus of the curriculum is mainly on 'Wireless Communication' & 'VLSI System Design'. The curriculum is reinforced by sets of elective courses

offering specialisation in either Software or Hardware aspect of Communication Systems. The alumni consistently feed inputs for improvement of the curriculum and research facilities. The consistent quality of the department has earned it the prestigious 'A' grade from the National Board of Accreditation.



CURRICULUM

Wireless Communication

- Mobile Communication
- Digital Communication

Digital Signal Processing

- Signals and systems
- DSP Architecture (TMS320C5x, 3x, 54x)

VLSI System Design

- VHDL, Verilog
- Digital Design

Computer Architecture

- Microprocessors (8086, Pentium)
- Microcontroller (8051)
- Embedded Systems (Motorola 68HC11, 12, ARM)
- Networks and Protocols

Solid State Devices & Circuits

- Analog ICs
- Amplifiers and Oscillators

Communication Switching Systems

- Electromagnetics
- Transmission Lines and Waveguides
- Microwave components and devices

Communication Techniques

- Communication Electronic Circuits
- Communication Systems

Information Theory

- Probability and Random Process
- Statistical Theory of Communication

PROJECTS

- Design and implementation of multiband OFDM UWB transceiver using asynchronous pipelining funded by Department of Information Technology(DIT), New Delhi.
- Special Manpower Development Project (SMDP) on VLSI design and related software, funded by Ministry of Information and Telecommunication, Govt. of India.
- Optimisation techniques for System on Chip (SoC) implementation of target recognition system, Department of Science & Technology (DST), New Delhi.
- Development of signal processing systems for core temperature measurement, IGCAR.

LAB FACILITIES

- **VLSI Design Lab** : Altera QUARTUS, NIOS IDE, ORCAD, FOUNDATION Series, Synopsis, Leonardo synthesizer, SPICE Variants (ELDO Spice), Model Tech Corporation's MODELSIM & SABER, Ultra 10. CADENCE & Mentor graphics mixed signal kits, Synopsis & Magma Digital Kit, Coware Designer. **Hardware** : XILINX FPGAs and CPLDs-DSP Development Kits Stratix II & Xtreme (Virtex IV), Spartan III starter kit with I/O interface, Virtex II pro board.
- **Microwave Lab**: Vector Network Analyzer, Spectrum Analyzer, MIC Kit, Microwave test benches and MIC Design Software (IE3D, Agilent ADS & HFSS).
- **DSP and Microcontroller Lab**: Motorola Onyx (56300, 303,309), HAWK Processors (56000, 003,009) & 68HC11 Power PCs with complete tools. Software Tools- MATLAB, MEPEE light, DADISP, VIRTUOSOT MRTOS v4.0, Floating Point Processors from Texas Instruments (TMS320C67x, C3x) with Code Composer Studio.
- **Microprocessor Lab**: Micro processing and Interfacing Laboratory with 8085 and 8086. Microprocessor 8086 and Microcontroller 8051 & 32-channel Logic Analyzer.
- **Fiber Optics Lab & Solid State Circuits and Devices Lab**



INTRODUCTION

The Department of Instrumentation and Control Engineering was established in 1993. The department has modern labs in the areas of MEMS, smart structures, simulation and control of electromechanical systems, analysis of control systems and process control. Guided by young and energetic faculty, the department envisages

being a world-class school of instrumentation & control. It is involved in providing quality education to the students with a dynamic curriculum that caters to the ever-improving industrial & research needs. Students are encouraged to design & develop products to suit the needs of society.



CURRICULUM

Instrumentation

- Sensors & Transducers
- Industrial Instrumentation
- Biomedical Instrumentation
- Electrical & Electronic Measurements
- Analytical Instrumentation
- Opto-electronic & Laser based Instrumentation
- MEMS

Electrical & Electronics

- Analog Electronic Circuits
- Electron Devices

- Network Theory
- Digital Techniques
- Linear Integrated Circuits
- Microprocessors & Microcontrollers
- Signals & Systems
- Data Communication Systems

Control

- Classical Control Systems
- Modern Control Theory
- Logic & Distributed Control

- Chemical Process Control
- Analysis of Feedback Controllers

Software

- C & C++ Programming
- Data Structures & Algorithms
- Programming tools
- Operating Systems
- Personal Computer & Interfacing
- Computer Networks

Electives

- Neural Networks & Fuzzy Logic
- Virtual Instrumentation
- Automotive Control Systems
- Power Electronics
- Power Plant Instrumentation
- Industrial Instrumentation Practices
- Digital Control Systems

PROJECTS

- DST, Government of India, has sanctioned Rs. 90 lacs to provide centre of excellence in the area of MEMS and Mechatronics in the year 2007 for 3 years.
- Control of Multi variable process using soft computing, funded by DST.
- Design of Electrorheological (ER) Damper based suspension control system, funded by Aeronautics R&D towards Reliable & Smart Air-Vehicles (UKIERI).
- Design & development of Micro Devices, funded by NPSM - National Programme on Smart Materials.

LAB FACILITIES

- **Sensors & Transducers Lab** : LVDT, load cells, strain gauges and accelerometers and design of signal conditioning circuits.
- **Electronics & Instrumentation Lab** : Design, testing and simulation of analog & digital circuits in PSPICE, instrumentation systems for process variables.
- **Control Systems Lab** : Controller design & analysis, Modeling & simulation of electrical & electro-mechanical systems.
- **Virtual Instrumentation & MEMS Lab** : Creation of virtual instruments, analysis & design of MEMS devices using software tools.
- **Process control Lab** : Trainer kits for temperature, pressure, flow & level control, heat exchanger set-up, PLC with computer interface, DCS simulator.
- **Biomedical Instrumentation Lab** : Physiological parameter analysis using Respiratory analyzer, ECG monitoring equipment, blood pressure monitoring system & Blood Glucometer.
- **Microcontroller & Embedded Systems Lab** : Programming of interfacing cards for stepper motor, USART, PLC. Design of microcontroller & embedded systems. Data acquisition cards compatible to embedded systems.



INTRODUCTION

One among the first four departments to be established in 1964 in the institute, the Mechanical Engineering Department of NITT has the reputation of being among the finest in the country. Keeping itself up to date with the latest developments and trends and with a team of highly qualified and experienced faculty, the department consistently strives to provide world class facilities for

education and research. The department has an excellent industrial interaction and contributes to the industry by offering consultancy services. Students are encouraged to take up projects and training that are essential for their career growth and give them exposure to the requirements of the industry.



CURRICULUM

Design Engineering

- Engineering Metallurgy
- Strength of Materials
- Mechanics of Machines
- Design of Machine & Transmission Elements
- Optimisation Techniques

General Engineering

- Applied Electrical & Electronics Engineering
- Mechatronics

Manufacturing Engineering

- Production Technology
- Machine Drawing
- Production Drawing & Cost Estimation
- Metrology & Quality Control

Software Engineering

- Programming in C
- Computer Aided Design & Drafting

Advanced Engg. Subjects

- Advanced IC Engines
- Finite Element Method
- Nuclear Power Engineering
- Welding Technology
- Tool Engineering & Design
- Combustion & Gasification Engineering
- Computational Fluid Dynamics
- Robot Technology

Management

- Industrial Engineering

- Behavioral Sciences & Industrial Management
- Operations Research

Thermal Engineering

- Engg. Thermodynamics
- Thermal Engineering
- Heat and Mass Transfer
- Turbomachines
- Refrigeration & Air Conditioning
- Automobile Engineering
- Power Plant Engineering

PROJECTS

- Theoretical and experimental investigations on performance influencing parameters of industrial air compressors.
- Process modelling and online monitoring of laser beam welding.
- Experimental Investigation and finite element simulation of work ability of Al-TiC powder metallurgy composites during cold upsetting.

LAB FACILITIES

- **Thermal Engineering Lab** : IC Engine test rigs, air compressor test rigs, bio-diesel optimisation plant, fuel testing equipment.
- **Refrigeration and Air-Conditioning Lab** : Vapour compression, vapour absorption & air conditioning tutor.
- **Heat Transfer Lab** : Pin-Fin apparatus, guarded hot plate apparatus, heat exchanger, emissivity measurement apparatus, film and drop wise condensation unit.
- **Automobile Lab** : Auto system assemblies, steering gear box (manual), power steering (hydraulic), full car cut section, car AC & LPG kits, vehicle chassis (heavy & light), motor bikes & scooters, electric two wheelers.
- **Dynamics Lab** : Free and forced vibration apparatus, gyroscope, jump speed of cam setup, Dynamic Balancing Machine.
- **Industrial Safety Lab** : Friction tester, high volume sampler, fire extinguisher with accessories, impact tester.
- **CAD Lab** : Pro Engineer (Wildfire), Unigraphics, CATIA, MATLAB, Fluent, Gambit, ANSYS, MAYA, Abacus.
- **Metrology Lab** : Calibration facilities for pressure, temperature and length as per internationally accepted standards, co-ordinate measuring machine, toolmaker's microscope.



INTRODUCTION

The Metallurgical and Materials Engineering department, established in 1967 is ranked among the best in the country. Its highly qualified faculty and advanced laboratories earned it the best Department award for the year 2008-09. It maintains a symbiotic relationship with premier research institutes like IISc(Bangalore), IIT (Madras), CECRI (Karaikudi), WRI (BHEL Trichy) etc.

Regular upgradation of the syllabus along with frequent visits to well established industries enable the department to mould the students to meet the ever-changing industrial demands. Many of the faculty members have got prestigious fellowships like BOYSCAST and awards like Govindaraj Memorial Award.



CURRICULUM

Extractive metallurgy

- Mineral Dressing
- Iron and Steel Making
- Extraction of Non-Ferrous Metals
- Process Modelling & Computer applications in metallurgy
- Transport phenomena

General Engineering

- Industrial Economics
- Corporate Communication
- Instrumentation Engineering

- Mechanical Technology
- Strength of Materials

Industrial Metallurgy

- Welding and foundry
- Non-Destructive Testing & quality control
- Metal Forming Technology
- Corrosion Engineering
- Fractography and Failure Analysis
- Special Steels & Cast Irons

- Special Casting Techniques

Software

- Unix Operating Systems
- Shell Programming
- Programming in C and C++
- Operating Systems
- DBMS, SQL
- Thermocalc

Material science

- Nanomaterials
- Ceramics
- Composites and polymers
- Surface engineering
- Electrical, Electronic and magnetic materials

PROJECTS

- Development of ultra high strength aluminium based in-situ composites by cryorolling.
- Friction stir welding of high strength materials using double shouldered tool.
- Development and Characterisation of One Dimensional Oxide Nanomaterials for Gas Sensing Applications.
- Development of nano and metastable magnesium based multi-component alloys.
- Nanostructure and Bimodal Nanostructured Aluminium Alloys by Severe Plastic Deformation (SPD).

LAB FACILITIES

- **Powder Metallurgy** : Induction Sintering Furnace, Friction Press, Centrifugal Ball Mill, Planetary Ball Mill, Glove Box, Sintering Furnaces.
- **Corrosion Testing Laboratory** : Manual / Computer controlled Potentiostat / Galvanostat, Facilities for Salt Spray Test, Stress Corrosion, Electro and Electroless Plating & other surface treatments.
- **Welding Laboratory** : SMAW/GTAW/GMAW/PAW/ERW power sources and facility for automatic welding.
- **Mechanical Testing** : UTM, Tensometer, Creep, Fatigue & Hardness testing machines
- **Surface Engineering Laboratory** : Facilities for room temperature and high temperature Pin-on-Disc wear test, Apparatus for erosive wear test, dry sand abrasive wear test, pulse rectifier for composite / nanocoating / alloycoating.
- **Metallography**: Scanning Electron Microscope, High resolution microscopes with photographic facilities, Image analyser.
- **Process Modelling Laboratory** : Thermocalc and DICTRA packages & databases.



INTRODUCTION

Established in 1983, the Department of Production Engineering strives towards excellence in the field of Production and Industrial Engineering. It was declared as the best department of the institute for the year 2006-2007. State-of-the-art laboratories are available in the areas of CAD, CNC, mechatronics, simulation & operations management. The department has a central

workshop equipped with power tools in carpentry, lathes, milling machines, shaping machines & special machines like Hobbing, EDM, tool & cutter grinder. The faculty of the department play a vital role in academic research. Many research papers have been published in reputed national & international journals.



CURRICULUM

Manufacturing Technology

- Traditional and Non-Traditional Machining Process
- Foundry and Welding Process
- Metal Forming Process
- Metallurgy and Material Testing
- Mechanical Measurements and Metrology
- Manufacturing Planning and Control

Finite Element Analysis

- Machine and Product Design

Allied Engineering

- Thermal Engineering
- Fluid & Solid Engineering
- Automobile Engineering
- Plant Engineering
- Mechatronics

Automation and CAD/CAM

- Computer Graphics, AI and Expert systems
- CNC Machines
- Automation, CIM & Industrial Robotics
- Machine Tool Control & Automats

Engineering Design

- Theory of Machines
- Design of Machine Elements
- Design of Production Tooling

Management

- Operations Research, Production & Materials management
- Quality Reliability & Maintenance
- Industrial Economics & Management
- System based Industrial Engineering

Software

- C, C++
- Database Management Systems
- Mechatronics Software
- Hydraulic and Pneumatics Control Software

PROJECTS

- Neural network based prediction of deformation, densification and work ability behaviour of nano TiC particles reinforced Al matrix nano-composites.
- Development of models and algorithms for functional integration in supply chain.
- Improvement of wear resistance of Ti- alloy disc brake rotor through laser surface melting.
- Hybrid laser-GMAW welding, laser beam welding and gas metal arc welding of AISI 904L super austenitic stainless steel.
- Comparison of hole expansion ratio, stretch flangeability, wrinkling behaviour and crash worthiness of high strength IF steel tailor welded blanks, fabricated by various welding techniques.

LAB FACILITIES

Production Workshop

Centreless Grinding Machine, Universal Tool and Cutter Grinder, Electric Discharge Machine (EDM), Gear Hobbing, Carpentry Power Tools, SCORBOT ER IV & V plus HMT STC-15 Turning Center, HARTFORD Vertical Machining Center, AS / RS, Machine Vision System, Lead Well CNC Turning Centre, Co-ordinate Measuring Machine.

CAD/CAM

Packages like NICA
Pro Engineer (Wildfire)
Unigraphics
3D Studio V3
Auto CAD Designer

Animator Pro
Master CAM
AutoCAD R-14



INTRODUCTION

The sterling hallmark of the campus is the OCTAGON computer centre. This centre serves the campus-wide LAN which caters to 1300 users across the campus at the same time and has a 100 Mbps fiber optic backbone. The Octagon has a server room with 30 servers, 800 high-end computers and four user labs. It also has centralised air conditioning and uninterrupted power supply, printer room equipped with two high speed printers which can print upto 50 ppm. A new annexe building with a capacity of 200

computers has come up next to the Octagon. It houses 2 labs, one of which is connected to the Internet via an 8Mbps leased line from the STPI while the other is a general lab acting as an extension to the ones already present in Octagon. Arrangements can be made on prior intimation to use the computers in the Internet Lab for conducting online tests. The Computer Support Group offers courses under its continuing education programme for the students as well as the local community.



CURRICULUM

UNIX Servers/Workstation

SunFire - Solaris Server
Sangam - Linux File Server
Platinum - Internet Proxy Server

Windows Server/Workstation

Aditya- Network Storage Server
Agni - Windows 2003 File cum
Domain Server
Recent- Internet Accounting Server

Novell Netware Servers

Vayu - Secondary Netware File
Server
Sakthi - Office Automation Server

DTP Packages

Applied EEE
Control Systems

Operating Systems

Windows Server 2003
Enterprise Edition
Windows XP Professional
Red Hat Enterprise Linux
Fedora Core 7
Red Hat Linux 9
Novell Netware 6
Sun Solaris 10
Mac OS X 10.2

CAD/CAM Packages

Pro/Engineer Wildfire 3
CATIA V5
UniGraphics
Solid Works
AutoCAD 2007
Maya 8
Fluent
Gambit
Adobe, Corel &
Macromedia Products
ANSYS 11

Software

Microsoft C V 5.1
Lisp
Lotus Notes 2.6
Microsoft Office 2007
Matlab 7
SQL Server
Star Office
Oracle 9i/10g
Visual Studio.NET 2003
Lotus Notes
Power Builder

LAB FACILITIES

- **Electronic CAD (ECAD) Lab** : ORCAD, PSPICE MAXPLUS II, XILINK's FOUNDATION Series, Synopsis Leonardo Synthesizer Model Tech Corporation's MODEL SIM & SABER. It also has the required hardware for programming the Xilinx's FPGA and CPLD.
- **DSP Design Lab** : Texas Instruments TMS32C6X Evaluation Module(EVM), 6X Simulator, TMS32OC54X, 5X and 3X kits and simulator. This lab is used predominantly for project work. Development of EVM TMS32OC6X is under progress.
- **DBMS Lab** : This lab houses 56 Pentium Systems & has the clients for software such as Oracle, Db2, Java VC++.
- **Multimedia Lab** : The Multimedia Lab has 16 Multimedia Pentium IV systems to be used extensively by the students to learn Multimedia Applications. Series of interactive sessions & workshops with faculty from University of Leeds and University of Sheffield, UK have been conducted.
- **Motorola Sponsored Lab** : The IT centre also possesses a DSP and Microcontroller Laboratory sponsored by Motorola. It is equipped with Pentium systems, ONYX Processors with full set of tools, HAWK Processors, 68HC11 power PCs with complete tools and software such as Matlab, MEPEE light DADISP, VIRTUOSOTMRTOS V 4.0.



INTRODUCTION

The institute has a modern central library with more than one lakh documents consisting of technical books, reports, standards and back volumes of journals. The library subscribes to 179 periodicals(print) plus 1000+ (e-journals) besides a holding of 15493 bound volumes (back-numbers). The library also contains 15,000 books in textbook bank. Besides the central library, each department has its own library. The open access system is observed in the library.

Our institute holds membership with the British Council Library, Chennai. We also hold membership with DELNET, New Delhi for interlibrary loan. The library functions such as acquisition, circulation control, cataloguing and serials control have been automated using an integrated software called "LIBSYS". A new state-of-the-art digital library will be inaugurated shortly which will benefit the students immensely.



SPECIAL SERVICES

- Wireless fidelity service.
- Bulletin board service.
- News headlines with weekly update.
- Current awareness service.
- CD-ROM search service.
- Audio-visual service (educational cassettes).
- Membership to external agencies and individuals.

STATISTICAL DATA

- Library Books – 107571
- e-books titles accessible through Springer (India) Pvt.Ltd – 670.
- Journals subscribed – 205
- e-journals subscribed under TEQIP – 9
- Back volumes – 17454
- Reports – 7786
- B.I.S. - 12449
- Video cassettes - 1504
- Audio cassettes - 31
- CD-ROM databases - 1367

INDEST CONSORTIA

As a member of Indest Consortia (MHRD initiative) NITT library is allowed to access the following e-journal databases for accessing more than 5000 full text e-journals.

- IEL (113 journals): Access to the full archives of IEEE and IEE publications, available from 1998 to the present.
- Sciencedirect (334 journals)
- Springerlink (498 journals)
- ASTP (160 journals)
- ACM (30 journals)
- ASME (18 journals)
- ASCE "NATURE" online
- INDIAN STANDARDS on intranet





During NITTFEST, departments square off against each other over two days, on an even keel, to battle over quizzes, debates, music, terpsichorean delights and more. Its a time when heros emerge in all, heartbreak for some, ecstasy for others, but glory for the college and a treat for all. It is thus evident that NITTFEST is more than just a fest - it is in effect, a tribute to the creative genius inherent in every Nittian.



The inter-college cultural festival at our institute, FESTEMBER, is spread over four days. FESTEMBER brings to the surface the cultural talents among the youth from over 200 colleges all over the country. The students involve themselves actively in organizing cultural events. The fest incorporates various english, hindi and tamil literary events, informals, rock shows, movie-making in addition to music and dance competitions. Our college also hosts performances by eminent celebrities from the music industry adding glamour and grandiosity to this cultural carnival.



PRAGYAN is the annual international technical extravaganza organized by the students of NIT, Trichy. This mega event aims not only to promote the celebration of the spirit of technology but, also to draw and hone the latent talent and provide a podium to recognize and showcase technology, innovation and creativity on an international scale .



There are about 30 student clubs in the institute. They range from cultural clubs such as ROTARACT, LEO, UNESCO and WISDOM to social awareness clubs such as SPIRIT-Ed (Student Participatory Initiative for Rural IT Education), NITT for CRY and a chapter of the SPICMACAY movement. There are also special interest clubs for photography, karate and trekking. These clubs organize cultural gatherings and interaction programmes throughout the year.

The Delta Force & Spider are active groups of designers and programmers responsible for the maintenance of the website and the development, administration and updation of content on the intranet and follow industry standard practices for server management, code versioning and issue tracking. Being part of the team is a steep learning experience as it strives to excel in terms of knowledge and productivity.

The institute has well developed sports facilities for the students. There are grounds for cricket, hockey, basketball, football, volleyball and tennis, besides indoor courts for badminton and table tennis attached to each hostel, and at the sports centre. There is also a fully equipped gymnasium. A newly constructed 'Semi Olympic' swimming pool adjacent to the sports centre adds more pride to the institute campus.

There are various academic and computing societies, which are dedicated to the goal of sharing technical information and spreading computer awareness among students and promoting Robotics and Digital Signal Processing. Notable among these are the GNU-Linux users groups of Trichy (GLUG-T), IEEE, RMI, ACM and the ISA Student Chapters of NITT.



INTRODUCTION

The Department of Training and Placement is the marketing division of the institute. Over the years, the department, acting as an interface between institute and companies, has maintained symbiotic, vibrant and purposeful relationship with industries across the country. As a result, it has built up an

impressive placement record both in terms of percentage of students placed as well as number of companies visiting the campus. The department hosts companies on campus and ensures that every aspirant is assured of a bright career of his/her choice.



HOSTING COMPANIES ON CAMPUS

The department provides facilities for the visiting companies to conduct pre-placement talks, written tests, group discussions and interviews. Audio visual aids like laptops, LCD projectors for pre-placement talks and internet facilities for online tests will be arranged upon prior intimation. Conveyance from/to airport or railway station is arranged by the department.

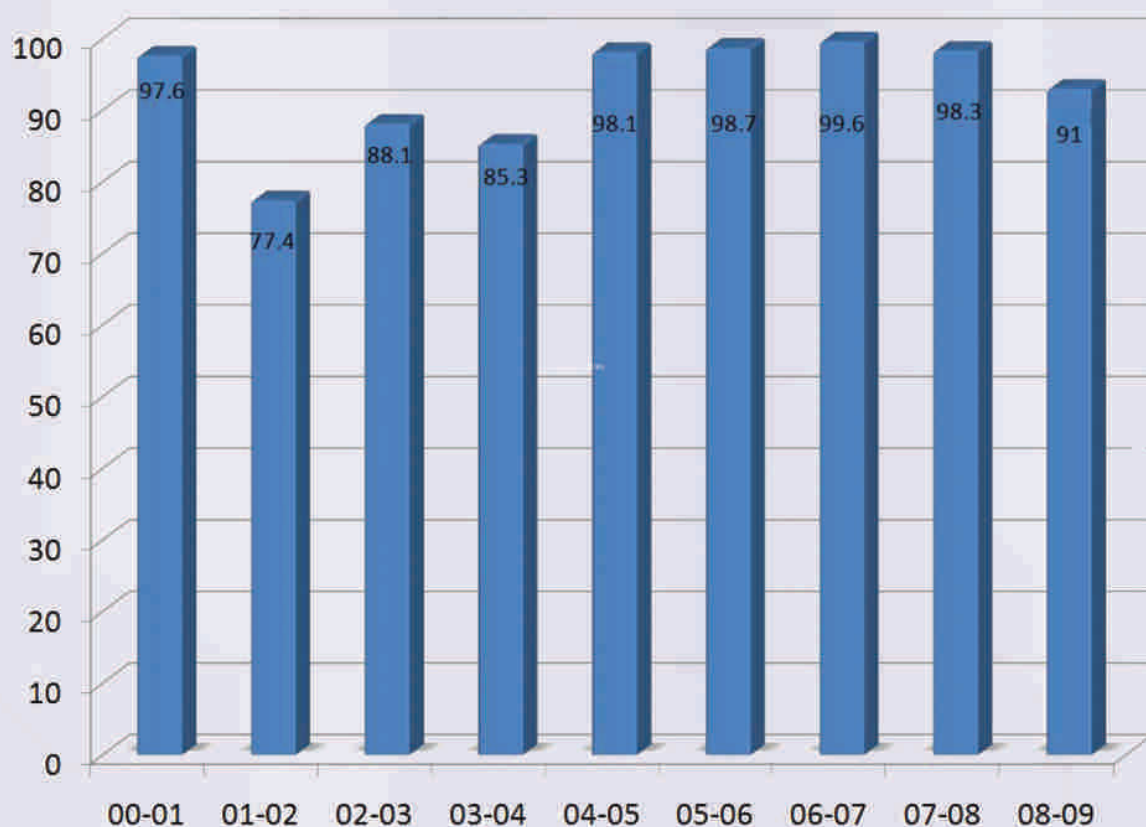
Accommodation and food is provided at the institute guest house for the company on prior intimation and the cost of these are borne by the institute. In case the company executives wish to stay outside the campus, all arrangements for their accommodation will be made but the costs are to be borne by the company.

FUNCTIONS AND RESPONSIBILITIES

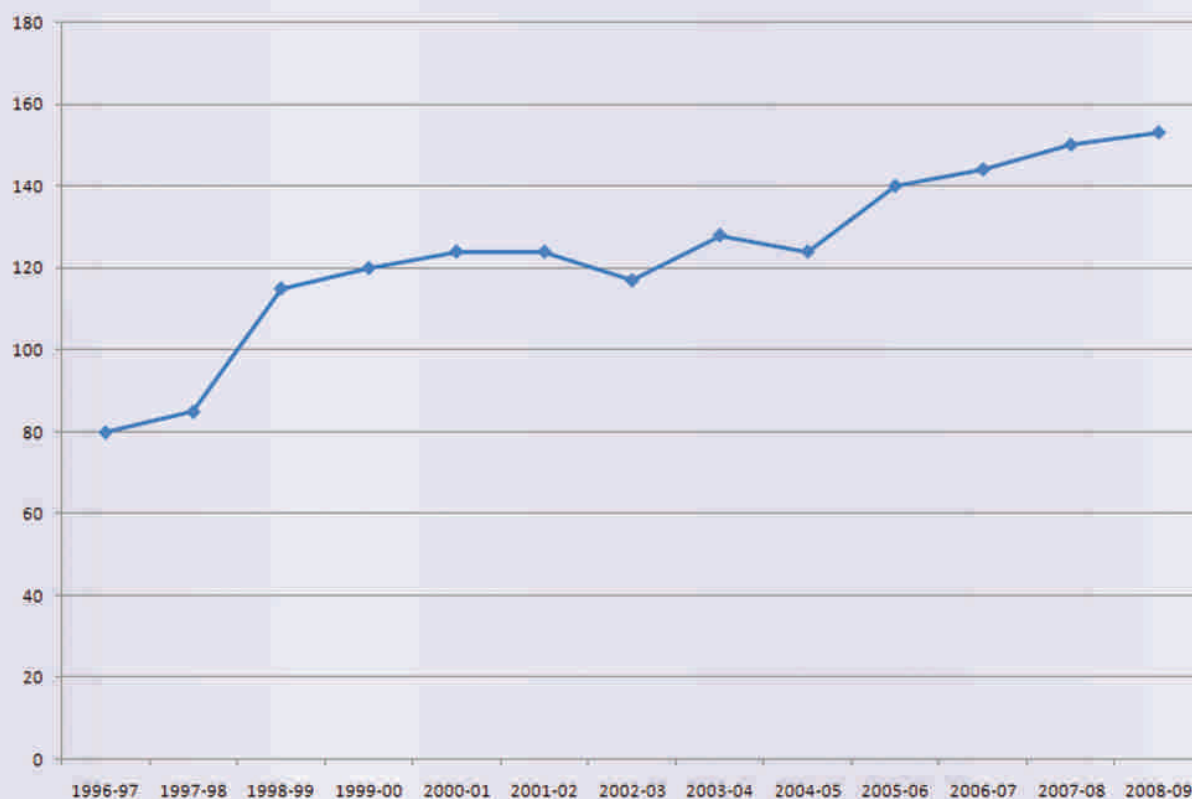
- Nurtures industry institute interaction, by organizing and coordinating frequent industrial visits, inplant training and projects of industrial relevance for the students, with the sole aim of zeroing down the hiatus between the industry and the academia.
- Organises & coordinates campus placement programme, to fulfill its commitment of a career to every aspirant.
- Helps every student define his/her career interest through individual expert counselling.
- Makes available updated database and job profile of the companies and thus helps each student analyse and choose company of his interest. The department has in its active file a database of nearly 500 companies.
- Works towards continuing education for the employees.
- Receives and forwards the feedback pertinent to curriculum improvement from the visiting companies to the faculty, to ensure that the curriculum follows the latest industrial trends.



OVERALL PLACEMENT



COMPANIES VISITING



Rock Fort Temple

This temple crowns a massive outcrop of rock, that soars 83 metres upwards, from the surrounding plains. Halfway up is the Sri Thayumanaswamy Temple, dedicated to Lord Shiva, having a 100-pillared hall, and a Vimana, covered with gold. On the southern face of the rock, are several beautifully carved, rock-cut cave temples of the Pallava period. Built by the Nayaks, who were the founders of the city, it was one of the main centers around which the wars of the Carnatic were fought in the 18th century during the British - French struggle for supremacy in India.

**Sri Rangam Temple**

This temple, 6 kms north of the city, is among the most revered shrines to Lord Vishnu in South India, and probably, the largest temple complex in the country. Enclosed by seven rectangular walled courtyards, this 13th century temple has 21 gopurams. The town, and the temple, are set on a 250-hectare island in the Cauvery, connected to the mainland by a bridge. The temple is very well preserved, with excellent carvings, and numerous shrines to various gods, though the main temple is dedicated to Lord Vishnu.

**Natharvali**

Constructed with four doors according to Vedic sastras and seppulingam, this shrine is a witness to ghee lamp burning near the grave of Baba Natharvali. The saint breathed his last on the 15th of the month of Ramzan in Hijiri 417 and with a view to remembering this day, the first 17 days in the month of Ramzan every year, Kanduri Urs is celebrated in a highly grand scale. It is a unique feature to see Muslims, Hindus and Christians assemble to pay their homage and warm respects to Baba Natharvali on the eve of the Kanduri festival and seek his graceful blessings.

**Thanjavur**

Thanjavur is home to the famous Brihadeeswara Temple, one of the UNESCO World Heritage Sites. The Brihadeeswara Temple was built by Rajaraja Chola during the 11th century. Among the other historic buildings are the Vijayanagara fort and the Manora Fort - a monumental tower, built by Serfoji II and situated about 65 km away from Thanjavur.

**Kallanai (Grand Anaicut)**

Kallanai is one of the greatest engineering marvels of India. The Grand Anaicut built by Karikalan Chola in the 2nd century A.D. to harness the waters of the Cauvery. Made of stone, the dam is 329m long and 20m wide and still very much in use. Additions have been made in the form of a road bridge on top of the dam.

**St. Lourde's Church**

Built in 1812, this Church has louvered doors, which when opened, turns the church into an airy pavilion. Its excellent setting and marvelous architecture, makes it a site worth visiting.



3M	DALMIA CEMENT	ISPAT	SONATA SOFTWARE
A2Z INFOTECH PVT LTD	DECIDYN	ISRO	SONY INDIA SOFTWARE LTD
ABB	DECIPHAR	ITC LIMITED	SPAN CONSULTANTS
ACC	DELL	ITTAM	SPCL
ACCENTURE	DELOITTE	IVY COMPTech	SPECTRUM INFOTECH
ADOBE	DELPHI	JOHN DEERE	SPEL SEMICONDUCTORS
AIRTEL	DIEFFENBACHER	JSW	SQL STAR
AIRVANA	DOLCERA ITES	JUNO ONLINE	SRF
ALSTOM	DOW CHEMICALS	KENNA METAL	SRISHTI SOFTWARE
AMADA SOFT	DRDO	KIRLOSKAR	ST MICROELECTRONICS
AMAZON	E-FRONTIER	KLA TENCOR	SUN MICROSYSTEMS
AMDOCS	EICHER EIL	L & T GROUP	SUNDARAM CLAYTON
ANALOG DEVICES	ELECTROLUX	LANCO KALAHASTI	SUNDARAM FASTENERS
ANAND GROUP	ELECTROSTEEL	LEHMANN BROTHERS	SUZUKI METAL INDIA
ANSYS Fluent	ELGI EQUIPMENTS	LG	SYMANTEC
ANZ	ELOGITECH	LOUIS BERGER INC	SYMPHONY SERVICES
APC	ENERCON	LUCAS-TVS TECH.	SYNERGY
APPLIED MATERIALS (AMAT)	ENERGY INFRATECH	M&M AUTO SECTOR	SYNGENTA
AREVA T&D	ERNST & YOUNG	MANHATTAN ASSOCIATES	SYNOPSYS
ARICENT	ESAB INDIA	MARUTI UDYOG LTD.	SYNTEL
ARIS GLOBAL	ESSAR STEELS	MCAfee	SYSBIZ TECHNOLOGIES
ASHOK LEYLAND	EXETER GROUP	MCDOWELLS	TAFE
ASIAN PAINTS	EXIDE	MECON	TATA BLUESCOPE STEEL
ATHENA	FCRI	METLIFE INDIA INSURANCE	TATA ELXSI
ATHEROS LLC INDIA	FICHTNER (INDIA)	MICROSOFT	TATA INFOTECH
AURIGO	FMC TECHNOLOGIES	MIDHANI	TATA MOTORS
BAJAJ AUTO LTD	FORD	MINDTREE	TATA POWER
BALMER LAWRIE & CO	FOSTER WHEELER	MISYS	TATA PROJECTS
BANK OF MAHARASHTRA	FOURSOFT	MODELTYICS	TATA STEEL
BASF	FREESCALE SEMICONDUCTORS	MORGAN STANLEY	TATA TELESERVICES LTD
BECEEM COMMUNICATION	FROST AND SULLIVAN	MOTOROLA S/W	TATA TINPLATE
BEL-CRL	FUTURES FIRST	MRPL	TAVANT TECHNOLOGY
BEML	G E- JFWTC	MU SIGMA	TCE
BEROE INC	GABRIEL INDIA	MURUGAPPA GROUP	TCS
BGR ENERGY	GAMMON INDIA LTD.	NESTLE	TECH MAHINDRA
BHARAT FORGE	GB INDUSTRIES	NETAPP	TECHNIP ABU DHABI
BHARTI TELECOM	GCI SOLUTIONS	NETKRAFT	TECHNIP INDIA
BHARTI AIRTEL	GE ENERGY	NETLABS	TEJAS NETWORKS
BHEL	GENERAL OPTICS	NMDC	TELCON
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BIRLA SUNLIFE	GFT	NTPC	TESPL
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BMC SOFTWARE	GLOBAL LOGIC	NVIDIA GRAPHICS	THERMAX INDIA
BOC	GLOBAL TELESYSTEMS	ONMOBILE	THOROGOOD
BOSTON ANALYTICS	GMT	ONGC	TINPLATE
BPCL	GODREJ GROUP	ONIDA	TITAN INDUSTRIES LTD
BPL	GOLDMAN SACHS	OPEN SILICON	TOSHIBA
BRAKES INDIA	GOOGLE	ORACLE	TOTAL ENVIRONMENT
BRITANNIA	GRASIM INDUSTRIES	PATNI	TRANSYS TECHNOLOGY
CALSOFT	GRINDWELL NORTON	PEPSICO INDIA	TRIAD
CAPGEMINI	GUJARAT GAS	PHILIPS	TRILOGY
CARITOR	HAL	POLARIS	TTK
CARRIER AIRCON	HCL	PRAXAIR	TVS MOTORS
CASTROL	HDFC	PRICOL	TVS SRI-CHAKRA
CATERPILLAR	HM	QUEST GLOBAL	UB GROUP
CCCL	HNGIL	RAMCO	UCAL MACHINE TOOLS
C-DOT	HONDA	RECL	UOP
C-DOT ALCATEL	HONEYWELL	REDPINE SIGNALS	UPL
CEAT	HP	RELIANCE COMMUNICATION	VEDANTA
CELSTREAM	HPCL	ROBERT BOSCH	VERITAS
CHEMPLAST SANMAR LTD.	HSBC	SAI TECHNOLOGY	VERIZON DATA SERVICES
CHOLAMANDALAM	HUAWEI	SAINT GOBAIN	VIDEOCON
CISCO	HUL	SAIPEM INDIA	VIRTUSA
CITI FINANCIAL	HYUNDAI	SAMSUNG	VMWARE
COCA COLA	I2	SANDISK	VOLTAS
COCHIN SHIPYARD LTD.	IBM	SANDS	VOLVO
COMPUTER ASSOCIATES	ICICI INFOTECH	SASKEN	VSNL
CONEXANT	ICODE	SATYAM COMPUTERS	WAPCOS
CONVERTEAM	IDBI	SATYAM VENTURES ENGG.	WATER JET GERMANY
COROMANDEL FERTILIZERS	IDEA CELLULAR	SERVICES	WELSPUN
COSMIC CIRCUITS	I-FLEX SOLUTIONS	SCHLUMBERGER	WHEELS INDIA
COUTH IT	IGATE GLOBAL SOLUTIONS	SCHNEIDER ELECTRIC	WHIRLPOOL
CROMPTON GREAVES	IMRB	SCOOTERS INDIA	WIPRO
CSC	INAUTIX	SECON PRIVATE LTD.	WS ATKINS
CUB	INDO-US MIM TEC	SHARP	XILINX
CUMMINS	INFINEON	SHAW WALLACE	YAHOO!
CTS	INFORMATICS INFOSYS	SHELL TECHNOLOGY INDIA	YOKOGAWA
CYPRESS SEMICONDUCTORS	INTEL	SIDBI	ZS ASSOCIATES
D.E. SHAW (DESIS)	INTELLIGROUP	SIEMENS	
DAIMLER CHRYSLER	INTUIT	SOBHA DEVELOPERS	





NIT Trichy, is situated 20 kms from the city of Trichy on the Trichy-Thanjavur highway. Trichy, being located at the geometric centre of the state of Tamil Nadu is well connected by rail, road and air. Major highways seamlessly link Trichy with other parts of the state and the country. Flight and train timings given below are as of June 2009.

TRAIN TIMINGS

Train. No	Train Name	From	To	Days of Operation	Departure	Arrival
6178	Rockfort Express	Trichy	Chennai-Egmore	Daily	22:00	05:10
6177	Rockfort Express	Chennai- Egmore	Trichy	Daily	22:30	05:15
6232	Mayiladuthurai Express	Bangalore	Trichy	Daily	19:05	04:05
6231	Mysore Express	Trichy	Bangalore	Daily	20:35	06:05
2605	Pallavan Express	Chennai-Egmore	Trichy	Daily	15:30	21:00
2606	Pallavan Express	Trichy	Chennai-Egmore	Daily	06:30	12:00
2635	Vaigai Express	Chennai-Egmore	Trichy	Daily	12:25	17:25
2636	Vaigai Express	Trichy	Chennai-Egmore	Daily	09:15	14:40
6607	Mangalore Express	Chennai-Egmore	Trichy	Daily	22:00	04:45
6608	MAQChennai Express	Trichy	Chennai-Egmore	Daily	22:20	05:30
6127	Guruvayur Express	Chennai-Egmore	Trichy	Daily	07:50	13:00
6128	Guruvayur Chennai Express	Trichy	Chennai-Egmore	Daily	13:55	20:15

FLIGHT TIMINGS

FLIGHT NUMBER	AIRLINE	DAYS OF OPERATION	FROM	TO	DEPARTURE	ARRIVAL
17-491	PARAMOUNT	SUNDAY	CHENNAI	TRICHY	21:30	22:15
17-491	PARAMOUNT	DAILY EXCEPT SUNDAYS	CHENNAI	TRICHY	21:55	22:40
IC-967	AIR INDIA	DAILY	CHENNAI	TRICHY	13:10	14:00
IT-2911	KINGFISHER	DAILY	CHENNAI	TRICHY	12:35	13:55
17-492	PARAMOUNT	SUNDAY	TRICHY	CHENNAI	22:40	23:25
17-492	PARAMOUNT	DAILY EXCEPT SUNDAYS	TRICHY	CHENNAI	23:05	23:50
IC-968	AIR INDIA	DAILY	TRICHY	CHENNAI	04:40	05:35
IT-2912	KINGFISHER	DAILY	TRICHY	CHENNAI	14:25	16:00

N.B.: Flights from Bangalore, New Delhi, and Hyderabad via Chennai are also flown by the Kingfisher Red Airline on specific days.



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