

**“For the things we have to learn before doing them, we learn by doing them”
- Aristotle**

Director's Message

A sense of delight and pleasure overrides as I highlight the significant activities and milestones that our institute has witnessed, since its inception in 2007. We ventured in to the field of Design & Manufacturing pedagogy with an humble intake of 30 B.Tech students and are presently offering a gamut of programmes namely B.Tech and Dual degrees and postgraduate level M.Des programmes including doctoral research programs. IT and IT enabled Design & Manufacturing is the operational guideline of the institute and the mandate has been the driving force in all the academic and research activities that have been pursued. The entire state of art infrastructure creation has been in line with Green energy norms. The G+14 Ashwatha hostel, G+6 Academic block and Mega Mess inaugurated in 2014 demonstrates the effective utilization of precious ground earmarked for permanent campus. Skyscrapers G+14, Jasmine and Asoka hostels and G+6 Laboratory block are nearing completion, and, we are happy to inform about the marvelous infrastructure development of more than 1.2 lakh sqm, in a very short period of about 4 years. We, as an institute, believe in strong liaison with the stakeholders and a major curriculum revision drive based on academia and industry experts is in progress. The unique programmes on offer at the institute has found widespread acceptance as evinced by the demand amongst the student community. An institute excels only to the extent its alma matter flourishes, and it gives me great satisfaction to highlight that our students are associated with core design firms / pursuing higher studies at institutes of global repute. Institute faculty members undertake sponsored / funded research projects from various government / private agencies and the institute maintains a healthy publication ratio in conferences and journals of repute. The eight year timeline of the institute has witnessed major academic innovations in the form of new programmes (2007-11) and a revision / augmentation with industry relevant PG level programs (2014-15) and infrastructural growth since 2011. The adoption of 'experiential learning approach' in curriculum design and 'interactive learning principles' followed at IIITDM Kancheepuram are well appreciated by the student community and recruiting industries. Having seen the growth of the institute, during both the formative and settlement years, we are confident that with the continued support, dedication and efforts of the student, staff and faculty community, the institute would peak new heights and contribute its share to the society at large and result in 'Design & Made in India' Tags.



Prof. R. Gnanamoorthy

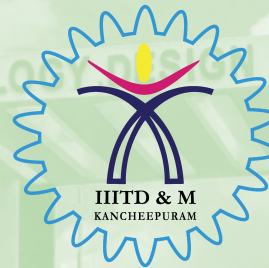
Contents

1. *About IIITDM Kancheepuram*
2. *Design Centric Engineering Education*
3. *Admission and Evaluation*
4. *Academic Programs*
5. *Computer Engineering*
6. *Electronics Engineering*
7. *Mechanical Engineering*
8. *Basic Sciences*
9. *Research*
10. *Students Life*
11. *Campus Demography*
12. *Students Demography*
13. *MoUs and Industry Interactions*
14. *Institute Edifice*
15. *Internship & Recruiters*
16. *Our Alumni*
17. *Reach Us*

About IIITDM Kancheepuram

Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kancheepuram is an Institute of National Importance, established by the MHRD, Government of India in 2007 with the mandate of specializing in design and manufacturing oriented engineering education and research. Human resource development reforms of the past have helped India to attain global recognition in knowledge and IT enabled services. A strong foothold in the design market will propel the nation's growth and IIITDMs are a result of the Government of India's vision to produce next generation engineers equipped with design and manufacturing skills.

The institute provides the ambience where creativity and new ideas flourish, producing leaders of tomorrow by imparting learning blended with excellence. The dynamic and constantly evolving academic program reflects the institute's commitment to stay abreast with pushing the frontiers of knowledge worldwide. Extra-curricular activities enjoy equal importance towards overall development of students, making them fit for the challenges of the corporate world.



VISION

“To become a premier institute of excellence in design and manufacturing that would create and develop a new generation of engineers and technologists with the ability and mindset to lead Indian industries in global competitive economic environment.”

MISSION

“To be a world class apex centre of excellence in education, research, development and training in design and manufacturing.”

Design Centric Engineering Education

UNIQUELY THOUGHT DESIGN CURRICULUM

Academic programs being offered at IIITDM Kancheepuram are novel and differ from conventional counterparts. The graduates have been exposed to design thinking and manufacturing aspects involved in Computer, Electronics and Mechanical engineering in addition to the regular courses of institute. A stream of courses starting from evolution of design, design visualization using digital tools, design realization in hobby workshops, individual and team based product design and development were introduced. The students emerge as product designers who can conceptualize and evaluate ideas, and make tangible products through a more systematic approach. Curricula of all the programs have been framed after extensive deliberations and discussions with academicians from reputed institutes and industry stake holders.

“LEARNING BY DOING” AND INTER-DISCIPLINARY APPROACH

Life requires us to do, more than it requires us to know, in order to function. We believe that it makes more sense to teach students how to perform useful tasks rather than delivering them series of lectures. The curriculum has been designed to have more number of laboratory courses where students learn through state of art equipment and tools. Our curriculum consciously applies methodology and techniques from more than one discipline to examine a central theme, issue or a problem



Admission and Evaluation

Admission

The toughness of entrance exam and cut-throat competition ensure that the students here are with good intellectual caliber, scientific ability and a strong perseverance to compete. The desire to face competition and succeed translates into other fields too such as designer's clubs etc. The campus is a mix of students with extremely diverse cultural/social backgrounds which trains them to a global career that have similarly challenging environments and experiential learning methods.

Program	Admission Criteria
B.Tech. & Dual Degree	All India Rank based on JEE (Main) and +2 Score for Indian nationals and SAT Score for Non Resident Indians
M.Des	GATE, Design Ability Test and Interview
Ph.D.	Institute Entrance Exam and Interview

Evaluation

Institute adopts continuous evaluation methodology in all courses with the adoption of “interactive learning approach”, in addition to regular paper exam, projects and discussions also form a part of straight evaluation.

Academic Programs

Bachelor of Technology (4 years)

- ❖ Computer Engineering
- ❖ Electronics Engineering (Design & Manufacturing)
- ❖ Mechanical Engineering (Design & Manufacturing)

Dual Degree (5 years)

- ❖ B.Tech - Computer Engineering & M.Tech - Computer Engineering
- ❖ B.Tech - Electronics Engineering (D&M) & M.Tech - VLSI & Electronic System Design
- ❖ B.Tech - Electronics Engineering (D&M) & M.Tech - Signal Processing & Communication System Design
- ❖ B.Tech - Mechanical Engineering (D&M) & M.Tech - Product Design
- ❖ B.Tech - Mechanical Engineering (D&M) & M. Tech - Advanced Manufacturing

Master of Design (2 years)

- ❖ Communication Systems
- ❖ Electronic Systems Design
- ❖ Mechanical Systems Design

Ph.D (in all specializations)

Ph. D.

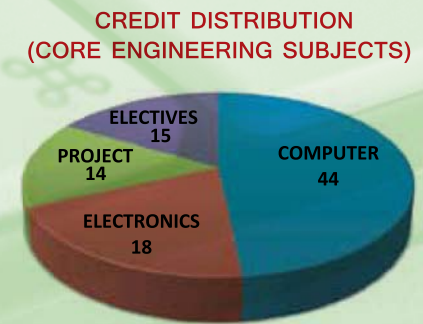
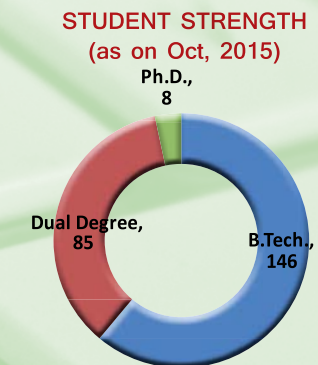
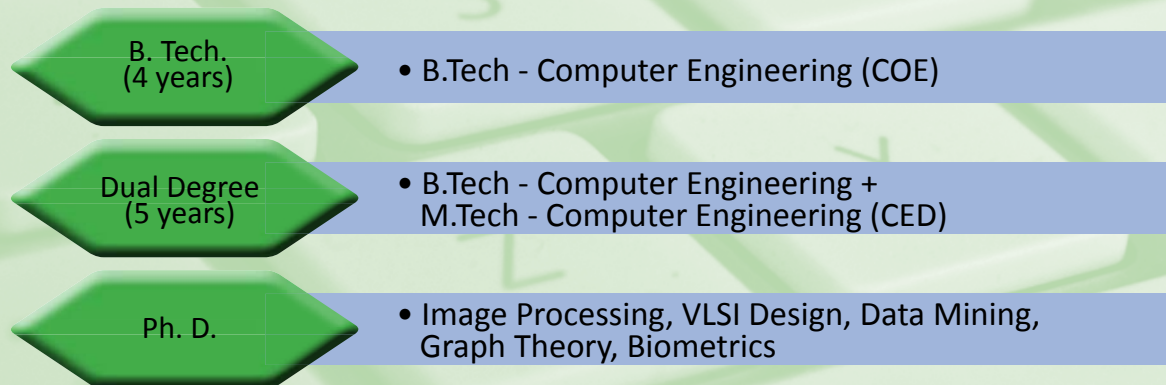
M.Des.

Dual Degree
B.Tech.+M. Tech.

B.Tech.

Computer Engineering

B.Tech and Dual Degree Computer Engineering curriculum offered at IIITDM Kancheepuram is modelled on the Association for Computing Machinery (ACM) recommendations and is the first of its kind engineering program offered in India with a right blend of courses from computer and electronics streams. This program is aimed at producing engineers equipped with skills required for efficient hardware-software interaction. In addition to courses offered by the conventional Computer Science curriculum, this novel program offers core courses such as Embedded Systems, Human Computer Interaction, Simulation & Modelling, Signals & Systems, Product Design etc., that equip the students with both computing and electronics engineering skills that are very much required for the successful creation of products requiring hardware-software interactions.



Faculty

Dr. Masilamani V., Ph.D. (IITM)

- Image Processing and Computer Vision
- Pattern Recognition

Dr. Nargis Pervin, Ph.D. (NUS)

- Social Networks
- Big Data Analysis

Dr. Noor Mahammad Sk, Ph.D. (IITM)

- VLSI Design, Evolvable Hardware
- Reconfigurable Computing

Dr. Sadagopan N, Ph.D. (IITM)

- Graph Theory and Combinatorics
- Data Structures and Algorithms

Dr. Sivaselvan B, Ph.D. (NIT Trichy)

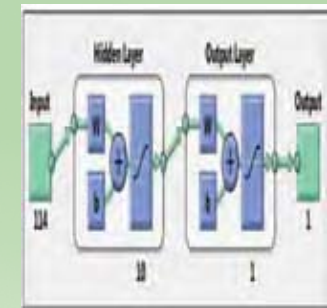
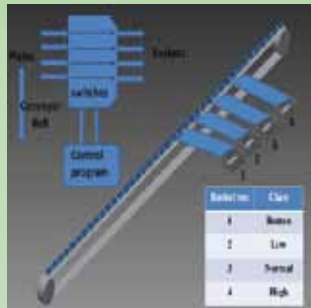
- Knowledge and Data Engineering
- Data Structures, Genetic Algorithm

Dr. Umarani Jayaraman, Ph.D. (IITK)

- Biometrics
- Pattern Recognition

Dr. Vijayarangan N, Ph.D. (UoM)

- Information Security
- Data Analytics

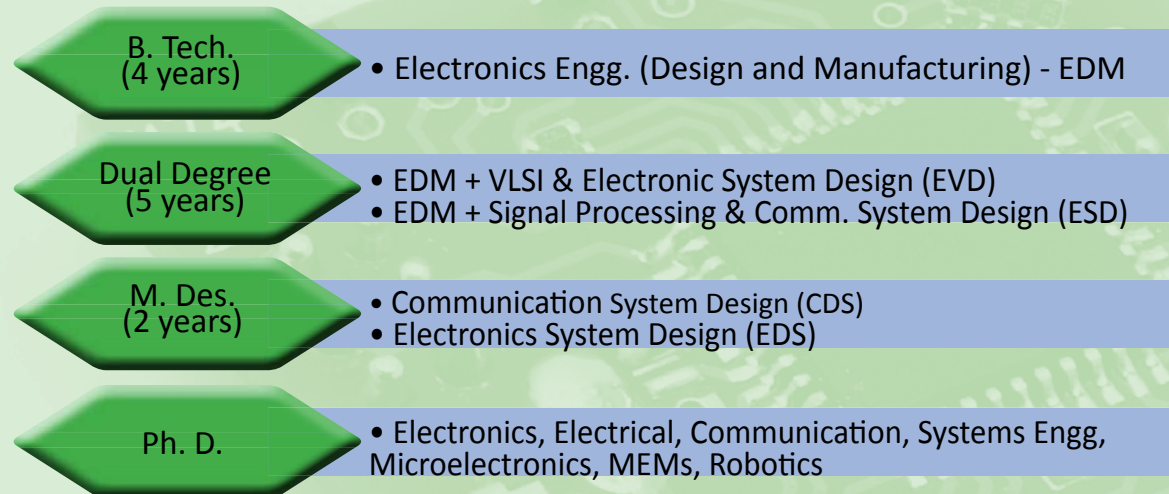


Laboratories

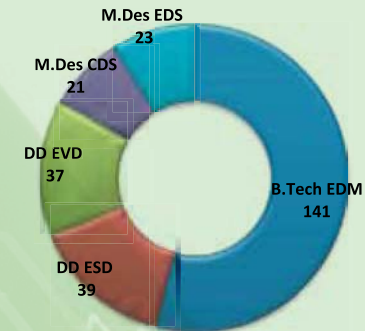
- Digital and Analog Circuits Design
- Object Oriented Algorithm Design and Analysis
- Database Systems
- Computer Organization and Design
- Computer Networking
- Operating Systems
- VLSI System Design
- Computer Architecture
- Embedded Systems
- Product Design

ELECTRONICS ENGINEERING

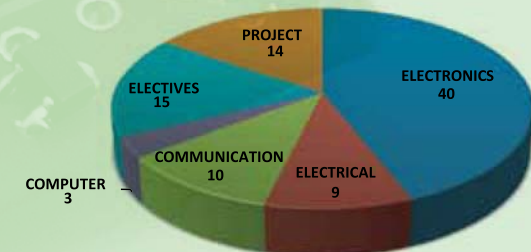
Electronic product design and development in today's scenario requires the skillful blend of expert hardware and software engineering with a spirit of creativity and innovation, tempered by the practical concerns of manufacturability, cost consciousness and reliability. The offered Undergraduate (B.Tech), dual degree (B.Tech + M.Tech) and post graduate (M.Des) programs are designed to provide advanced theoretical and practical knowledge on all aspects relevant to design, development and production of modern electronic systems. The innovative programs offered supplements the conventional core curriculum courses with specialized design courses required for practicing designers both from product design and domain areas.



STUDENT STRENGTH (as on Oct. 2015)



CORE ENGINEERING CREDIT DISTRIBUTION



Faculty

Dr. Binsu J Kailath, Ph.D. (IITM)

- Microelectronics and MEMS-Modeling and Technology

Dr. Damodharan P, Ph.D. (IITM)

- Power Electronics and Drives

Dr. Karthikeyan S.S, Ph.D. (IITG)

- Microwave Passive Devices, Microstrip Antennas, Meta materials

Dr. Premkumar K, Ph.D. (IISc Bangalore)

- Scheduling in Networks, Social Networks, Cognitive Radio, Internet of Things

Dr. Priyanka Kokil, Ph.D. (NIT Allahabad)

- Nonlinear System, Delayed System, Multidimensional System

Dr. Selvajothi K, Ph.D. (IITM)

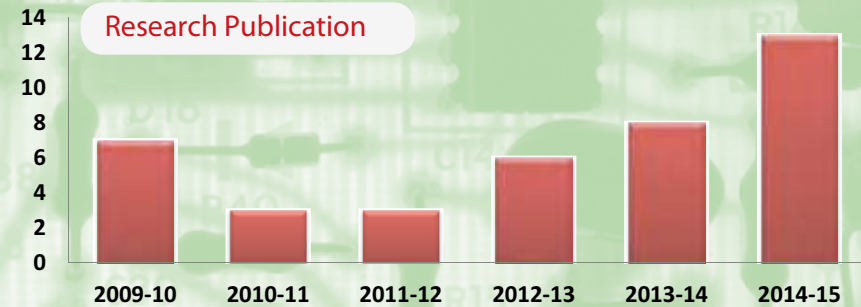
- Power Electronics and Drives and FPGA/DSP Control Algorithms

Dr. Selvaraj M.D, Ph.D. (IITD)

- Wireless/Mobile Communication, Cooperative Communication.

Dr. Shunmugam R. Pandian, Ph.D. (IITD)

- Autonomous Underwater Robots, Robot Design



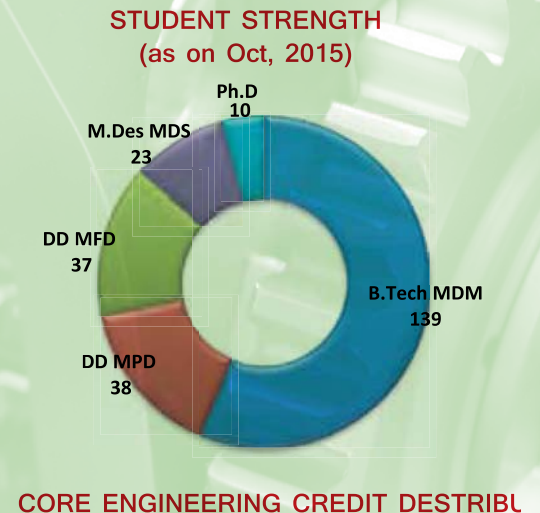
Laboratories

- Data Structures and Algorithms
- Electrical Drives
- Analog Circuits
- Digital Signal Processing
- Product Design
- Sensing and Instrumentation
- Digital Logic Design
- Microprocessors and Micro Controllers
- Communication Systems
- PCB Design
- VLSI Design
- Embedded Systems



MECHANICAL ENGINEERING

The academic programs, UG, dual degree, PG, PhD programs offered by Mechanical Engineering department augments the existing Mechanical Engineering curricula offered by IITs with design courses on conceptualization, visualization and engineering simulations. Equipped with well-structured instruction and learning resources and research facilities, the institute aims to disseminate education in the inter-disciplinary areas of design and manufacturing engineering. Design visualization imparted through graphic art practice and product design practice enables students to conceptualize, design, simulate and develop tangible products.



Faculty

Prof Narayanan S, Ph.D. (IITM)

- Vibration and Acoustics, Smart Structures Vehicular Vibration

Prof Gnanamoorthy R, Dr. Eng. (Japan)

- Mechanical Design, Surface Engineering, Advanced Materials & Product Design

Dr Chandrasekaran C, Ph.D. (IITM)

- New product development ,CNC technology, Gear machines, Project management

Dr Jayabal K Ph.D. (IITM)

- Computational Mechanics, Finite Element Methods , Material Modeling

Dr Jayavel S, Ph.D. (IITM)

- Computational Fluid Dynamics, Fluid and Thermal Sciences

Dr Pandithevan P, Ph.D. (IITG)

- CAD/CAM, Bio-mimetic Design, Tissue Engineering, Medical Image Based Reconstruction

Dr Raja B, Ph.D. (CEG Anna Univ)

- Refrigeration and Air-Conditioning, CFD, Boiling Heat Transfer and Nanofluids

Dr Senthilkumar K, Ph.D. (IITD)

- Additive Manufacturing, Sustainable Manufacturing

Dr Shahul Hamid Khan B, Ph.D. (NIT Trichy)

- Multi objective Optimization, Supply Chain Management, Reverse Logistics

Dr Sreekumar M, Ph.D. (IITM)

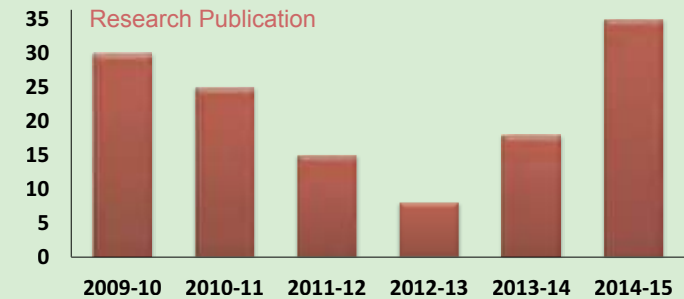
- Robotics , Serial and Parallel Mechanisms

Dr. Sudhir V, Ph.D. (IITM)

- Complexity theory, Design and Management

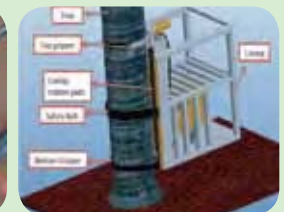
Dr. Venkata Timmaraju Mallina, Ph.D. (IITM)

- Modelling of Materials Behaviour, Fatigue and Fracture, Design with Polymers and Composites



Laboratories

- Machine Drawing and Manufacturability Analysis
- Mechanical Design
- Quality Inspection and Product Validation
- Fluid Mechanics and Heat Transfer
- Thermal Engineering
- Sensors and Controls
- Manufacturing & Automation
- Mechanical Design and Simulation
- Product Design
- Product Realization



BASIC SCIENCES

Faculty

Mathematics

Dr. Shalu M A, Ph.D. (IITM)

- Graph Theory, Algorithms, Metabolic Networks

Dr. Vijayakumar S, Ph.D. (IITM)

- Algorithms, Combinatorial Optimization, Computational Complexity

Physics

Dr. Naveen Kumar Vats, Ph.D. (IITD)

- Fiber Optics, Solar Thermal Energy

Dr. Tapas Sil, Ph.D. (Visva Bharati)

- Giant Resonances of Nuclei, Relativistic Mean Field Theory in Nuclear Structure, Properties of Hot Nuclei



Laboratories

- Mechanics and Wave
- Basic Materials and Mechanics
- Measurements and Data Analysis

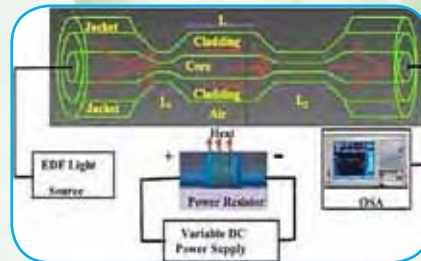
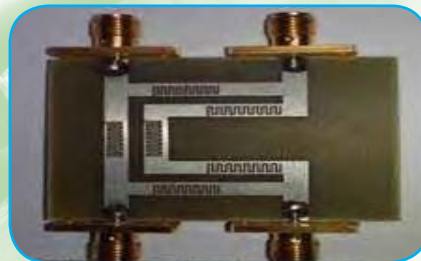
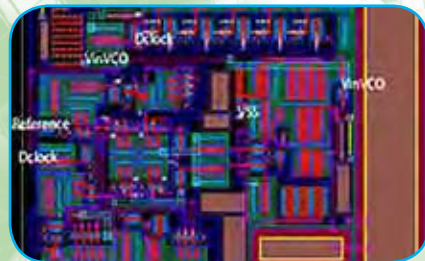
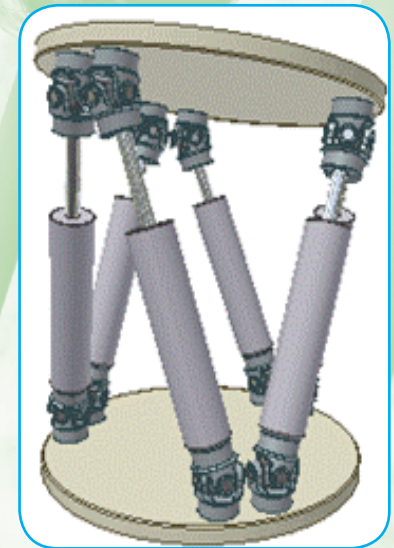
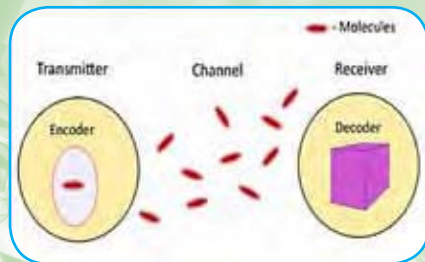


RESEARCH

In addition to B.Tech and M.Des courses, IIITDM Kancheepuram offers PhD program to pioneer the evolution of novel design and solution for a social cause. The PhD programs impart knowledge and skills towards performing high quality research in the domain of Design & Manufacturing. The motive behind this research program is to prepare students for careers in engineering education and research to develop distinguished teachers to lead and guide the future generations to lace the technological challenges ahead. The students are motivated to carry out research in key areas in Computer Science, Electrical, Electronics, Mechanical, Maths and Physics streams.

Ongoing Sponsored Research Works

- Design, development and characterization of all- fiber interferometer for wavelength Interleaving and temperature sensing applications
- Design, development and performance evaluation of enhanced air- cooling in electronic systems
- Rural and remote ubiquitous broadband wireless access
- Development of a nanofluid coolant for high heat flux devices with mini-channel heat Exchanger
- Design and development of energy efficient freeze dryer with multiport mini-channel shelf heat exchanger



STUDENTS LIFE

NEXT Club

Lit' Club

Dance Club

Designers' Club

Quiz Club

Photograbhics Club

Ingeium Club

Art Club

Robo Club

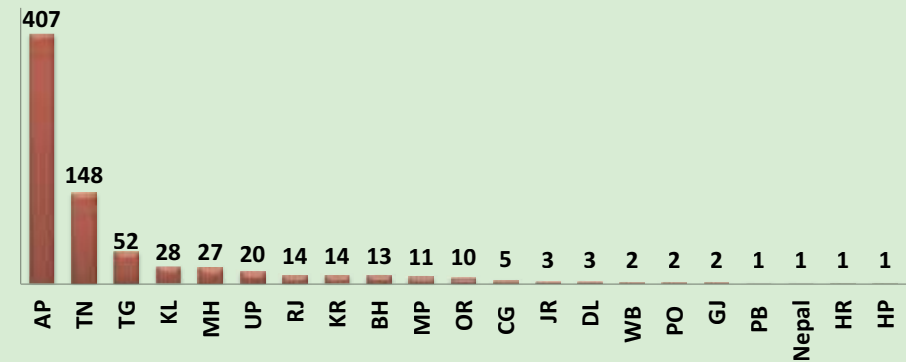


CAMPUS DEMOGRAPHY

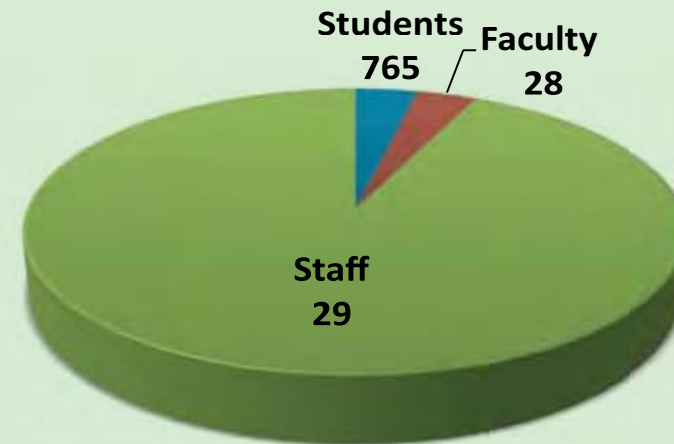
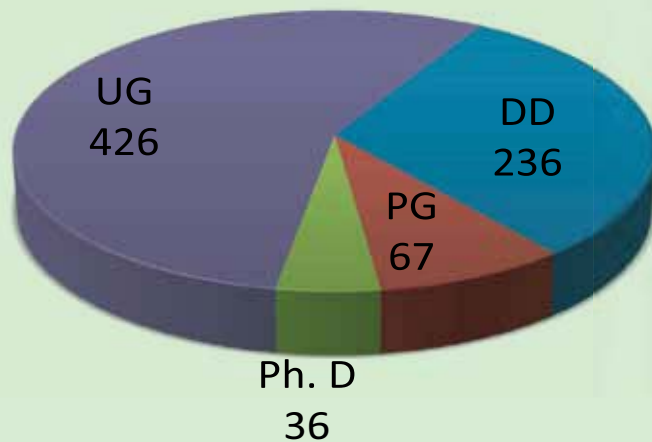
STUDENT STRENGTH



STATE WISE DISTRIBUTION

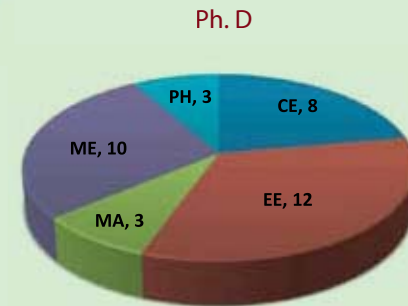
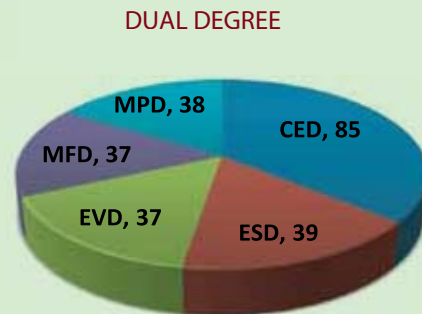
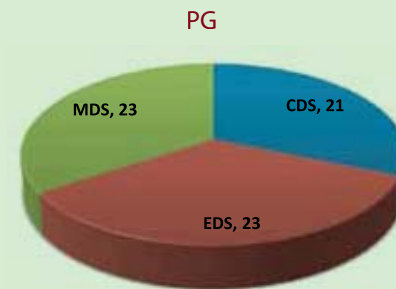
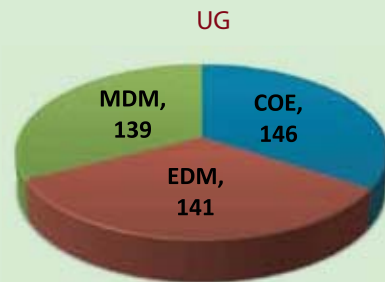
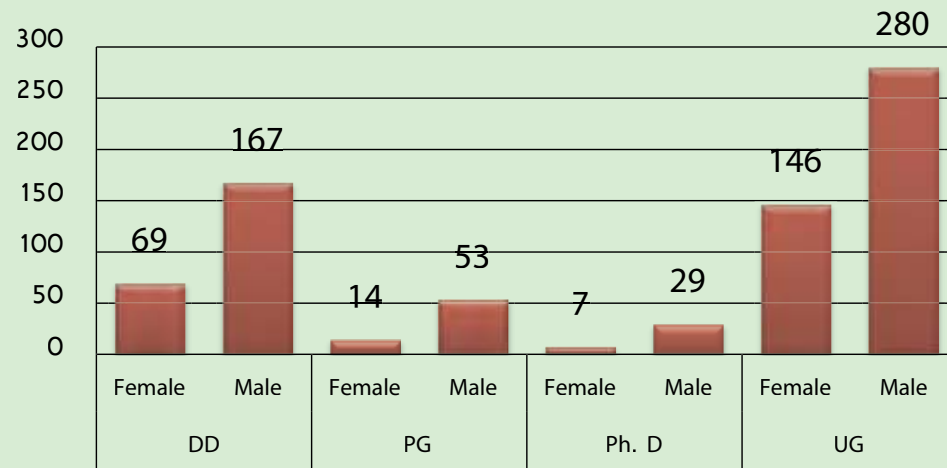


ACADEMIC PROGRAMS



(as on Oct 2015)

STUDENT DEMOGRAPHY



(as on Oct 2015)

MoUs & INDUSTRY INTERACTIONS

IIITDM Kancheepuram encourages collaboration with reputed academic and research organizations to create opportunities for cooperation in education, training and research on the basis of promoting faculty and student exchanges and joint R&D activities. In this process, the Institute has signed MOUs with the following Institutions.

- HITACHI Automotive Systems, Japan (Student Exchange Program)
- Gill Instruments, Bangalore
- Altera Corporation, USA
- The University of Genova, Italy
- The University of Catania, Italy
- The Nagaoka University of Technology, Japan



INSTITUTE EDIFICE



**Academic Complex
with digital
class rooms**



**Knowledge plaza
with a good digital
collection**



**State of the art
laboratories**



**Hostels with
leisured learning
environment**



**Centralized Dining
Halls**



Library



Central
Administrative
Block



Indoor and
Outdoor Sports
Facilities



INTERNSHIP & RECRUITERS



OUR ALUMNI

Our alumni are in the world's best industries, universities and research organizations.

- 
- Abi Showatech (I) Limited
 - Adnes Equifax/Nettpositive
 - Apple Inc.
 - Bally Technologies
 - BEML Limited
 - Cognizant Technology Solutions
 - COMSOL Inc.
 - Core Design
 - Cummins Inc.
 - GE Capital
 - HCL Technologies
 - Infosys
 - Larsen & Toubro
 - Mu-Sigma Pvt Ltd
 - NEC India Pvt. Ltd.
 - Pricol Ltd.
 - SVP Laser Technologies Pvt. Ltd.
 - TCS
 - Techlinksolutions
 - Thorogood Associates
 - United Health Group AVL Powertrain UK Ltd
 - Verizon Wireless
 - Arizona State University
 - Columbia University
 - Florida Institute of Technology
 - Georgia Institute of technology
 - Meccademia Dubai
 - Nagoka University of Technology
 - Nanyang Technological University
 - National Chiao Tung University,Taiwan
 - North Carolina State university
 - Northern Illinois University
 - Penn State University
 - Pennsylvania State University
 - Purdue University
 - Rochester Institute of Technology
 - Royal Institute of Technology, Sweden
 - Stanford University
 - The Ohio State University
 - University of British Columbia
 - University of Cincinnati
 - University of Missouri-Kansas City
 - University of Southern California
 - University of Washington
 - University of Wisconsin–Madison

