

# PLACEMENT BROCHURE



**NATIONAL INSTITUTE OF TECHNOLOGY, SILCHAR**



## MISSION

*The mission of NIT Silchar is to train and transform young men and women into responsible thinking engineers, technologists and scientists, to motivate them and to attain professional excellence and to inspire them to proactively engage themselves for betterment of society.*

## VISION

*The vision of NIT Silchar is establishing unique identity by development of high quality human and knowledge resources in diverse areas of technologies to meet local, national, and global economic and social need and human society at large in self sustained manner.*

## DIRECTOR'S MESSAGE



Since its inception NIT Silchar has had a vision to provide quality technical education and to act as a centre of excellence for engineering and scientific research. Today NIT Silchar is considered a national brand and in attaining this position, a major contribution has come from our faculty and staff as well our students and the alumni. NIT Silchar is now considered as one of the best institutes in the whole country in terms of placements and overall performance.

Our study programmes, here at NIT Silchar, are designed to instil leadership, teamwork and global focus among learners. The undergraduate and the Postgraduate as well as the Ph.D programmes are continuously and closely monitored and regularly revised to include latest trend-setting technological theories and practices.

***Jai Hind.***

**Prof. N.V Deshpande**  
**DIRECTOR, NIT Silchar**

## MESSAGE FROM FIC



NIT Silchar is one of the oldest T-schools in the country and the oldest in this region. We had the privilege to host more than 64 companies in 2012-13 session culminating in more than 95 percent placement. The Industry-Institute linkage is getting cemented over the years. The courses here are regularly restructured to meet the ever-changing industry requirement. The institute now offers Masters and PhD programmes in all branches. We have further broadened the scope of education through the inception of our very own MBA Department. We earnestly request you to be a part of the NIT Silchar community and contribute your share by way of taking an active part in building the industry-institute interface which can only help maintain our competitive edge.

The technical class we are training today will be the problem solvers and visionaries of tomorrow.

**Dr. N. B. Dev Choudhury**  
**FIC, T&P Cell**



# THE INSTITUTE

NIT Silchar was established as an REC (Regional Engineering College) in 1967. In the year 2002, was transformed into an NIT and bestowed with the status of deemed university. Subsequently in the year 2007 it was upgraded to “An institute of National Importance”. NIT Silchar has since then built an international reputation in the field of technology, innovation and research. The programmes and courses that are offered at NIT Silchar are perpetually evolving to adapt to the ever changing global requirements. Students are selected through JEE-Mains for B.Tech programme and GATE for M.Tech programme. Less than 2% of the total appeared make to the NITS. Being one of the Best Engineering College in East India we have the proud presence of state-of-art labs, Centre for Development of Advance Computing and full functioning Research Promotion cell has helped the institute become one of the nation’s nerve centre for research and development, and technical education.

The sprawling, lush and opulent campus, covering an area of 600 acres, state of the art support system and excellent infrastructure add up to its reputation of producing the brightest minds of the country.

# ACADEMIC LIFE



**NIT Silchar** has always stood for the best in education and pedagogy. We design our courses to promote deep understanding and learning of concepts and our curriculum is constantly evolving, keeping in sync with global research. The following are some of the key components of curriculum at our campus. The programme structures for all our disciplines have been designed to challenge the brightest minds. Each academic year is divided into 2 semesters, with the following outline:

## ***Undergraduate Programmes***

Bachelor of Technology (B.Tech)

Admission through: AIEEE

Duration: 4 Years

Stream: Mechanical, Electrical, Civil, Computer Science and Engineering, Electronics and Communication, Electronics and Instrumentation.

Industrial Training : 3 months.

Final Year Project : 1 Year

## ***Graduate Programmes***

Master of Technology (M.Tech)

Admission through: GATE + Interview

Duration: 2 Years

Stream: .

Assistantship: Affiliated to course instructors or research projects.

M.Tech Project: 1 Year

Master of Science (M.Sc)

Admission through: JAM

Duration: 2 Years

Stream:

M.Sc Project: 1 Year

## ***Masters of Business Administration (MBA)***

Admission through: CAT+Interview

Duration: 2 years

Focus:

MBA Project:

Note: The institute follows a 10-point grading system.

# NITS - NURTURING INNOVATION SINCE 1967



- ***A legacy of more than 46 years:***

Right from its inception National Institute of Technology - Silchar (then Regional Engineering College-Silchar) in 1967, has played pivotal role in delivering to the technocratic demands of the world. The alumni of the institute have proved its worth in global arena and many of them designated in senior positions at highly respected institutions.

- ***Creamy Layer Student Community:-***

Out of this massive crowd of about 1.3 million aspirants applying for AIEEE, about top 1.5% make it to the most sought after and highly respected institutions like NITs. Out of which NIT-Silchar itself offers seat to only 0.04% of the total aspirants.

- ***Highly Qualified Faculty:-***

The faculty, besides doing world class research, ensure that the students of the campus are ready to face the challenges of the professional world by providing them with a sound conceptual understanding of their respective disciplines, and also by playing a huge role in their development as individuals who can lead and lead well.

- ***An institute of national importance:-***

With an average annual fund of ₹ 150 crores received by the institute, the country envisions its future in us. Identified as a Centre of Excellence by the Government of India, the institute is reinventing itself to crush the competition from its contemporaries in various domains.



- ***The Accolades:-***

We are ranked 31st in the country by OUTLOOK and 25th by DATAQUEST. This NBA accredited institute also won the award for being the best engineering college in Eastern India by ASSOCHAM.

- ***Industry Institute Interface:***

NIT Silchar has signed MoUs with various organisations of international repute (like C-DAC, NASSCOM, National Instruments, IBM, TATA Technologies, University of Illinois and many more) which facilitates the students with regular Industrial training exposing them to a practical working environment. Moreover students pursue Industrial, managerial and research internships in leading Multinational firms and Research Labs contributing substantially to the industry. Intensity & rigour of the Practice School Programme makes our students employment ready to take on work life challenges.

- ***Industrial Audit Courses:***

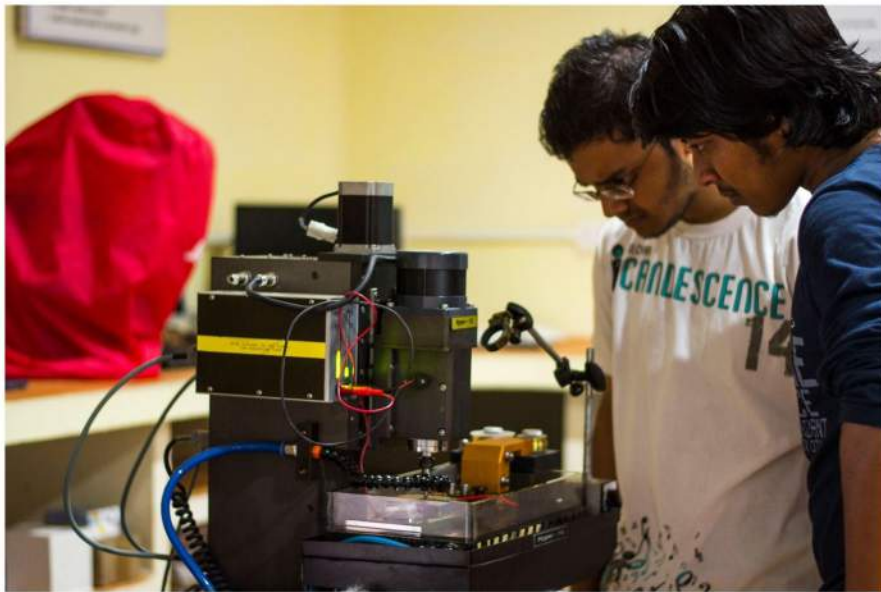
Enrichment of the academic programme, with the introduction of Industry oriented Audit Courses, open and inter-departmental electives, promotion of interdisciplinary research allows students to expand their horizon of learning and to diversify their knowledge.

- ***Connected Location, Vivacious Spirits:-***

The campus is home to students from 28 Indian States and 15 countries. The vibrant socio-cultural system moulds our students into easily conformable species, ever-ready to adjust everywhere. Using the power of Technology the ever motivated students of NIT-Silchar make themselves true professionals, ready to take on work life challenges.



## DEPT. OF MECHANICAL ENGINEERING



### PROFILE

The department of Mechanical Engineering offers a 4-year B.Tech programme, a 2-year M.Tech programme in Thermal Engineering and Manufacturing & Design Engineering besides doctoral programmes in various areas of the discipline.

### CORE

- Thermodynamics • Manufacturing Processes • Machine Drawing • Material Science
- Theory of Machines and Mechanisms • Machine Design • Mechanics of Solids
- Heat Transfer • Turbo Machinery • Theory of Metal Cutting • Power Plant Engineering
- Dynamics and Control of Machinery • Engineering Inspection and Quality Control
- Industrial Engineering and Operation Research • Refrigeration and Air Conditioning
- Mechanics of Fluid • Automobile Engineering

### ELECTIVE

- IC Engine • Compressor and Gas Turbine • Mechanical Vibrations • Tool Design
- Production and Management • Energy Engineering and Management • Gas Dynamics
- MEMS and Nanotechnology • Hydraulic Machines • Finite Element Method In Engineering
- Robotics and Robot Applications • Solar Architecture • Air Conditioning • Supply Chain Management

### LABS

**Thermal** - • Thermodynamics Lab • Heat Transfer Lab • IC Engine Lab • Refrigeration and Air Conditioning Lab  
• Automobile Lab • Engine Research Lab • Turbo Machinery Laboratory • Fluid Mechanics Lab  
• Renewable Energy Lab • Gas Dynamics Lab • Non conventional Energy Lab • Energy Research Lab

**Design** - • Engineering Mechanics Lab • Machine Dynamics Lab • Instrumentation Lab • Solid Mechanics Lab  
• Computational /CAD Lab • (ANSYS,ProE,AVL FIRE,MATLAB)

**Production** - • CNC Laboratory • Advanced Manufacturing Engineering Lab • Material Testing Lab • Metrology Lab  
• Condition Based Monitoring Lab • Micro-Nano Manufacturing Lab





## DEPT. OF CIVIL ENGINEERING



### PROFILE

The department of Civil Engineering was set up in 1977 and ever since, it has constantly been imparting quality technical education, preparing the students to face challenges along with meeting social and human needs. The department has an experienced and distinguished faculty with diverse specializations, further complemented by good laboratory facilities and an exemplary ambience for research and development.

### CORE

- Strength of Materials
- Building Materials and Construction
- Surveying
- Fluid Mechanics
- Engineering Geology
- Transportation Engg-1
- Structural Analysis
- Transportation Engg.
- Estimation and Evaluation
- Environmental Engg-1
- Geotechnical Engg.
- Structural Analysis -II
- Structural Design -I
- Functional Planning of Buildings
- Structural Design-II
- Hydraulic Engg.
- Foundation Engg.
- Structural Analysis-III
- Structural Design-III
- Environmental Engg-II
- Hydrology and Flood Control.
- Humanities -III(Managerial Economics)
- Numerical Analysis and Computer Application in Civil Engineering.

### ELECTIVE

- Irrigation Engg.
- Environmental Studies
- Earthquake Engg
- Advanced Foundation Engg
- Advanced Environmental Engg
- Matrix Method of Structural Analysis
- Advanced Surveying
- Ground Improvement and Rock Mechanics
- Bridge Engineering
- Water Resources Development
- Ground Water System Management
- Urban Transportation System
- Traffic Engineering
- Elements of Remote Sensing and GIS
- Railway Engg.
- Advanced Structural Engineering
- Finite Element Methods in Engg
- Optimisation Methods in Engg. Design.

### LABS

- Transportation Engg.
- Surveying.
- Geotechnical Engg.
- Hydraulic Engg lab
- Concrete and Structure Lab.
- Environmental Engg.Practical
- Engineering Geology
- Numerical Analysis and Computer Application in Civil Engineering.

## DEPT. OF COMPUTER SCIENCE & ENGINEERING



### PROFILE

To provide students with strong conceptual foundations (theoretical and experimental) expose them to the forefront of the developments in the field of computing and produce computer science graduates who, trained in the design, implementation, and analysis of computational systems and skilled in technical communication, will contribute towards the advancement of computing science and technology.

#### CORE

- Computer Programming , Data Structure, Applied Graph Theory, Principles of Programming Languages Computer Graphics, Microprocessor and Peripherals, Operating Systems, Numerical Analysis and Algorithms Compiler Design, Design and Analysis of Algorithms, Database Management Systems, Distributed Computing Computer Network and Communication, Software Engineering, VLSI Design and CAD, Computer Organization

#### ELECTIVE

Parallel Algorithms, Advanced Database Management Systems, Modelling and Simulations, Computer Systems Performance Evaluation, Information System and Management, Computer Graphics and Applications, Object Oriented Programming, Fuzzy Logic and Neural Networks System Analysis and Design, Artificial Intelligence, Pattern Recognition and Machine Intelligence

#### LABS

General Purpose Computer Centre, Database Management Laboratory, Operating System Laboratory Data Structure Laboratory, UNIX Laboratory, SUN workstations, DEC alpha workstations IBM RS/6000

## DEPT. OF ELECTRONICS AND COMMUNICATION



### PROFILE

The Department of Electronics and Communication Engineering offers a 4 year B.Tech Degree, 2-year M.Tech degree in 'Microelectronics and VLSI design' and Ph.D in various areas of the discipline. The faculties of the department have wide variety of expertise with strong academic background and are the alumni of reputed institutes across India. The graduates of the department are placed in various organisations across the globe. Mock tests, group discussions, quizzes, seminars and pre-placement interviews are organised for the students to give them real time exposure to the placement drives.

### CORE

- Basic Electronics
- Signals, systems and Networks
- Analog Electronic Circuits
- Power Electronics
- Semiconductor Devices and Circuits
- Principles of Communication Engineering
- RF and Microwave Engg.
- Pulse and Digital Electronic Circuits
- Analog Electronic Circuits and Technology
- Digital Communication
- Probability and Random Processes
- Computer Organization and Microprocessors
- Introduction to VLSI Design
- Electromagnetic Field Theory and Propagation
- Digital Signal Processing
- Measurement and Instrumentation
- Principles of optoelectronics and fibreoptics

### ELECTIVE

- Advanced Microprocessors
- Optical Communication Networks
- Digital Image Processing
- Satellite Communication
- Information Theory, Coding and Cryptography
- CAD for VLSI
- Biomedical Instrumentation
- Embedded Systems
- Advanced VLSI Design
- Antenna & Wave propagation
- Smart Antennas for Wireless Communication
- Analog IC Design
- VLSI-DSP based Designing
- Mobile and Cellular Communication
- Digital Speech Processing
- Low Power VLSI Design
- Telecommunication Switching and Networks
- RF and Microwave Integrated Circuits

### LABS

- LEC
- DEC
- Microprocessors
- VLSI
- Communication Control
- DSP
- Advanced Communication

## DEPT. OF ELECTRICAL ENGINEERING



### PROFILE

In order to keep pace with ever changing industry requirements, the course for electrical engineering has been designed to meet demands of the competitive market. It also includes courses in communication, computer architecture, signal processing and integrated VLSI design. The department also boasts of its high quality experienced faculty members. The department offers a 4 year B.Tech degree and a 2-year M.Tech degree besides Ph.D in various advanced areas of Electrical Engineering.

### CORE

Power System, Control System, Circuit Theory, Electric Drives, Electrical Machines, Industrial Electronics, Electromagnetic Fields, Principles of Communication, Switchgear and Protection, Industrial Instrumentation, Linear and Digital Electronics, Electrical Engineering Materials, Signal Processing & applications, Measurement and Measuring Instruments, Microprocessor and Microcontroller systems and their applications, Renewable Energy Source and Management, Programming and data structure, Computer Architecture and Organization, Computer Applications in Electrical Engineering

### ELECTIVE

High Voltage Engineering, Higher Control Systems VLSI Design, Intelligent and Knowledge Based System, Modeling and simulation, Distribution System Planning and Automation, Advanced Electrical Machines Hydro Electric Engineering, Industrial Management, EHV, AC and DC Transmission, Fault Detection and Diagnostics Computer Application in Power System, Control System Components and Signal Design, Electrodynamics and Advanced Field Theory, Electric Power Utilisation and Traction Advanced Power Electronics, Advanced Instrumentation, Flexible AC Transmission, Biomedical Engineering Soft Computing Techniques and Applications, Real Embedded systems

### LABS

Electric Machine Laboratory, Control and Instrumentation Laboratory  
Measurement and Instrumentation Laboratory, Power Electronics Laboratory  
Microprocessor Lab, Drives Lab, Energy Lab, Power System Lab,  
Circuit and Network Theory Lab, Digital and Analog Lab, Photovoltaic Cell Lab,  
Relay testing Lab

# DEPT. OF ELECTRONICS AND INSTRUMENTATION ENGINEERING



## PROFILE

Instrumentation Engineering is a multi-disciplinary stream and encompasses courses of mechanical, chemical, electrical, electronics and computer science. The aim of the department is to produce graduate engineers capable of handling design, construction, and maintenance of modern instrumentation systems, thereby improving system productivity, reliability, safety, optimisation and stability.

### CORE

- Electrical and Electronic Instruments
- Electronic Circuits
- Transducer Engineering
- Process Engg-I
- Linear and Digital Electronics
- Computer Networks
- Digital Electronics and Logic Design
- Control Systems
- Industrial Instrumentation -I
- Communication Engineering
- Digital Signal Processing
- Data Structure
- Power Electronics
- Process Engineering-II
- Microprocessors and Microcontrollers
- Industrial Instrumentation-II
- Computer Controlled Processes
- IC and VLSI Design
- Real Time and Embedded Systems
- Virtual Instrumentations

### ELECTIVE

- Neural Networks and Fuzzy Logic
- Robotics and Automation
- MEMS and Nano Technology
- Computer Control of Processes
- PC based Instrumentation
- Operating System
- Data Base Management Systems
- Wireless Communication
- Power Plant Instrumentation
- Instrumentation in Petrochemical Industry
- Design of Process Control System Components
- Bio-Medical Instrumentation
- Digital Image Processing
- Modeling and Simulation
- Process Dynamics and Control
- Adaptive Control
- Fibre Optics and Laser Instruments
- Mechatronics
- Mobile Cellular Communication
- Artificial Intelligence and Expert Systems

### LABS

- Instrumentation Laboratory
- Process Control Instrumentation Laboratory
- VLSI Laboratory

## DEPT. OF MANAGEMENT STUDIES



### PROFILE

The department of Management studies offers a 2 year M.B.A programme which is designed to cater the need of the corporate sector. It will bridge the gap between the academia and business world.



### CORE

Managerial Economics  
Business Communication  
Strategy Management  
Business Research Method  
Organizational Behavior  
Computer Application in Management  
Management Information System

# NON-ENGINEERING DEPARTMENTS

Deptt.	Faculty Strength	Ph.D		No. of Publications
		Completed	Ongoing	
Mathematics	6	2	7	39
Physics	9	5	12	66
Chemistry	7	3	16	11
HSS	7	5	29	8



**DEPTT. OF CHEMISTRY**



**DEPTT. OF PHYSICS**



**DEPTT. OF MATHEMATICS**



# CAMPUS LIFE



The fully residential institute providing accommodation to all the faculties & students is endowed with great infrastructure like Students Activities Centre (SAC), Gymnasium, auditoriums, indoor & outdoor stadiums and Central Library which are hot spots of different student activities round the year. Various active groups like Entrepreneurial cell, Aisee, ISTE, SESI, GyanSagar, NCC, NSS, SAE help students to explore their creativity. Students also plan, organize and manage various national and international level cultural & techno-management festivals enhancing their managerial abilities & solving practical challenges while working in a team.



*"I spent a fortune to book a holiday resort, I could have come here (NIT Silchar)"*  
- A Recruiter

# INDUSTRY-INSTITUTE RELATIONSHIP



**NASSCOM:** Association with NASSCOM, provides NIT Silchar a unique opportunity for an organisation and its professionals to engage and drive thought leadership. To increase the funnel of available quality students 'at entry' level, NIT Silchar introduced the NASSCOM suggested Foundation Skills in Integrated Product Development (FSIPD) to be run as an add-on program in the institution.

**C-DAC:** NIT Silchar in partnership with Centre for Development of Advanced Computing (C-DAC) for establishing the NIT Silchar (NITS) Supercomputing Centre which will be one of the most powerful machine in the North East India with x86\_64 bit based latest Intel Ivy Bridge processing and Accelerator (Intel Xeon Phi and Nvidia Kepler based Co-processing technologies) interconnected with Mellanox FDR Infiniband with RHEL OS on servers, IBM Platform Computing (Job Scheduler, Cluster Manager, Integrated Portal for Job Submission) and Intel Cluster Studio having a compute power of approximately 15 Tera Flops.



**TATA TECHNOLOGIES:** NIT Silchar's significant relationship with eminent PLM leader TATA Technology has enhanced the innovative technical environment of the institute. The students have been actively involved in managing the NPI process and collaborative engineering (PLM), and tying together information created and used throughout the extended manufacturing enterprise (ESG).

**National Instruments: Center of excellence :** NIT Silchar has collaborated with National Instruments to integrate all the technologies for problem solving, accelerated productivity, and continual innovation. As a part of this collaboration students have access to all the ground breaking National Instruments tools and a graphical programming platform that helps engineers scale from design to test and from small to large systems

**IBM:** Part of the IBM Shared University Research Project to support the NLP research augmentation for Spoken Web Project.

# RANKINGS

# DATAQUEST

Rank 2012	Rank 2011	Change	Institutes	City	Score	HR Perception	Total Score
25	50	25	Thiagarajar college of Engineering	Madurai	27.25	4.32	31.57
26	13	-13	Amity School of Engineering & Technology	Noida	30.07	1.45	31.52
27	34	7	Sir M Visvesvaraya Institute of Technology	Bengaluru	29.76	1.56	31.32
28	62	34	SJB Institute of Technology	Bengaluru	26.80	4.3	31.10
29	47	18	Bannari Amman Institute of Technology	Erode	27.68	3.23	30.91
30	37	7	BS Adur Rahman University	Chennai	28.53	2.36	30.89
31			National Institute of Science & Technology	Berhampur	27.41	3.23	30.64
32	57	25	Trident Academy of Technology	Bhubaneswar	26.88	3.32	30.20
33	31	-2	National Institute of Technology, Silchar	Silchar	26.21	3.96	30.17
34	38	4	Rungta College of Engineering & Technology	Bhilai (Chhattisgarh)	30.13		30.13
35	68	33	Government College of Engineering, Amravati	Amravati	23.90	5.99	29.89
36	49	13	Ganeshi Lal Bajaj Institute of Technology & Management	Gautambudh Nagar	29.78		29.78
37			National Institute of Technology, Hamirpur (HP)	Hamirpur	26.40	3	29.40
38			PEC University of Technology	Chandigarh	28.94		28.94
39			Laksmi Narain College of Technology, Bhopal	Bhopal	27.61		27.61
40	53	13	Panimalar Engineering College	Chennai	25.89	1.66	27.55
41	80	39	Vernana Institute of Technology	Bengaluru	21.78	5.63	27.41

# FACULTY STATISTICS

FACULTY STATISTICS (QUALIFICATION)



## CAREERS 360

A Career is a Life

### ASSAM

Institute	LOCATION	State	National
<b>IITs/NITs/IIITs</b>			
IIT-Guwahati	Guwahati	AAA	AAA
IIIT-Silchar	Silchar	AA+	AA
<b>Other Deemed Universities/Central Universities</b>			
Tezpur University	Tezpur	AA+	A
<b>State Universities/Affiliated Colleges</b>			
Assam University	Silchar	AA+	A

## collegekhabar

move with the information

- 38  NIT, Silchar  
National Institute of Technology, Silchar
- 39  DA-IICT  
DAIICT, Gandhinagar  
Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar
- 40  VIT Vellore  
VIT University Vellore
- 41  IIT, Gwalior  
Indian Institute of Information Technology, Gwalior
- 42  BESU, Shibpur  
Bengal Engineering and Science University, Shibpur
- 43  VJTI, Mumbai  
Veermata Jijabai Technological Institute (VJTI), Mumbai

FACULTY STATISTICS (EDUCATION)



## REACHING SILCHAR

FROM SOME PROMINENT CITIES OF INDIA



Located in southern Assam, Silchar is aerielly connected to all the major cities of India.



## VISITING NORTH EAST INDIA

*The alluring land of North-east India is one of the most treasured eco-friendly site of the world*

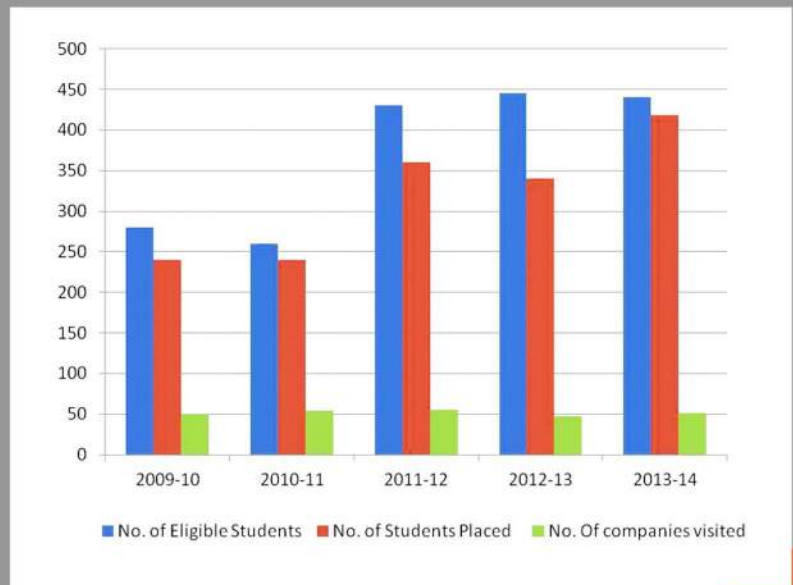
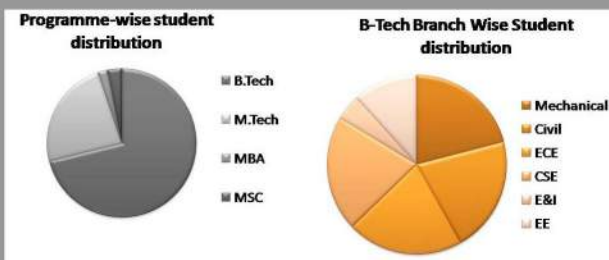




T&P Restroom

## TRAINING & PLACEMENT CELL

The T&P Cell not only acts as a facilitator for training and placement but also works towards overall development of the students. It works under the guidance of the Training and Placement Officer in consultation with FIC. It primarily works as a liaison between industry and institute..



## FACILITIES

- State of the art guest house with A/C rooms.
- Auditorium for pre-placement talks and seminars.
- Fully furnished group discussion and interview rooms.
- Fully computerized office
- Internet connected computer lab devoted to training and placement
- Student coordinators for any kind of assistance during visit
- Computer lab with 100 systems interconnected by LAN and high speed internet for online tests.

# PLACEMENT PROCEDURE

1

Interested companies contact NIT Silchar Training and Placement Cell through e-mail , [tnp.nits@gmail.com](mailto:tnp.nits@gmail.com)



2

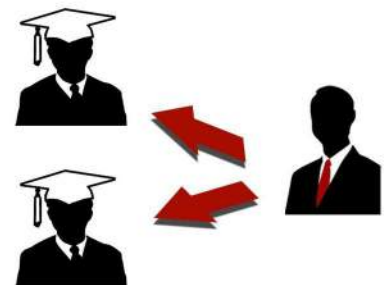
Training and Placement Cell will send a Job Notification Form (JNF) alongwith formal invitation and relevant information by e-mail.

Placement office allot slots based on JNF and availability.



3

After allotment of date, the company visits the campus and conduct various stages of placement.



4

After the completion of selection procedure the company is required to announce the final list of selected students on the day itself.



# OUR ESTEEMED RECRUITERS :





Reliable solutions





## PLACEMENT TEAM 2015



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