Faculty of Science \& Technology
The ICFAI University, Dehradun

## PLACEMENT <br> Brochure 201]



## VISION

The Faculty of Science and Technology (FST) a constituent of the ICFAI University, Dehradun is committed to develop science and technology professionals with a strong sense of leadership, who are capable of adding value to scientific and technological developments and thereby providing critical technological solutions in a complex global environment.

We are envisioned to develop a new cadre of science \& technology professionals who would not only command high level of domain proficiency but also have the ability to integrate activities for developing scientific and technological solutions and work standards.

Our vision of science \& technology and engineering education at FST is based on innovative learning methodologies, consistent improvement in input delivery through state-of-the-art pedagogic tools, cultivation of practical skills and an unwavering commitment to academic quality. We have created the courses, which are enriching and challenging by their diversity, to help students learn to relate and function in new ways.

The essence of our vision is deep-rooted with a sense of ethics and social responsibility.

Our Vision : "Merit with Ethics"

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## The ICFAI University Dehradun



The ICFAI University, Dehradun (referred to hereafter as the University) was established in 2003 under the ICFAI University Act 2003. The University has been approved by the University Grants Commission, under Section 2(f) of the UGC Act, 1956.
The University believes in creating and disseminating knowledge and skills in core and frontier areas through innovative educational programs, research, consulting and publishing, and developing a new cadre of citizens with a high level of competence and deep sense of ethics and commitment to the code of professional conduct.

The University is functioning under the patronage of His Excellency, the Governor of Uttarakhand as its Visitor and is administered by a Board of Governors headed by the Chancellor. The Board of Management is headed by the Vice-Chancellor. All academic matters are deliberated upon by the Academic Council.

The University campus at Selaqui near Dehradun, is a landscaped and lush green campus spread over 25 acres of land. Permission of the Government has been sought to acquire additional 45 acres of land for future expansion. It has well-equipped physical and academic infrastructure with workshops, laboratories, computer labs and library and provides a congenial environment for education and learning. The University has no study centers outside its authorized jurisdiction.

The University offers Bachelor's, Master's, and Doctoral Programs in management, science and technology, education, law and other areas.
The University is a member of the Association of Commonwealth Universities, London, the Association of Indian Universities, New Delhi and the Federation of Universities, India.

## Academic Networking

The ICFAI University has collaborative arrangements with the appropriate departments of several international academic institutions. These include:

- McCallum Graduate School of Business, Bentley University, Waltham, Massachusetts, USA
- Martin J. Whitman School of Management, Syracuse University, Syracuse, NY, USA.
- Euromed Marseille Ecole de Management, France
- Graduate School of Business, University of Nancy, France
- University of Johannesburg, South Africa
- Group ESC Chambering Business School, France
- College of Business Administration, The University of Toledo, Ohio, USA
- International University of Monaco, Monaco
- St. Petersburg University of Aerospace Instrumentation, Russia

The areas of collaboration include:

- Joint research and training programs
- Faculty and student exchange
- Joint proposals for external funding
- Joint sponsorship of conferences
- Joint publications
- Exchange of materials, articles, and other publications
- Development of information exchange and training in the management field
- Exchange of faculty, administrative personnel, and students
- Joint organization of seminars, conferences, symposia, and workshops.
- Development of short-term academic programs and joint flexible educational projects.



# The Faculty of Science and Technology 

The Faculty of Science and Technology (FST), a constituent of the ICFAI University, Dehradun was set up to provide quality education and training in the fields of science and technology.

## Body of Knowledge

FST integrates into its learning system an innovative and emerging body of knowledge. The following are its highlights:

Cutting-edge course curriculum capturing the contemporary and effective pedagogic methods, with emphasis on both fundamentals and applications.
Encouraging students to not only articulate science and technology needs but also provide appropriate solutions.

Developing appreciation for synthesized multidisciplinary learning by way of internships, measurement techniques, workshop practices and other group learning assignments.

## FST in Rankings



Faculty of Science \& Technology, ICFAI University has earned the following rankings in 2009-10:

- 13th best private engineering college of India: EFY May 2010 Issue
- "AA" Grade engineering college: Outlook- Careers360 survey June 2010 Issue. http://www.careers360.com/news/4322-best-engineering-colleges-in-uttarakhand
- Ranked No. 1 Engineering institute in Uttarakhand : CSR-GHRDC Survey August 2010 Issue. www.ghrdc.org/enggsurvey.html
- 73rd best engineering institute of India: CSR-GHRDC Survey August 2010 Issue. www.ghrdc.org/enggsurvey.html
- 18th best engineering institute in India in terms of faculty quality: CSR-GHRDC Survey August 2010 Issue. www.ghrdc.org/enggsurvey.html
- 17th best private engineering institute of India: collegekhabar.com www.collegekhabar.com/ranking-2010.php
- 35th best engineering institute of India: National Votings survey done by collegekhabar.com www.collegekhabar.com/ranking-2010.php


## The B.Tech Program



The B.Tech. Program is a well structured four year eight-semester, full-time campus-based engineering program.
The B.Tech. Program is offered by the Faculty of Science and Technology of the ICFAI University, Dehradun. It is located in the University premises of Dehradun. The B.Tech Program provides cutting edge education to equip students with comprehensive and critical understanding of the respective fields of study.

The following disciplines are offered by FST at Dehradun:

- Biotechnology
- Civil Engineering
- Computer Science \& Engineering
- Electronics \& Communications Engineering
- Mechanical Engineering


## Admission Process

All admissions into B.Tech. Program of FST are strictly based on merit.
Students are admitted through ATIT, AIEEE \& State Level Engineering Tests.


Four year Integrated B.Tech Program

## Program Structure

The B.Tech. Program requires students to undergo during their first two years, a number of broad based foundation courses in Core Science, Core Mathematics Computer Programming, Engineering Science and Technical Art areas [See Annex 1(a) \& Annex 1(b)]. These are followed by Analysis and Application-oriented courses that are also required for all the students.

Higher level compulsory Specialized Discipline Courses (see Annex-II) are given during the third year as a super structure over the strong foundation laid during the first two years. The students are also required to complete at least six Elective Courses, to be chosen by them in order to satisfy their individual ambitions. The elective courses may be chosen from across the courses offered, including the Specialized Discipline Courses other than Compulsory in their respective disciplines (see Annex-III).

In addition, the Internship Program Courses having total duration of nine months have also been integrated into the curriculum of each B.Tech degree program. These courses are conducted at industrial sites under supervision of the faculty.

## Annexure - I (a)

## Structure of Integrated Degree Programs

| First Year | Semester-II |  |
| :--- | :---: | :---: |
| Semester-I | Core Math |  |
| Core Math | Core Science |  |
| Core Science | TAC |  |
| TAC |  | AOC |
|  |  | ESC |

Legend: AOC - Application Oriented Courses; ESC - Engineering Science Courses; HSC - Humanities \& Social Science Courses; TAC - Technical Art Courses; SDC - Specialized Discipline Courses; IP - Internship Program.

## Annexure - I (b)

## B.Tech Program General Structure Semester-wise pattern for the B.Tech progam

| Year | First Semester | Second Semester |
| :---: | :---: | :---: |
| I | General Biology | Probability \& Statistics |
|  | Chemistry I | Chemistry II |
|  | Thermodynamics | Mathematics II |
|  | Mathematics I | Physics II |
|  | Physics I | Workshop Practice |
|  | Engineering Graphics | Computer Programming I |
| SUMMER TERM INTERNSHIP PROGRAM I |  |  |
| II | Computer Programming II | Principles of Management |
|  | Principles of Economics | HS Elective |
|  | Technical Report Writing | Structure \& Properties of Materials |
|  | Electrical Sciences I | Electrical Sciences II |
|  | Mathematics III | Measurement Techniques II |
|  | Measurement Techniques I | Biological Chemistry (BT) |
|  | Microbiology (BT) | Signals and Systems (EC) |
|  | Mechanics of Solids (CE, CS, EC, ME) | Microprocessor Programming and Interfacing(CS, EC) |
|  |  | Applied Thermodynamics (ME) |
|  |  | Geodesy (CE) |
|  |  | Fluid Mechanics (CE) |
|  |  | Discrete Structures for |
|  |  | Computer Science (CS) |
|  |  | Transport Phenomena - I (ME) |
|  |  | Elective**(BT) |
| SUMMER TERM |  | NSHIP PROGRAM II |
| III | Optimization | Operations Research |
|  | Control Systems (CE, CS, EC, ME) | Numerical Analysis |
|  | Instrumental Methods of Analysis(BT) | Specialized Discipline Course (4)* |
|  | Specialized Discipline Course(4)* |  |
| IV | 6 Electives ** | Internship Program III OR Thesis \& Seminar |

* These are Specialized Discipline Courses compulsory for each branch, indicated in the following pages.
** These may be chosen out of the courses offered across the disciplines including the higher level courses in the student's own discipline.
BT - Biotechnology; CE - Civil Engineering; CS - Computer Science and Engineering; EC - Electronics and Communication Engineering; ME - Mechanical Engineering


## Annexure - II

## Specialized Discipline Courses <br> (Compulsory)

| Biotechnology |
| :--- |
| Genetics |
| General Physiology |
| Biophysics |
| Cell and Tissue Culture Technology |
| Environmental Biotechnology |
| Development Biology |
| Plant Molecular Biology |
| Recombinant DNA Technology |
| Civil Engineering |
| Geotechnical Engineering |
| Construction Planning and Project Management |
| Hydraulics and Hydraulic Mechanics |
| Water Supply and Waste Water Management |
| Design of Steel Structures |
| Design of Concrete Structures |
| Analysis of Structures |
| Transportation Engineering |
| Computer Science \& Engineering |
| Data Structures and Algorithms |
| Operating Systems |
| Digital Electronics \& Computer Organization |
| Advanced Computer Organization |
| Data Base Systems |
| Programming Languages and Compiler |
| Construction |
| Computer Networks |
| Theory of Computation |


| Electronics \& Communication Engineering |
| :--- |
| Microelectronic Circuits |
| Satellite Communication |
| Digital Signal Processing |
| Digital Electronics \& Computer Organization |
| E M Fields \& Waves |
| RF \& Microwave Engineering |
| Analog Electronics |
| Communication Systems |
| Mechanical Engineering |
| Design of Machine Elements |
| Transport Phenomena II |
| Production Techniques |
| Advanced Mechanics of Solids \& Kinematics |
| Power Plant Engineering |
| Prime Movers and Fluid Machines |
| Computer Aided Design |
| Dynamics of Machines \& Vibrations |
| This is a tentative list of courses and the University <br> reserves the rights to modify, revise, change, <br> delete, or add course contents from time to time <br> depending on the developments in the relevant <br> areas of study. |

## Annexure - III

## Specialized Discipline Courses

## Other than compulsory (Electives)

| Biotechnology |
| :--- |
| Introduction to Bioinformatics |
| Enzymology |
| Genetic Engineering |
| Biochemical Engineering |
| Genetics and Molecular Biology |
| Ecology |
| Reproductive Physiology |
| Bioprocess Technology |
| Biotechnology Laboratory |
| Immunology |
| Population Genetics |
| Special Projects |
| Computer Science \& Engineering |
| Computer Graphics |
| Graphical User Interfaces |
| Parallel Computing |
| Internetworking Technology |
| Artificial Intelligence |
| Computer Aided Design |
| Robotics |
| Software Engineering |
| Object Oriented Programming |
| Microcontrollers and Applications |
| Image Processing |
| Fibre Optics and Optoelectronics |
| Real Time Systems |
| Introduction to Bioinformatics |
| Digital Systems |
| Higher Level Computer Languages |
| Structured Query Language and Database |
| Applications |
| Power Electronics Applications and Drives |
| Analog \& Digital VLSI Design |
| Multimedia Computing |
| Special Projects |
| Telecom Switching Systems and Network |
| Mobile and Personal Communication |
| Image Processing |

Microcontrollers \& Applications
Computer Graphics
Robotics
Operating Systems
Data Structures and Algorithms
Data Base Systems
Computer Networks
Mask Design
Parallel Computing
Artificial Intelligence
Computer Aided Design
Higher Level Computer Languages
Special Projects
Civil Engineering
Finite Element Analysis
Disaster Management
Water Resources Development
Environmental Engineering
Design of Prestressed Concrete Structures
Computer Aided Design in Civil Engineering
Water Power Engineering
Special Project
Earthquake Engineering
Geotechnical Earthquake Engineering
Design of Bridge Structure
Geographical Information System
Structure Dynamics
Concrete Technology
Stiffness and Flexibility Method of Analysis
Irrigation Engineering
Design of Masonry and Timber Structures
Mechanical Engineering
Production Planning \& Control
Computer Aided Manufacturing
Automotive Vehicles
Advances in Materials Science
Mechanical Equipment Design
Composite Materials \& Design
Refrigeration and Airconditioning
Precision Engineering
Robotics
Quality Control, Assurance \& Reliability
Special Projects

## Education Methodology



## Educational Process

FST has adopted semester system and internal evaluation right since its inception. It has structured its degree programs in consultation with leading educational institutions and industries. Each academic session consists of two semesters and a summer term. The First Semester runs from August to December and the Second Semester from January to May. Summer Term is run during summer vacation, mainly for conducting the Internship Program courses.

Student Registration Process: At the beginning of every semester, each student has to go through a process, known as registration, to work out his/her program for the semester. No student is permitted to attend classes without completing the appropriate registration procedure.
Comprehensive Time Table: One of the objectives of the registration process is to name the courses at the beginning of the semester after allowing for the students' options and working out the permissible details regarding the flexibilities with in the limits prescribed by rules and the Time Table for the semester.

Students make their own Time Table: Each student thus makes his/her own Time Table on the first day of the semester during the registration process and starts attending the classes from the next day.

Time Table also includes entire schedule of evaluation for the semester. The Academic Calendar is also announced in advance and adhered throughout the semester.

## Academic Flexibilities

Elective courses: Students choose a minimum of six elective courses on their own, from across all the courses offered by the FST. Further, over and above the prescribed number of electives, students can also take a maximum number of four Optional Electives on their own.

Project courses: There are various kinds of project type courses offered, e.g., Study Oriented, Lab-Oriented, Computer Oriented, etc. students may take these as elective courses and work under the supervision of faculty member in the chosen fields.
Departure from normal pace: Students may be allowed to make a plan to graduate earlier or later than the time visualized in the normal situation. However, students going slow must ensure that they remain outside the provisions of the sanctions imposed by the Academic Counseling Committee.

Repetition of Courses: Students, who are yet to complete the program, are permitted to repeat a course, at their own option, with a view to improving their grades, provided the course is offered during the semester.
Transfer: The structure allows transfer of students from one program to the other, as well as, from one center to the other at appropriate time.
5-year Integrated B.Tech-M.Tech / MS and B.Tech-MBA Programs (under planning): Students may exercise, at the end of their first year, an option to pursue the 5 year integrated program, so as to simultaneously complete their B.Tech and Master Level Programs in five years.

## Internship Program

For the development of institutionalized linkages with society and industry, unique Internship Programs are offered.
The Internship Programs ensure that linkages are developed and sustained with industrial and other organizations outside the world of academia. They serve as a formal method within the curriculum, to bring the realities of the world of work into the educational process.
The Programs require that the students undergo the rigors of the professional world in form as well as in substance, and provide them with an opportunity to apply their classroom knowledge to live situations. They differ from "Practical Training" as well as "Sandwich Schemes" in that the entire student education during the Internship Programs is supervised by faculty and forms a part of the students' total credits toward their degree.
There are three Internship Programs: IP-I and IP-II, each of two months' duration, implemented during the summers following the first and second year of study, and IP-III, of five and a half months' duration, implemented in either the VII Semester or the VIII Semester, during the final year.

## Annexure - IV <br> Organizations

Where the students have undergone Internship Program

| Advance Technology | Garware Polyester | K | Pathani Samanta Planetarium |
| :---: | :---: | :---: | :---: |
| Airport Authority of India | GCL INDIA | KPMG | PCS Industries |
| All India Radio | Genus | Kukars Infotech | PETE Transformers |
| Amara Raja Batteries | Geological Survey of India | Lupin Pharmaceuticals | Pokarna Granites |
| Apollo Hospitals | Geomin | Magna Infotech | Pokarna Granites |
| APSRTC | Global Hospitals | Mangalore Refinery and Petro | g Transmis |
| BAeHAL Software | Godrej | Mascon | emium Energy Transmis |
| Bangalore Stock Exchange | Grasim | MAT Software Solutions | Pro Laboratories |
| BCS Innovations | GRIDCO | Matisse Networks | Quality Care India |
| BEA Systems | Guhring India | Matrix Laboratories | Rajashree Cements |
| Bharat Heavy Electricals | HBL Nife Power Systems | MedPlus PathLabs | Rajasthan Electronics |
| Bharat Sanchar Nigam | Hindustan Coca-Cola Beverages | Meltronix | Reg. Med. Research Centre |
| Bharti Airtel | Hindustan Machine Tools | Microsol Power | ance Capital Assets |
| Bhilai Engg. Corporation | Hyderabad Engg. Indus. |  | Sanghi Infotech |
| Biogenix | i2 Solutions |  | Sara Services \& Engineers |
| Biological E | IBS Software Services |  |  |
| Birla Copper | ICICI Bank |  |  |
| Blue Star | ICT |  | STPI |
| Byrraju Foundation | IICT | National Collatera Mgmt Ser. | Som Phytopharma |
| CARE Hospitals | iMotions - Software Technology |  | South Central Railway |
| Catalytic Software | IICT |  | Sree Power Control Systems |
| CCMB | IIRS |  | Sri Biotech |
| CBRI | IndusEdge Innovations | al Physical Laboratory | Sri Krishna Pharmaceuticals |
| CPRI | Intecons Computers |  | SRP Enviro Systems |
| Centre for Design of Stones | ISP (Hong Kong) | chnologies | Sterling Agro Product Processing |
| Centre for Environment Science | Ispat Industries | NBC Bearia-Siemens | SunFlag Iron \& Steel Co. |
| CISTEMS-Metacube Software | J. Infotech |  | SURA Technologies |
| Dabur Research Foundation | Jayaswal Neco |  | Tata Teleservices |
| Danlaw Technologies | Jet Airways | Orissa Drugs \& Chemicals | Taurus Chemicals |
| Directorate of Geology | Jhagadia Copper | Orissa Hydel Power Corpora | The Hindu |
| Dr. Reddy's Labs | JK Seeds |  | Vaiseshika Electronics |
| Endeavour Software | Jyothi Dairy |  | Vama Industries |
| Essar Steel | K. K. Rao Engg. Works |  | Varshha Bioscience |
| ETA Engineering | Kanbay |  | Victor Computers |
| Everest Paper Products | Karnataka Soaps \& Detergents |  | Videocon International |
| EVINZ Drugs | Kaveri Agri Care | Centre | VivoBio |
| Farakka Nuclear Fuel Complex | KB Power Care | Pacific Electronics | VOITH Turbo |
| Fun Cinemas | Kedia Electricals | Packetware (India) | Windlas Biotech |
| Future Tech Instruments | Key Business Solutions | ichha Hydroelectric Powe | Yaaganti Seeds |
| Galaxy Laboratories | Kingsy Pharmaceuticals | Plant | Yashoda Hospitals |

## Higher Degree Programs and Research

M.Tech: FST has already designed its M.Tech. Degree Programs in a number of areas and would be launching the same shortly.
Ph.D: The Doctoral Program is already in place and a number of internal candidates are pursuing the same.

Research Initiatives : The University nurtures a very vibrant research culture particularly in cross disciplinary areas
focusing on problems associated with basic and applied sciences and technologies. The ICFAI University gives special importance to research publications and therefore it publishes several research journals of its own, attracting high quality research papers from a India and abroad. A good number of these Journals bear ISSN/ISBN codes and are indexed by international authorizations like SCOBUS.

The journals being published by FST are the following:

- The IUP Journal of Architecture
- The IUP Journal of Chemical Engineering
- The IUP Journal of Chemistry
- The IUP Journal of Computational Mathematics
- The IUP Journal of Computer Sciences
- The IUP Journal of Earth Sciences
- The IUP Journal of Electrical and Electronics Engineering
- The IUP Journal of Environmental Sciences
- The IUP Journal of Genetics \& Evolution
- The IUP Journal of Information Technology
- The IUP Journal of Mechanical Engineering
- The IUP Journal of Physics
- The IUP Journal of Science and Technology
- The IUP Journal of Soft Skills
- The IUP Journal of Soil and Water Sciences
- The IUP Journal of Structural Engineering
- The IUP Journal of Systems Management
- The IUP Journal of Telecommunications



## Resources and Facilities

## Faculty

FST has assembled a competent and committed faculty team. FST plays a significant role in ensuring quality education through interactive teaching, continuous multiple criteria evaluation and feedback from students. The faculty bring their extensive knowledge, professional experience and advanced education to their

task at FST. The faculty is drawn from the industry, leading institutions, practicing professionals and academicians to enhance quality of academic delivery at FST. In 2009 and 2010, faculty members have been recruited through campus recruitment process in almost all IIT's. A list of the FST faculty is given in Annexure-V.

## Library Facilities

FST has well-stocked library containing reference material, and Indian and international books and magazines. Subscriptions to industry information databases ensure that extensive research resources and publications with search facilities are available to students and faculty. In addition, the library contains directories, industry reports and statistical compilations that provide timely and concise information for project works. The library facilities are open to all students and faculty members and are continuously updated with the latest books and journals.

## Computer Facilities

The latest hardware and software infrastructure are in place to cater to the computing needs of all the students and the training requirements of computer science related programs. The institution is equipped with powerful servers and multiple terminals with multiple operating systems enabling a client-server environment. The students are guided by well experienced faculty to handle the computer labs. Broad band internet is available to support research activities.




## Laboratory Facilities

A central workshop with various machine tools and equipment including CNC machine supports hands-on training in various areas of workshop practices.
Laboratories, such as Physics, Chemistry, Biology, Digital Electronics, Microprocessors, Electrical
and Electronics Engineering and Electronics, Microprocessors, Electrical
and Electronics Engineering and Instrumentation, provide facilities for the students of all disciplines to acquire skills for the measurement of various parameters in Science and Technology.
Biotechnology laboratories have facilities such as Laminar flow setup, UV Visible Spectrophotometer,

AAS Spectrophotometer, HPLC - Gas Chromatography, FTIRSpectrophotometer, Electrophoresis, Fermenter, Refrigerated Centrifuge and other apparatus with appropriate spaces earmarked for testing, culturing and inoculation, etc.
Electrical \& Electronics department has laboratories in the areas of Electrical Machines, Power Electronics, Microprocessors, RF \& Microwave Engineering, VLSI CAD Lab, Communication Systems, Digital Electronics, Electronic Devices and Circuits etc. The RF \& Microwave engineering laboratory is equipped to make measurements of power, frequency, SWR, return loss and insertion loss etc. VLSI -CAD lab is a state -of- the art laboratory and is equipped with the latest versions of EDA software tools both in the front end (FPGA advantage and XILinx ISE Foundation series) and the back end (Tanner Tools Pro Complete package).
Students also learn AutoCAD package and Programming on CNC machines as part of the course work. Further, in collaboration with like minded industries, FST likes to set up research centers and take an active part in research activities that benefit industries.

## Annexure - V

## Faculty Panel

## Biotechnology

Prof. Abhishek Bagchi, M.Tech
Prof. Chandrakala Gunturu, M.Tech
Prof. Meera Narasimha, Ph.D
Prof. Rahul, Ph.D
Prof. Sharad Pandey, Ph.D
Prof. Shashikumar K C, Ph.D
Prof. Sohel Dalal , Ph.D

## Chemistry

Prof. Charu Agarwal, Ph.D
Prof. Damodar Reddy, Ph.D
Prof. Gouri Sankhar Brahma, Ph.D
Prof. Jitendra Kumar Gupta, Ph.D
Prof. Renu Rani , Ph.D
Prof. Sushma Viladkar, Ph.D
Prof. T.K.Mandal, Ph.D

## Civil Engineering

Prof. Brij Kishor Pandey, M.Tech
Prof. Chandra Pal Gautam, M.Tech
Prof. P Venkata Siva Prasad, M.Tech
Prof. Ponnala Koteshwar, ME
Prof. Subhajit Mondal, M.Tech
Prof. Vishwajeet Pratap Singh, ME
Computer Science \& Engineering
Prof. Adineth Mahanama V, ME
Prof. Anand Kumar, M.Tech
Prof. Arvind Kumar, M.Tech
Prof. Avinash Jonnalagadda, M.Tech
Prof. Bineet Kumar Joshi, M.Tech

Prof. Devendra Bhavsar, M.Tech
Prof. Devendra Singh, M.Tech
Prof. Hukum Singh Rana, M.Tech
Prof. Jinesh Kr Singh, M.Tech
Prof. Kishore Kumar Y, M.Tech
Prof. Laxman Singh Sayana, M.Tech
Prof. Madhulika Sharma, M.Tech
Prof. Mahesh Kumar, M.Tech
Prof. Manohar M, M. Tech
Prof. Nishant Mathur, ME
Prof. Ravikant Kumar Nirala, M.Tech
Prof. S. P. Ravi Kumar, M.Tech
Prof. Sanjay Kumar, ME
Prof. Sanjeev Kumar , M.Tech
Prof. Sharath Babu S, M.Sc (Engg)
Prof. Sri Rama Chandra Murty Akella, Ph.D
Electronics \& Communication Engineering
Prof. A Sai Prasad, M.Tech
Prof. Aditya Sahu, M.Tech
Prof. Anilesh, M.Tech
Prof. Arun Kumar Saini, M.Tech
Prof. Avinash Jonnalagadda, M.Tech
Prof. Chandra Sekhar, M.Tech
Prof. Deepak Kumar Syal, M.Tech
Prof. G Naveen Kumar, M.Tech
Prof. G Rammohan, M.Tech
Prof. G Swapna, M.Tech
Prof. Jitendra Kaushal Srivastava, Ph.D
Prof. Karthik Vagicharla, M.Tech

Prof. Kothapalli Ramesh, M.Tech
Prof. M Rajarao, M.Tech
Prof. Manish Kr Jaiswal, MS
Prof. Mohammad Rashid Ansari, M.Tech
Prof. Niraj Kumar, M.Tech
Prof. Niranjana Rao, M.Tech
Prof. P Varalakshmi,
Prof. Pawan Mishra, M.Tech
Prof. Pushpendra Kumar, M.Tech
Prof. R.C.Ramola, Ph.D
Prof. Raj Gaurav Mishra, MS
Prof. Raj Kumar Chaurasia, M.Tech
Prof. Ramesh Neelam, M.Tech
Prof. Rana Mukherji, M.Tech
Prof. Ranjan Mishra, M.Tech
Prof. Ravindra Meena, M.Tech
Prof. Sachin Kumar, M.Tech
Prof. Sanjay Kumar Sahu, M.Tech
Prof. Shakeel Hashmi S, ME
Prof. Shashi Kumar D, M.Tech
Prof. Siva Geddam, M.Tech
Prof. Sreenivasulu Madduluri, M.Tech
Prof. Surjit Singh, M.Tech
Prof. Tanneru Kumaraswamy, M.Tech
Prof. Vadhiraj K P P , M.Tech
Prof. Vijay Babu Didla, M.Tech
Prof. Vinod Kumar K., M.Tech
Prof. Vipin Patait, M.Tech
Prof. Virendra Kumar, ME
Prof. Vishal Sharma, M.Tech

## English

Prof. Malabika Sen, MA-English
Prof. Tripti Thapliyal, Ph.D

## Mathematics

Prof. Anuj Kumar, Ph.D
Prof. Ashish Kumar Pasbola, Ph.D
Prof. Lokesh Kumar Joshi, Ph.D
Prof. Mukesh Bijalwan, Ph.D
Prof. Rishi Asthana, Ph.D
Prof. Shripad Markande, Ph.D
Prof. Sudeepto Bhattacharya, Ph.D
Prof. Umesh Gupta, Ph.D
Prof. Vineet Kumar Srivastava, M.Tech

## Mechanical Engineering

Prof. Chandrashekhar, M.Tech
Prof. Dilpreet Singh, ME
Prof. Douzi Imran Khan, M.Tech
Prof. G F Chakravarthi, M.Tech
Prof. Ganpat Rai, ME
Prof. Gummadi Nagaraju, M.Tech
Prof. I Naveen Kumar, M.Tech
Prof. J Varun Kumar, M.Tech
Prof. Rajesh Kumar Dohare, M.Tech
Prof. Sandeep Bhaskar, M.Tech
Prof. T. Govardhan, ME
Prof. Umesh Kumar Mishra, M.Tech

## Physics

Prof. A K Dimri, M.Tech
Prof. A.V. Mohan Rao, Ph.D
Prof. Archana Dhyani, Ph.D
Prof. Kanad Ray, Ph.D
Prof. Prashant Shukla, Ph.D
Prof. S.K.Joshi , Ph.D

## Social Science

Prof. Мопи R. Gupta , Ph.D
Prof. Neeraj Aswal, Ph.D

## Co-curricular activities



Continuous efforts are made to strike an appropriate balance between the students' classroom activities and out-of-classroom activities. They work hard in class, but also channel their energies into diverse activities such as organizing seminars, and guest lectures on contemporary issues, participating in inter-college competitions, etc. They are also encouraged to form informal groups and clubs based on their areas of interest, share information, and exchange ideas. The students also organize annual meets, which offer them an opportunity to interact closely with other colleges.

Active student involvement is encouraged in activities like:

- Group Discussions
- Games
- Debates
- Sports Meets
- Elocution
- Quizzes
- Seminars
- Sessions
- Skits \& Plays
- Cultural Meets
- Publications/Magazines

Such activities help students to:

- Improve their communication skills
- Develop the right kind of attitudes
- Enhance their leadership qualities and abilities
- Work in high pressure environments
- Learn to manage stress
- Emerge as team players
- Develop group skills
- Improve creativity
- Become result-oriented.


## Alumni Society

The University has established " ICFAI University Dehradun Alumni Society (IUDAS)". All students of the Faculty of Science and Technology seek membership in the society.
The provisional membership in the alumni body entitles the students to participate in seminars, workshops, conferences and local chapter activities organized by the society. An Alumni meet 'Constantum 2010' was organized by the Faculty of Science and Technology. The alumni participated in various activities during the function and shared their experiences.


## Student Life at FST

The library, laboratory and the computer centre are open till late hours in the night for the benefit of the students.
Students come from all over the country and various regional festivals are celebrated in which all the students participate. Students have also formed various activity clubs, such as 'Sargam' (music club), Rebellious Resurrection (rock group), Aakriti (art club), Future (academic club) and so on to pursue their creative interests.
The students have organized various all India level activities, viz., 'Icthalon' (sports festival, 'Insolito' (cultural festival) and 'Icknighted' (academic festival).These festivals are organized entirely by the students and have met with a good response from all over the country. Other activities like Saraswati Pooja, Antarnaad, Tree Plantation, Blood donation camp, sports meet, Rendition were also organized in the campus. University conducted a Robotics workshop in collaboration with IIT Guwahati and Robosapiens India.

Students also participated in all India level competitions and festivals conducted by prominent educational institutions and other organizations across the country, such as, International VLSI Design and test Symposium (Bangalore), ACM Asia ICPC contests held at IIT Kanpur, Jadavpur University and Trivandrum, Microsoft Academy Day at JNTU Hyderabad, Oasis (BITS, Pilani), 'Mood Indigo' (IIT Mumbai), 'Felicity' (IIIT, Hyderabad). THOMSO (IIT-Roorkee), Robotics Workshop(MMMEC, Gorakhpur)
Students also bring out an in-house magazine 'Antas' to show-case their creative writing abilities and a newsletter, 'News and Views' every semester.

Students of FST were selected and invited for the finals of the IEEE Computer Society's International Design Competition held at Washington DC USA in July 2006. Their entire cost of participation, including to $\&$ fro travel to USA was borne by the IEEE.

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## Awards and Achievements

1. Dr. Tapan Kumar Mandal conducted research work in the Institute of Nanotechnology, Karlsruhe, Germany from 3rd May to 31 July, 2010. The title of his research topic is "Synthesis and Characterization of Metal Fluoride Based Nanocomposite Novel Cathode Materials for the Improved Lithium Ion Battery Performance."
2. Dr. Sharad Pandey and Dr. Vikas Pundir presented their research work in the Uttarakhand Science Congress and Technology UCOST, Government of Uttarakhand. Dr. Sharad Pandey received Young Scientist Award for the year 2009. The same award was received by Dr. Rahul Kumar for the year 2008.
3. Following students did their thesis work in the University of Western Australia in the year 2009.
i) Sujata Dhar (Biotechnology)
ii) Rahul Bose (Computer Science)
iii) K. Satyaswati (Biotechnology)
iv) Pratishtha Chatterjee (Biotechnology)
4. Following students did their thesis work in the University of Western Australia in the year 2008.
i) Md. Shoeb Akhtar (Biotechnology)
ii) Monalisa Padhee (Computer Science)
iii) Kurchi Bhattacharya (Biotechnology)

## Invited Talks, Seminars and Workshops

- ICFAI University launched tree plantation drive at its campus on 7th October 2009. Dr RBS Rawat, Principal Chief Conservator of Forests, Uttarakhand, was the Chief Guest. Shri B. K. Gangta, DFO was also present on the occasion. The Chief Guest gave a talk to the students and the faculty of the University on "Why we should have more Green Cover".

- A workshop on meditation and yoga for the students and the faculty members was organized at the University campus on 17th November 2009 under the aegis of Dhyan Foundation of Yogi Ashwini.
- Swami Jitatmananda, an internationally renowned scientist and monk of Ramkrishna Mission delivered a talk on "Science and Spirituality" on 24th November 2009. He emphasized on the unity and fusion of science and spirituality.
- Dr. Hans Raj P Joshi, Professor, Department of Mathematics, York University, Toronto delivered a lecture on "Fascinating Mathematical Concepts in Vedic Scripture" on $9^{\text {th }}$ March, 2010.
- Mr. Akhilesh C Srivastava, Vice President (Products), Yantra Software, delivered a talk on "Introduction to Human Computer Interaction (HCI) Technologies" on $31^{\text {st }}$ March, 2010.
- A three day workshop on VLSI design was organized at the university campus from 22-24 May, 2010 in association with the Central Electronics and Engineering Research Institute, Pilani and the Corel Technology, Banglore. Scientists from Pilani Dr. Raj Singh and Dr. S. C. Bose delivered the talks.
- Professor S. K. Verma from BITS Pilani delivered a talk on "Biosensors Development for Environmental Monitoring" on 12th August 2010.



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## Placements \& Higher Studies



Utmost importance is given to placementrelated activities to ensure that all successful graduates receive suitable placements. In this context, the Faculty of Science and Technology is uniquely placed to leverage on an industry network, developed over a period of time.

Over the past several years, a strong placement network has been developed with bluechip companies in the manufacturing, engineering, financial services, information technology, and other sectors. A number of national and multinational companies have recruited the students through campus recruitment. This has been achieved through constant interaction with the industry by way of seminars, internship courses conducted in industries, research projects, and on and off-campus initiatives.

As a part of its placement efforts, placement teams visit potential employers and consultants and apprise them of the level of knowledge and practical application skills acquired by the graduates in their respective areas of specialization. The profiles of the students seeking placement
assistance are made available to the prospective employers. Placement meets and personality development workshops are organized as a part of the placement program. A representative list of major companies that have recruited FST students is given in Annexure-VI.

All the students are provided guidance in career planning as they progress to higher levels of the program. FST believes that the entire placement exercise is a joint effort between FST and the students. While FST provides guidance, support and a wide network with potential employers, the students have the responsibility to put in the maximum possible efforts to obtain suitable placements. FST also encourages and supports the efforts of the students wanting to pursue higher studies in Science, Technology and Management subjects. A number of Universities abroad and Institutes of Higher Learning in India have been offering admissions to the meritorious students of FST. A representative list of such universities is given in AnnexureVII.

## Annexure - VI

## National/Multi-National Companies which have recruited FST students

| Accenture Services |
| :--- |
| ADP |
| Altisource |
| Apollo Tyres |
| Avestagene |
| Aztec |
| BARC |
| BEA Systems |
| Bharati Axa |
| Biocon |
| Cell Works |
| CISCO Systems |
| Cognizant Technologies |
| Convergys IMG |
| Cranes Software |
| Creative World |
| Crompton Greaves |
| Danlaw Technologies |
| Danlaw Technologies India |
| Durr |
| Endeavour Software |
| EnLume Technologies |
| Exilant Consulting |
| Fortuna Technologies |
| Global Hospital |
| Godrej \& Boyce |
| Google India |
| HCL Honeywell |
| HSBC Global Services |
| Hughes Telecom |
| i2 Technologies |
| IBM Global Services |
| IBS Software |
| ICICI BANK |
| ICICI Prudential |
| IFB Appliances India |
| Indo American Seeds |
| Indus Edge Software |

Infosys
Infotech
J K Seeds
Kanbay Software
Kingsly Instrumentation
L \& T Emsys
L \& T Infotech
Mahendra Satyam
Max Parivartan
Microland
Mindtree Consulting
Mindfire Solutions
Misys
Nihilent Technologies
NIIT Technologies
OSI Solutions
Reliance Communications
Reliance Life Sciences
Relegare
Robert Bosch
Rolta India
Sankhya
Sapient Technologies
Sartorius
Satyam Computers
Semantic Space
Serum Institute
Siemens Communication
Sierra Atlantic
Sonata Software
Sriram Group
SSA Global Technologies
Tata Consultancy Services
Tata Elxsi
Tata Technologies
Tesco Hindustan
Texas Instruments
Versant Technologies
Voltas India
West End Capital
Wipro Infotech
Yash Technologies

## Annexure - VI

## Universities and Institutes of Higher Learning which have admitted FST students

| Columbia University, New York |
| :---: |
| Cornell University, New York |
| Gannon University, California |
| IBS, Hyderabad |
| Illinois Institute of Technology, Chicago |
| Illinois State University, Chicago |
| University of Marynow, Maryland |
| North Carolina State University, North Carolina |
| Roosevelt University, Chicago |
| Rush University, Chicago |
| Syracuse University, New York |
| Texas A\&M University, College Station |
| University of California, Irvine |
| University of Clemson, Clemson, S. Carolina |
| University of Delaware, Newark |
| University of Florida, Gainesville |
| University of Illinois, Chicago |
| University of Kansas, Kansas City |
| University of Pittsburgh, Pennsylvania |
| University of Rochester, New York |
| University of San Jose, California |
| University of Texas, Dallas |

## MISSION

The primary mission of FST is 'Re-Engineering Leadership’ to develop science \& technology professionals with specialized skills and a sharp perception to resolve problems with heightened sense of moral and social responsibility.

To achieve the set objectives, FST seeks to develop five key characteristics of leadership embedded with technical skills.

The Overall Perspective: To provide a broader perspective to students to have a holistic approach in viewing problems and developing critical and appropriate science and technology solutions.

Analytical \& Integrative Skills: To develop in students, an analytical bent of mind and facilitate necessary professional knowledge for nurturing and developing ideas to generate critical scientific and technological solutions.

Professional Skills: To provide for proficiency and enhance competency in scientific, technical and engineering aspects for continuous innovation.

Integrity: To provide understanding and appreciation for scientific temper and professional work standards.
Ethical Leadership: To provide an understanding of leading scientific and technological revolution coupled with high degree of ethics.


## Faculty of Science \& Technology

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