

वार्षिक प्रतिवेदन

Annual Report

2015-16



भारतीय सूचना प्रौद्योगिकी
अभिकल्पना एवं विनिर्माण संस्थान, कांचीपुरम
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY
DESIGN AND MANUFACTURING, KANCHEEPURAM

ANNUAL REPORT

2015-16



**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY
DESIGN AND MANUFACTURING, KANCHEEPURAM**

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Chairman's Message



On behalf of the Board of Governors, I congratulate Prof. Gnanamoorthy and his team for their tireless efforts to build an institute of excellence in design and manufacturing. Indeed they have created a model campus for such institutions. This Annual Report is a comprehensive summary of the laudable activities of IIITDM during the academic year 2015-16. Yet it has many miles to go to achieve its aspirational vision.

The university has always been the major source of creativity – discovery, invention and innovation. Unlike its siblings innovation has everything to do with commercial success. It is either about something new or about extracting value from a creative understanding of what is already known. The globalised economy of today depends for its survival on innovation and entrepreneurship. Institutions of higher learning have an important role to play in this regard.

In the last century, the 'idea-factory' approach was born in industrial research labs in the USA as a management tool to find innovative solutions to real problems in specific sectors. The fundamental idea behind these approaches was to bring unlike minds together and put 'mix of academic disciplines to action'. This led to the creation of several University-based Research Parks all over the world during the last several decades. The 'unlike minds' in this context are the faculty from different disciplines with a sound knowledge of their subjects, the industrial R&D experts who have an awareness of the value of innovative ideas in the market place and the students who combine sparks of originality with the will to conquer.

As IIITDM grows in stature as a nationally important design-centered institution of higher learning it is making every effort to teach its students how to use their professional knowledge innovatively, tempered by commonsense, ethical values, and intuitive judgment. It is also establishing an enviable rapport with the industry. The next step for IIITDM will be to set up its own Research Park between 2020 and 2025 and be one of the leading institutions that will make India the design house of the world. I wish IIITDM all the very best in its future endeavours.

Professor M. S. Ananth
Chairman, Board of Governors

Director's Message



IIITDM Kancheepuram, since its humble beginning in 2007, has progressed over the years steadily in terms of infrastructure creation and IT enabled Design & Manufacturing centric education, pedagogy and research. The permanent campus at Melakottaiyur has witnessed phenomenal growth since operationalization in August 2011. During this short span of five years, major infrastructure supporting academic, research, administrative, student hostels and various other amenities have been created. The period under report saw the completion and inauguration of the Indoor Sports Complex (ARJUNA) with state of the art facilities for badminton, volleyball and other sports. We have had the benefit of growing rapidly and utmost care has been taken to ensure the compliance of green norms with respect to infrastructure, and the first phase of solar rooftop power generation unit with a capacity of 50 KW was connected to the grid during 2015-16. The construction of the laboratory complex is likely for handover by July 2016. The complex shall house the Teaching Learning Centre, Design Innovation Centre, and faculty cabins, Library and various UG and PG Laboratories.

It is a matter of great satisfaction to highlight that right from its inception, the institute has been steadfast in offering novel and demand tuned IT enabled Design & Manufacturing programmes in the core sectors of computer, electronics and mechanical engineering. The period under report saw the revision of existing B.Tech curricula and Dual Degree programmes curricula with thrust on design & manufacturing solutions. Novel design courses such as Intelligent Product Design, Concepts of Engineering Design, Design Realization, Design for Sociology, etc. inject the design thinking required for an engineering graduate. The institute maintains healthy interaction with industry counterparts whose inputs are considered during the process of new programme initiation/curricula evolution. A novel B.Tech Mechanical Smart Manufacturing programme is on the anvil and is likely to be operational from the next academic year onwards. Such Design & Manufacturing focused programmes should serve as an excellent feed for the Make in India, Make for India and Startup India campaigns of the government. The program under development has a good blend of advanced manufacturing and ICT courses needed to satisfy the dynamic customer demands of the modern industry.

The period under report was also witness to the Third Convocation of the institute. The event saw the award of 219 degrees – 159 B.Tech and 60 M.Des graduates . We are also part of the Special Project awarded by

Japanese Ministry of Education, Culture, Sports, Science and Technology under Reinventing Japan Project, to Nagaoka University of Technology to facilitate increased international interaction between India and Japan. As part of this scheme, two Japanese students visited the institute for a five month internship and a couple of Ph.D research scholars of our institute visited Japan. One of our M.Des scholars has also pursued internship at HITACHI Japan.

Six new faculty members joined the institute in different disciplines in the reporting period. These faculty collectively have decades of teaching and research experience in reputed academia or served in renowned industry/research organizations. The blend of expertise in academia and industry among the faculty helps the students to gain good understanding of basic principles/fundamentals and to apply for product design and development. Our young and dynamic faculty published their original research work in reputed journals and received grants for carrying out research works and setting up of Centres of Excellence.

The Institute sports contingent has performed exceedingly well at TWARAN 2016 and in various sport fests conducted by Saveetha University, Hindustan University, and IIT Madras. The Social Service Group (SSG) has conducted various activities in and around the campus. Also, the SSG members volunteered to promote education to nearby school children.

It is my pleasure to inform that the “dna & Stars Group” awarded the “Education Leadership Award for 2016” to the insitute. Having had the privilege of being associated with the institute right from its inception, it gives me a sense of satisfaction to note that in line with the mandate for which it was setup, we are offering novel and first of their kind engineering programmes with acceptance from industry stakeholders, students and parents community. Given the dedicated and sincere efforts of the students, staff and faculty, I am confident that we shall progress future in the coming years to scale even greater heights in terms of academic and research success.

Prof R Gnanamoorthy
Director





I. GENERAL INFORMATION

Vision

To become a premier institution 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 globally competitive economic environment.

Mission

To be a world class apex centre of excellence in education, research, development and training in Design and Manufacturing.

Charter

- To provide education and training, at both undergraduate and postgraduate levels, to persons of outstanding abilities who would provide leadership to Indian industry in globally competitive economic environment.
- To carry out advanced research and development activities in design and manufacturing technologies, both on its own and on sponsorship basis for the industry.
- To provide distance learning and continuing education programmes for faculty / scholars from other institutions and industry personnel.
- To organize conferences, seminars, workshops and such other activities for the dissemination of knowledge to industry.

Vision
Mission
Charter



Institute Administration

Board of Governors

Board of Governors

Title	Name	Affiliation
Chairman	Prof. M. S. Ananth	Former Director Indian Institute of Technology Madras
Members	Shri. B.S. Raghavan	Former Advisor to UN, Author & Educationist Former Chief Secretary
	Shri. T. K. Ramachandran	Secretary to Government Dept of Information Technology, Govt. of TN
	Smt. Rina Sonowal Kouli	Director (ICR) Dept. of Higher Education, MHRD, Govt of India
	Prof. Bhaskar Ramamurthi	Director Indian Institute of Technology Madras
	Lt Gen (Retd) K R Rao	Former Director General Artillery Former Director General, Manpower & Planning
	Shri. B. Santhanam	President – Flat Glass, South Asia, Egypt, Managing Director, Saint Gobain Glass, India
	Shri. Krishna G.V. Giri	Managing Director, Management Consulting Health & Public Service, Asia Pacific, Vice Chairman, Accenture
	Prof S. Narayanan	Emeritus Professor IIITDM Kancheepuram
	Prof. David Koilpillai	Professor, Department of Electrical Engineering Indian Institute of Technology Madras
Member & Secretary	Prof. R. Gnanamoorthy	Director & Registrar IIITDM Kancheepuram



Finance Committee

Finance Committee

Title	Name	Affiliation
Chairman	Prof. M. S. Ananth	Chairman, BoG
	Prof. R. Gnanamoorthy	Director, IIITDM Kancheepuram
	Dr. S. Murugiah	Former Principal Acct General, TN
Members	Smt. Tripti Gurha	Director (IITs), MHRD, Gol
	Shri. Rajesh Singh	Director (Finance), MHRD, Gol
	Prof. S. Narayanan	Emeritus Prof (Adjunct), IIITDM Kancheepuram
	Secretary	Mr. A. Chidambaram

Building and Works Committee

Building and Works Committee

Title	Name	Affiliation
Chairman	Prof. R. Gnanamoorthy	Director, IIITDM Kancheepuram
Members	Prof. S. Narayanan	Emeritus Professor (Adjunct), IIITDM Kancheepuram
	Prof. P. Alagusundarmoorthy	Professor, Dept of Civil Engineering, IIT Madras
	Shri. K. Muthu	Supt Engineer, TNEB- TANGEDCO Chengai
	Shri. R. Arumugam	Supt Engineer, IIT Madras
Secretary	Shri. A. Manickavasagam	Consultant Engineer (Civil), IIITDM Kancheepuram



Senate

	Title	Name	Affiliation	
Chairman		Prof. R Gnanamoorthy	Director, IIITDM Kancheepuram	
		Prof. S. Narayanan	Emeritus Professor, IIITDM Kancheepuram	
		Prof. S. Santhakumar	Former Professor & Dean, IIT Madras	
		Prof. K. Chandrasekaran	Former Professor, Anna University, Chennai	
		Prof. P. Chandramouli	Professor, Dept of Mech Engg, IIT Madras	
		Prof. Nilesh Vasa	Professor, Dept of Engg Design, IIT Madras	
		Prof. R. Ramanujam	Professor, Inst of Math Sciences, Chennai	
		Prof. Harishankar R	Professor, Dept of Electrical Engg, IIT Madras	
		Prof. V. Jagadeesh Kumar	Professor, Dept of Electrical Engg, IIT Madras	
		Prof. S G S Raman	Professor, Dept of Metallg & Matls Engg, IIT Madras	
		Prof. Krishna Vasudevan	Professor, Dept of Electrical Engg, IIT Madras	
		Prof. L Vijayaraghavan	Professor, Dept of Mech Engg, IIT Madras	
		Prof. Hema A Murthy	Professor, Dept of Computer Engg, IIT Madras	
	Members		Prof. Krishnamoorthy S	Professor, Dept of Computer Engg, IIT Madras
			Prof. V. Raghu Prakash	Professor, Dept of Mech Engg, IIT Madras
			Dr. V. Masilamani	Asst Professor, Computer Sci & Engg, IIITDM
		Dr. P. Damodharan	Asst Professor, Electronics Engg, IIITDM	
		Dr. B. Shahul Hamid Khan	Asst Professor, Mechanical Engg, IIITDM	
		Dr. Noor Mohamad	Warden, Boys Hostel, IIITDM	
		Dr. J. Umarani	Warden, Girls Hostel, IIITDM	
		Dr. B. Ravikishore	M/s HCL Info Systems Pvt Ltd, Chennai	
		Dr. C. Mathiazhagan	M/s CEO Market I Japan, & MK Tech India	
		Dr. M. Sathya Prasad	M/s Ashok Leyland, Chennai	
	Shri. Sandeep Ghosh	M/s TCS Engineering Services		
	Dr. G. Venkatesh	M/s Sasken Communication Tech Ltd		
	Dr. Anand Lakshmanan	M/s Ericsson India Global Services		

Senate

Administrative Staff



Prof. R. Gnanamoorthy
Director



Shri. A. Chidambaram
DR (Accounts)



Shri. R. Gunasekaran
DR (Administration)



Shri. A. Manickavasagam
Consulting Engineer



Shri. G. Ravi Kumar
Assistant Registrar



Shri. P. N. Srinivasan
Manager



Shri. K. Chandrasekaran
Internal Audit Officer



Shri. M. V. R. Seshagiri
Corp. Relation Officer



Shri. Y. Tejovadan
Junior Superintendent



Shri. S. Saravanan
Junior Superintendent



Smt. S. Rajalakshmi
Junior Superintendent



Kum. G. Subashini
Junior Superintendent



Shri. S. Pandiyan
Junior Engineer (Civil)



Shri. Ramkumar R.
Junior Engineer



Shri. P. Alaguraj
Physical Training
Instructor



Shri. G. Perumal
Senior Lib Info Asst



Shri. R. Parthasarathy
Junior Accountant



Smt. P. Kavitha
Junior Assistant



Shri. G. Venkatesh
Junior Assistant



Shri. S. Karthikeyan
Junior Assistant



Shri. S. Prabhu
Jr. Technician (Library)



Shri. K. Dinesh Kumar
Junior Assistant



Shri. A. VijayaBharathi
Junior Attendant



Shri. R. Balaji
Junior Attendant

Technical Staff



Shri. C. Gurunathan
Technical Officer



Shri. P. M. Sriram Bhaskar
Jr. Tech. Suptd.



Shri. K. Saravana Kumar
Jr. Tech. Suptd.



Shri. A. Vigneshwaran
Jr. Tech. Suptd.



Smt. K. Manimegalai
Junior Technician



Shri. G. Manigandan
Junior Technician



Shri. M. Ashwinraj
Junior Technician



Kum. P. Pavithra
Junior Technician



Shri. R. Dharmarasu
Junior Technician



Shri. K. Kanagaram
Junior Technician

II ACADEMICS



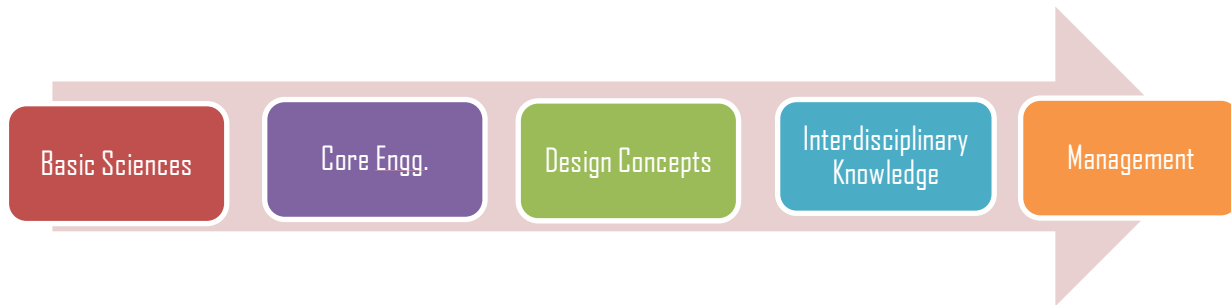
**The function of education is to teach one to think intensively and to think critically.
Intelligence plus character - that is the goal of true education.**
- Martin Luther King, Jr.

Design – Centric Academic Programs

Academic programs evolved at IIITDM Kancheepuram after a series of brainstorming sessions with industry experts and renowned academicians from different regions and fields expertise to bridge the gap between the academia and industry. The young engineers graduating from educational institutions have good fundamental knowledge but find difficult to apply it to solve real world problems. The innovative design centric academic programs introduced at IIITDM Kancheepuram have course streams in design and management that will help them to be more innovative and industry ready. Programs focusing on Design and Manufacturing are the preferred choice by individuals who wish to fulfil the role of a design and manufacturing engineer. Design, Manufacturing, and Product Development is an integral part of each programme in the institute, it satisfies two key criteria: it has a significant societal impact, and it offers significant intellectual challenges:

- **Societal impact**- Engineering's primary value to society is its ability to deliver products and solutions that improve quality of life. Their benefits may include enhanced comfort, safety, convenience, cost-effectiveness, usability, functionality, and marketability. The curriculum is enriched with courses which are a blend of management and environmental science, etc. In addition, students have to design and develop a product/prototype as a part of their course.

- Intellectual challenges- For products to be competitive technically, they must incorporate appropriate new technologies and be refined using leading-edge modelling, simulation, and experimental methods. The curriculum imparts strong fundamental knowledge in basic sciences and engineering to the students so that the students can tackle complex design problems.



Academic Programmes Offered

IIITDM Kancheepuram functions with the vision of developing engineers with design and manufacturing skills. The institute gives significant amount of emphasis for practice courses and theory concepts are explored along with the relevant laboratory course. In concise terms, the motto of the institute is "Learning by Doing". All the programs are highly interdisciplinary and students are free to choose their specializations.

B Tech

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

Dual Degree (B Tech + M Tech)

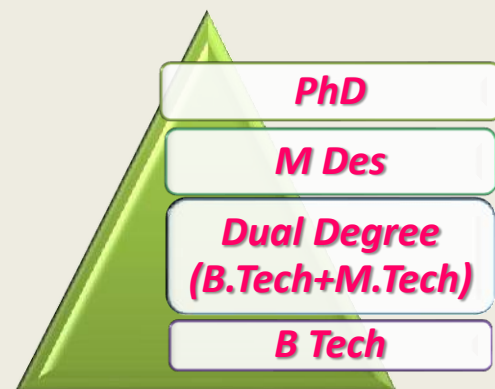
- Computer Engineering
- Electronics Engineering (Design & Manufacturing) + Signal Processing & Communication System Design
- Electronics Engineering (Design & Manufacturing) + VLSI and Electronic System Design
- Mechanical Engineering (Design & Manufacturing) + Product Design
- Mechanical Engineering (Design & Manufacturing) + Advanced Manufacturing

M Des

- Communication Systems
- Electronic systems
- Mechanical Systems

Ph D

Basic Science & Engineering





Academic Milestones

2016 B Tech
Smart Manufacturing

2015 Mentoring IIITDM
Kurnool with 50 Intake

2014 Dual Degree
Programs Intake 120

2013 UG Intake
Increased to 120

2012 M Des
(Commn. Systems)

2011 UG Intake
Increased to 90

2010 M Des
(Mech / Electronics)

2009 B Tech - 20
(Computer Engg)

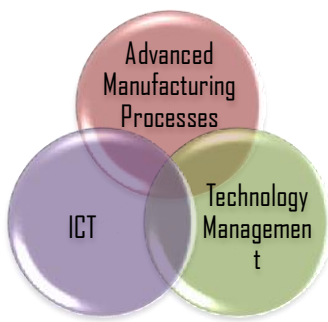
Doctoral (Ph D)
Programs

2008 B Tech - 20
(Electronics D&M)

2007 B Tech - 30
(Mechanical D&M)

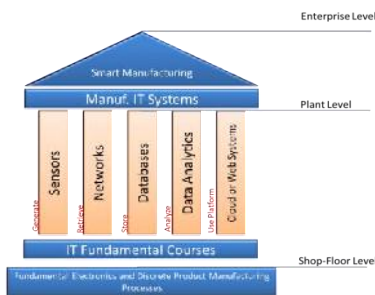
B Tech Mechanical Smart Manufacturing

New Academic Programme



The recent initiatives of Govt. of India, such as 'Make in India', 'Skill India', 'Startup India' and 'Stand up India', are expected to transform the manufacturing sector into a hotbed of new jobs and lead to overall economic growth. With increasing and rapidly changing customer demand, shorter product life cycle and planning time, and highly competitive market, the industries all over the world are forced to relook into their current organizational setup. The 21st century manufacturing facilities have ushered a new wave of manufacturing with an amalgamation of technologies from advanced robotics to fully integrated production systems. With smart manufacturing or Industry 4.0, manufacturers are moving towards a new level of interconnected and intelligent manufacturing system which incorporates the latest advances in sensors, robotics, big data, controls, and machine learning. The greater digital interconnectedness between various parts of the supply and production chains, as well as the higher reliance on automation in these smart factories, is going to make manufacturing ultra-efficient, ultra-sophisticated, and ultra-productive.

Future manufacturing engineers need to have basic knowledge on ICT. Understanding algorithms and advanced computing can translate into the ability to develop advanced technologies such as 3D-printing and advanced robotics. Overall, as product development and manufacturing systems become more interwoven and cycle times shorten, workers need to have higher levels of basic engineering and analytical skills in order to influence design changes as well as production efficiency. Smart manufacturing has the potential to trigger innovation and productivity, enable and spur growth, facilitate greater worker and product safety, and improve the environmental sustainability of operations of the manufacturing industries.



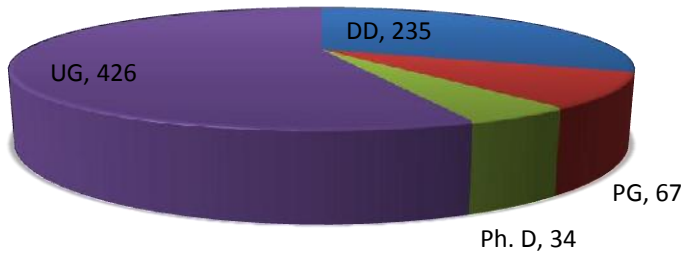
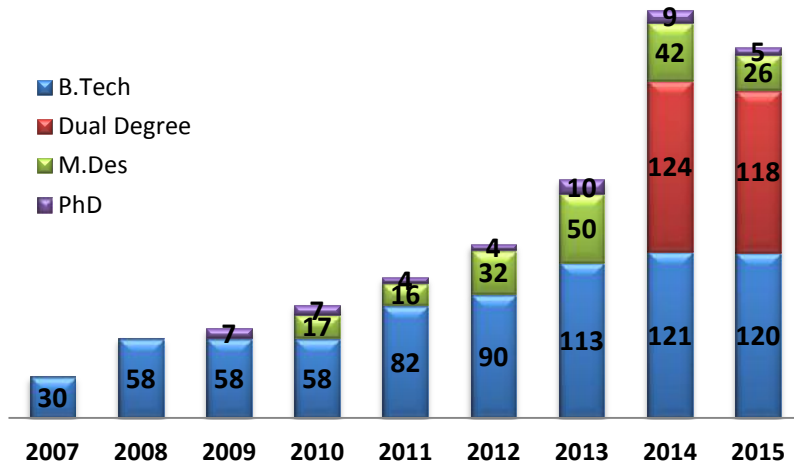
Current manufacturing programs typically called "Production Technology" are being offered at many universities and are primarily focused on discrete manufacturing processes like machining, joining, forming and near-net shape processes. However, the skill set requirements for today's manufacturing engineers spans widely from cross-disciplinary manufacturing processes including electronics manufacturing, IT and algorithms. Recognizing this need, IIITDM Kancheepuram has evolved a novel curriculum for four-year undergraduate degree program in smart manufacturing to be offered from July 2016 onwards.

Fee Structure

S.No	Particulars	Semester Fee Amount		
		B.Tech	M Des	Ph.D.
I. Institute Fees				
A. One time Fees:				
1	Admission Fee	200	200	200
2	Certificate/Thesis Fee	400	400	1500
3	Student welfare fund	500	500	500
4	Infrastructure Development Fee	600	600	600
5	Alumni Life Membership Fee	500	500	500
6	Publication Fee / Library Fee	300	300	300
	Total (A)	2500	2500	3600
B. Semester Fees:				
1	Tuition fee	40000	5000	15000
2	Examination fee	500	500	500
3	Registration	300	500	500
4	Sports Fee	1000	1000	1000
5	Medical Fee	1000	1000	1000
6	Student Amenities	2000	2000	3000
	Total (B)	44800	10000	21000
C. Deposits (Refundable):				
1	Institute & Library Deposit	2500	2500	2500
	Total (C)	2500	2500	2500
D. Medical Insurance Premium (per annum)				
1	Medical Insurance premium p.a.	709	709	709
	Total (D)	709	709	709
Grand Total (A+B+C+D)		50509	15709	27809
II. Hostel Fees				
A. Deposits (Refundable)				
1	Hostel Deposit (NS)	2000	2000	2000
	Total (A)	2000	2000	2000
B. Hostel Fees & Mess Charges per semester				
1	Hostel Admission fee	200	200	200
2	Hostel Seat Rent	1500	1500	1500
3	Hostel Maintenance Charges	6500	6500	6500
4	Advance dining charges	14000	14000	14000
5	Establishment B Charges	500	500	500
	Total (B)	22700	22700	22700
Grand Total (A+B)		24700	24700	24700
Hostellers(I+II)		75209	40409	52509

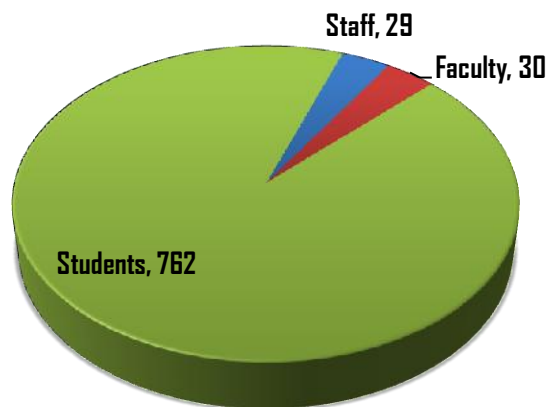
Student Statistics

Student Admission



Student Strength as on 31st March 2016

Campus Population

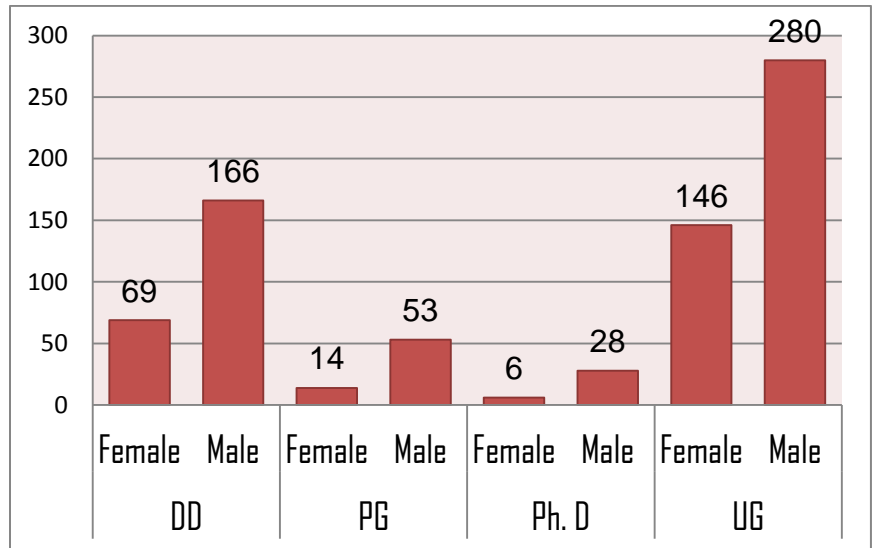


Category wise Distribution as on 31 March 2016

CATEGORY	B. Tech	Dual Degree	M. Des	Ph. D	Total
OP	208	107	39	20	374
OP-PH	7	4			11
OB	114	62	21	10	207
OB-PH	3	1			4
SC	57	33	7	4	101
SC-PH					-
ST	32	17			49
ST-PH					-
DASA	5	11			16
Total	426	235	67	34	762

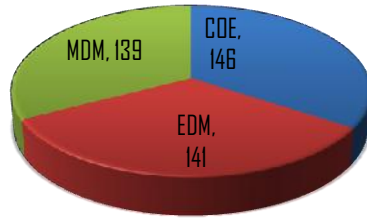
*Student
Statistics*

Student Data - Gender Wise

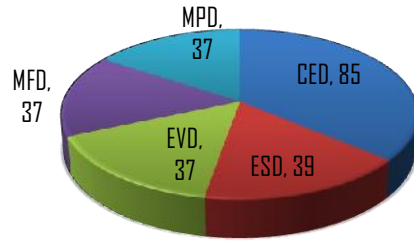


Specialization Wise Student Distribution

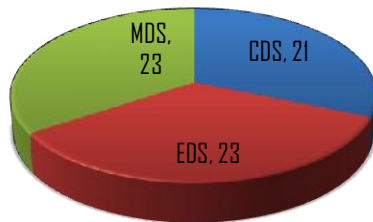
UG



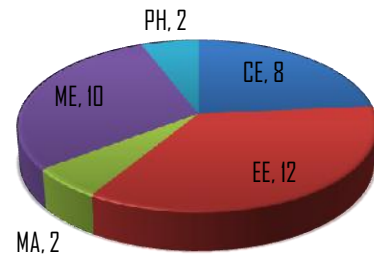
DUAL DEGREE



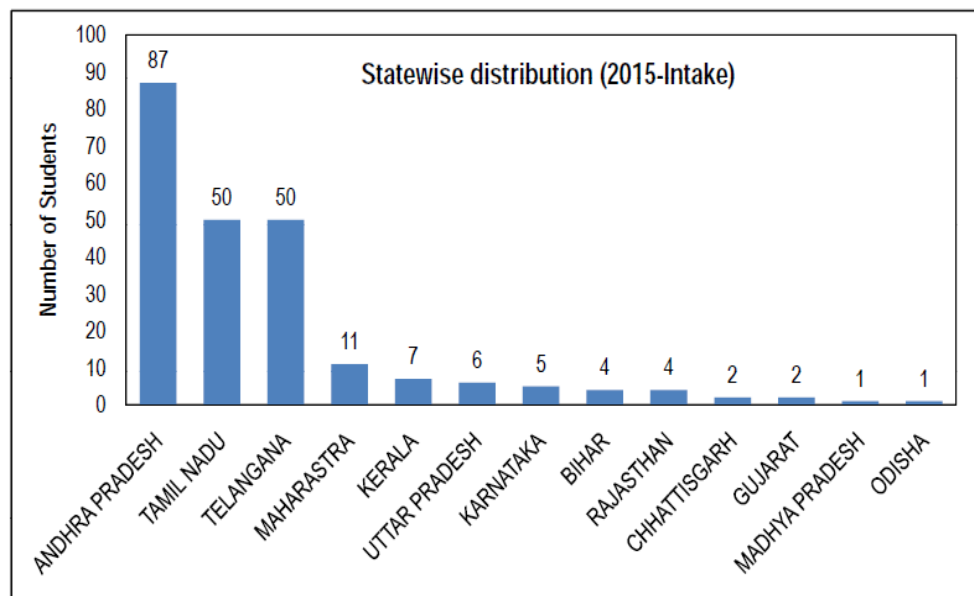
PG



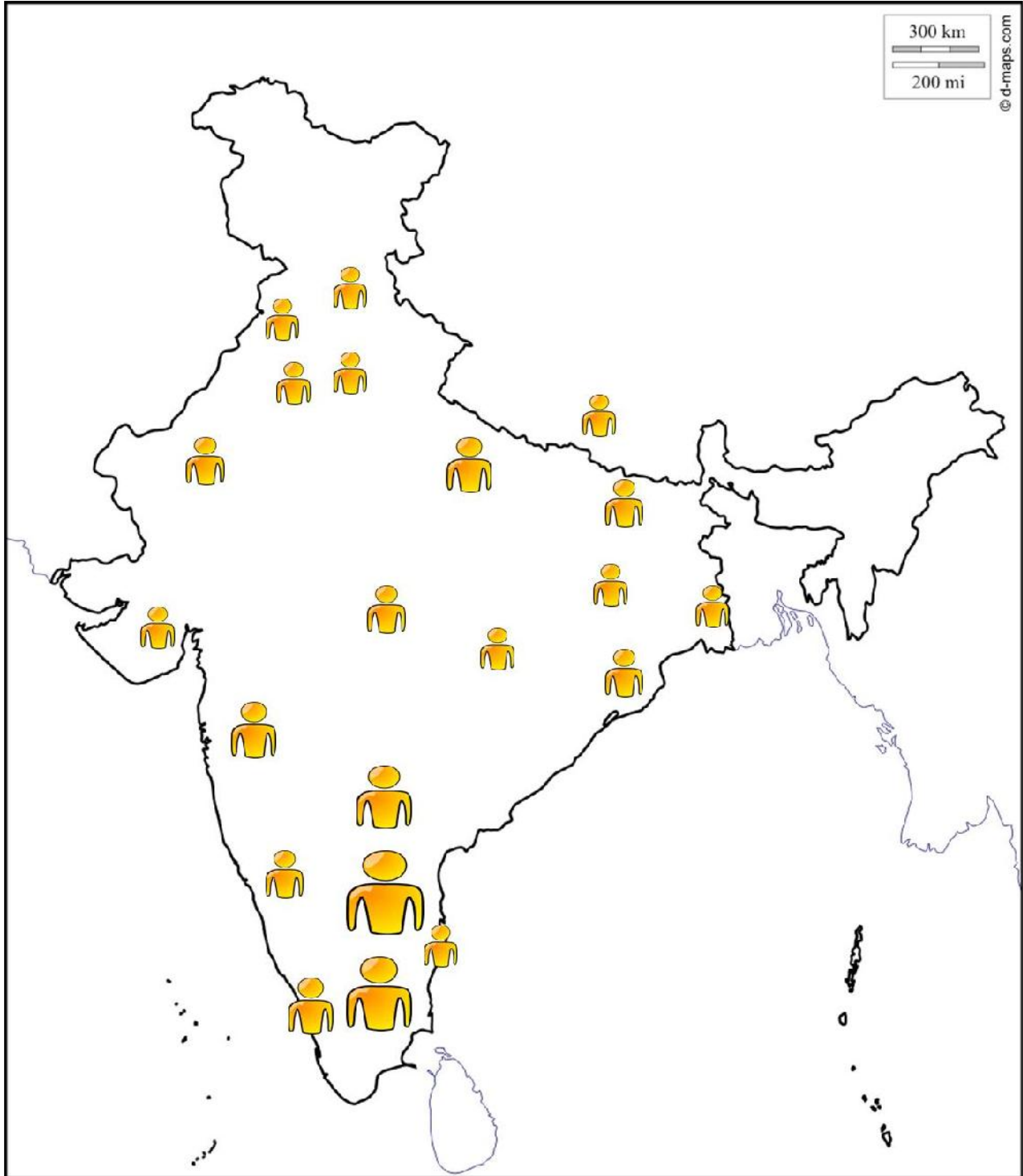
Ph.D



Student Statistics

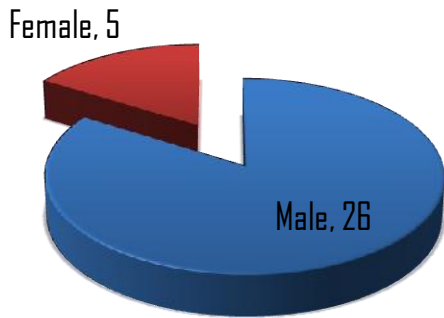


STUDENT DISTRIBUTION OVER INDIA

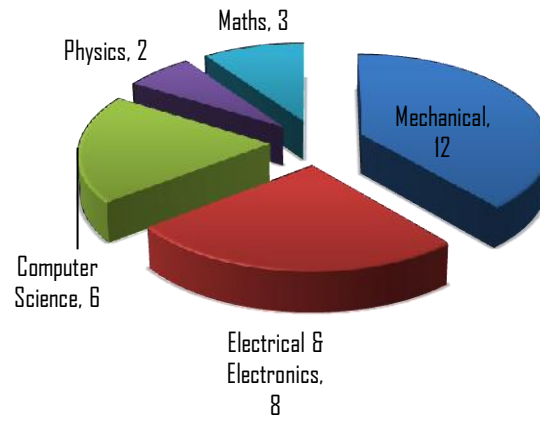


Faculty Information as on 31st March 2016

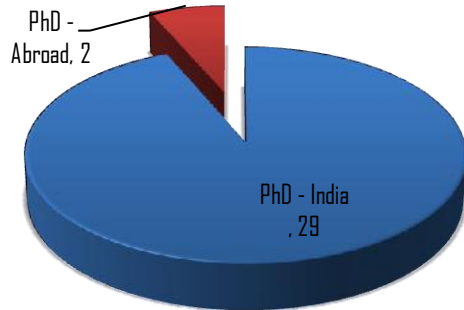
Gender Wise Distribution of Faculty



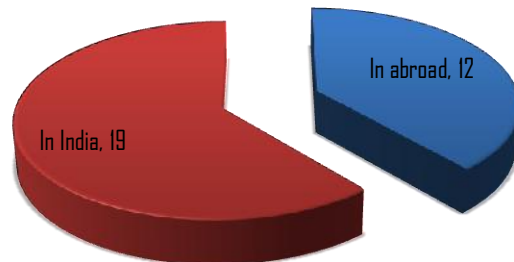
Department Wise Distribution



Doctoral of Faculty



Research & Teaching Experience of Faculty



Third Convocation



The first Doctoral Degree of the Institute was awarded in its Third Convocation on 25th July, 2015 in the Institute campus, Distinguished Chief guest Dr. Lakshmi Narayanan, Vice Chairman, Cognizant graced the occasion and delivered the Convocation Address. Prof M S Ananth, Chairman, Board of Governors and former Director, IIT Madras presided over the ceremony.






3rd Convocation

In the convocation ceremony, the Director of the Institute, Prof R Gnanamoorthy awarded degrees to 73 B.Tech., 49 M.Des., and 1 Ph D graduates. The accolades to the winners of various categories of awards were awarded by the Chief Guest.

DETAILS OF AWARD OF DEGREES

Sl. No	Degree	Discipline	No. of Students
1	B. Tech	COE	24
2		EDM	25
3		MDM	24
4	M. Des	CDS	14
5		EDS	18
6		MDS	17
7	Ph. D	ME	1
Total			123

Details of Prize Winners (UG)

INSTITUTE MERIT PRIZE	BEST OUTGOING STUDENT OF THE YEAR	BEST PROJECT AWARDS		
		COE	EDM	MDM
				
ADITYA NARAYANAN EDM11B001	SONTI AUROBINDO MALLESWAR EDM11B023	KRISHNA CHAURASIA COE11B016	SAGI MAHESH VARMA EDM11B021	SAGAR DOLAS MDM11B025

Details of Prize Winners (PG)

INSTITUTE MERIT PRIZE	BEST PROJECT AWARDS		
	CDS	EDS	MDS
			
AJAI BABU A MDS13M002	RUSAN KUMAR BARIK CDS13M010	S DINESH KUMAR EDS13M012	RAJ RAUJI DESAI MDS13M013

STUDENTS WHO RECEIVED THE DEGREE WITH DISTINCTION (PG - M. Des)

Roll No	Name	Branch	CGPA
MDS13M002	AJAI BABU. A	MDS	9.51
MDS13M013	RAJ RAUJI DESAI	MDS	9.45

*Prize
Winners*

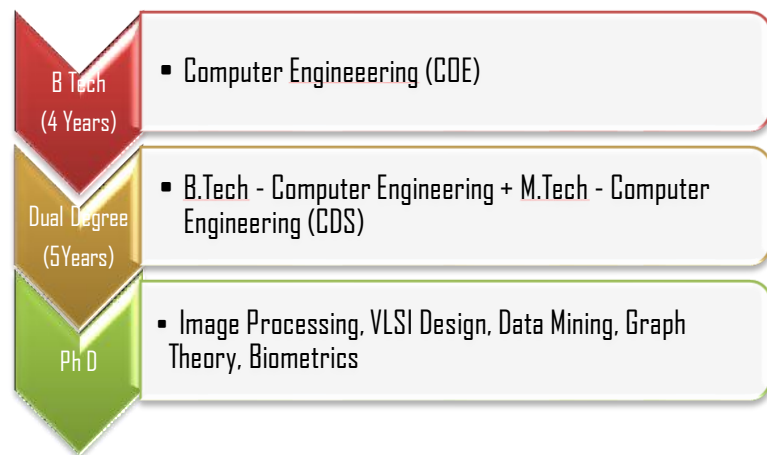
STUDENTS WHO RECEIVED THE DEGREE WITH DISTINCTION (UG - B. Tech)

Roll No	Name	Branch	CGPA
EDM11B001	ADITYA NARAYANAN	EDM	9.77
MDM11B013	KUMBHAR PRAMOD YALLAPPA	MDM	9.68
MDM11B025	SAGAR DOLAS	MDM	9.24
COE11B016	KRISHNA CHAURASIA	COE	9.22
EDM11B025	SWETHA M MANUR	EDM	9.10
EDM11B012	M ASHWINI	EDM	9.06
EDM11B026	TUMMALA NIKHILA	EDM	9.06
EDM11B015	NIKHIL SHARMA	EDM	9.01

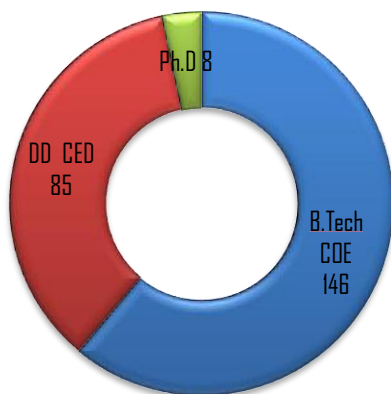
Computer Engineering

B.Tech and Dual Degree Computer Engineering curriculum at IIITDM Kancheepuram is modelled on the ACM (Association for Computing Machinery) 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.

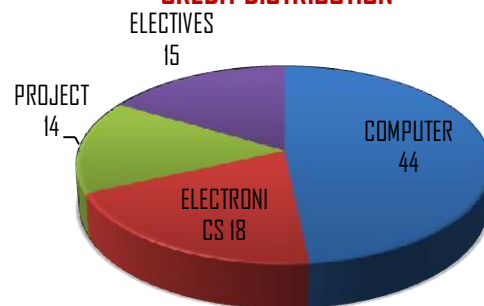
Streams



STUDENT STRENGTH



CORE ENGINEERING CREDIT DISTRIBUTION



Computer Engineering Faculty



Masilamani V.
PhD (IIT Madras)
Research Interests:
Image Processing,
Computer Vision,
Data Structures and Algorithms



Sadagopan N.
PhD (IIT Madras)
Research Interests:
Graph Theory and
Combinatorics, Data Structures
and Algorithms, Computer
Networks, Database Systems



Nargis Pervin
PhD (National Univ of Singapore)
Research Interests:
Social Network Mining,
Big Data Analysis,
Econometric Modeling,
Recomender system



Sivaselvan B.
PhD (NIT Trichy)
Research Interests:
Knowledge and Data
Engineering,
Usability Engineering,
Human Computer Interaction



Noor Mahammad S. K.
PhD (IIT Madras)
Research Interests:
Software for VLSI Design,
Evolvable Hardware,
Open Flow Networks,
Network-on-Chip (NoC)



Umarani J.
PhD (IIT Kanpur)
Research Interests:
Biometrics, Pattern Recognition,
Computer Vision and
Digital Image Processing

Doctoral Research Scholars	Topic of Research
Ayesha SK	Hardware Implementation of Image Security Algorithms
Kanjar De	No-reference Image Quality Assessment Algorithms
Manikandan V.M	Digital Image Security Through Watermarking
Oswald C	Frequent Pattern Mining(FPM) perspective of Data Compression
Renjith P.	Hamiltonian Problem and Generalization
Shanmugakumar M	Programmable Network System Design For High Speed Packet Classification
Veeramani S	High Speed IP Lookup For Software Defined Networks
Veegsna S M Srinivasavarma	Instrusion Detection Systems



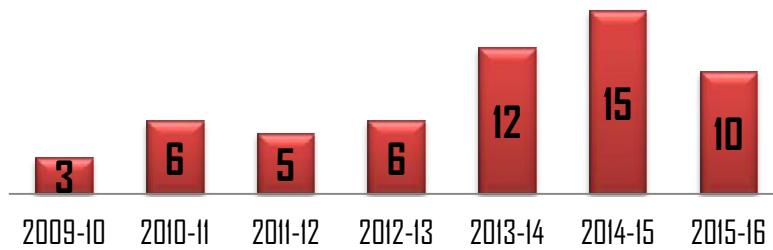
Computer Engineering

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
- Data Structures and Algorithms

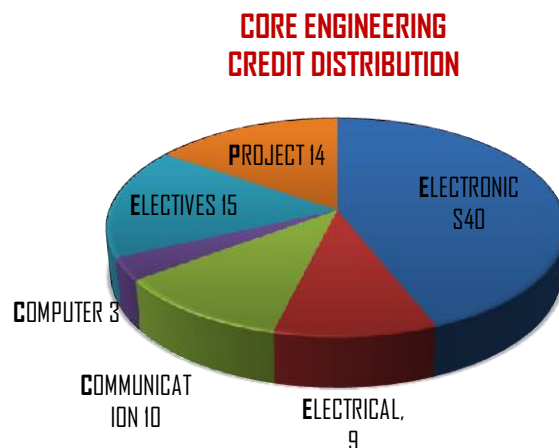
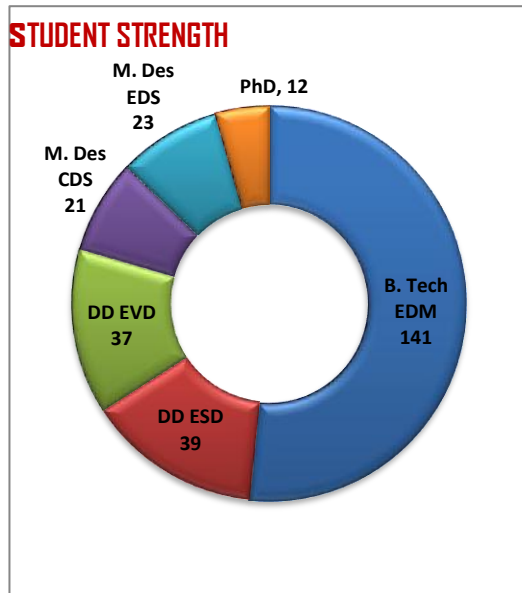
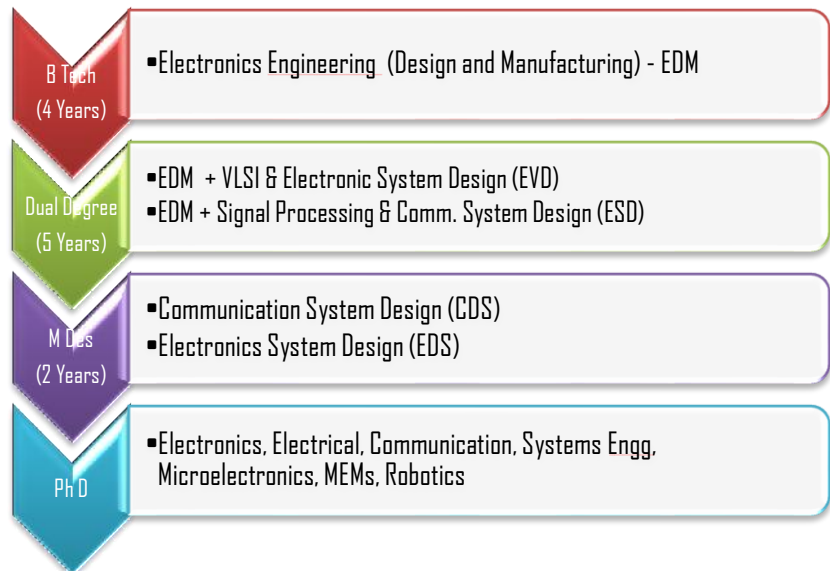
Research Publications



Electronics Engineering

Electronic product design and development in today's scenario requires the skillful blend of expert hardware and software engineering knowledge with a spirit of creativity and innovation, tempered by the practical concerns of manufacturability, cost consciousness and reliability. The Undergraduate (B.Tech), Dual Degree (B.Tech + M. Tech) and Postgraduate (M.Des) programs offered 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 supplement the conventional core curriculum courses with specialized design courses required for practicing designers both from product design and domain areas.

Streams



Electronics Engineering Faculty



Binsu J. kailath
PhD (IIT Madras)
Research Interests:
VLSI Design,
MOS Device Modeling and
Technology, MEMS



Priyanka Kokil
PhD (NIT Allahabad)
Research Interests:
Nonlinear System,
Delayed System,
Multidimensional System



Damodharan P.
PhD (IIT Madras)
Research Interests:
Power Electronics and Drives,
Permanent Magnet Brushless
DC and AC Drives



Selvajyothi K.
PhD (IIT Madras)
Research Interests:
Power Electronics, Drives and
Control, DSP Realization of
Control Algorithms in Power
Electronics, FPGA/DSP Hardware



Karthikeyan S. S.
PhD (IIT Guwahati)
Research Interests:
Microwave Passive Devices,
Microstrip Antennas,
Metamaterials



Selvaraj M. D.
PhD (IIT Delhi)
Research Interests:
Wireless Communications,
Cooperative Diversity,
Mobile Communications

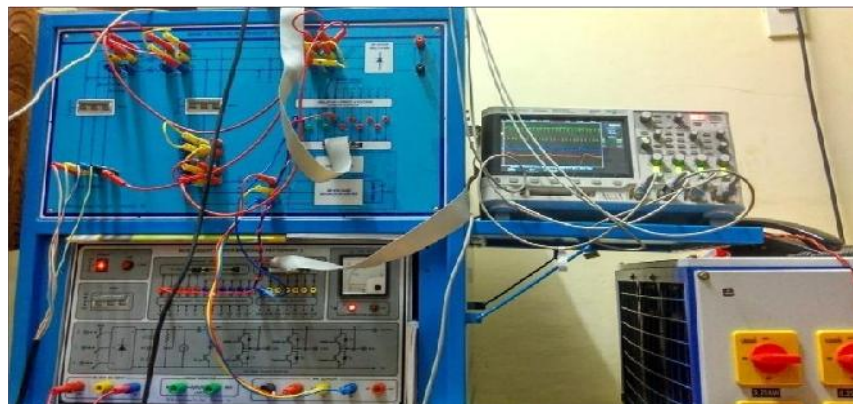
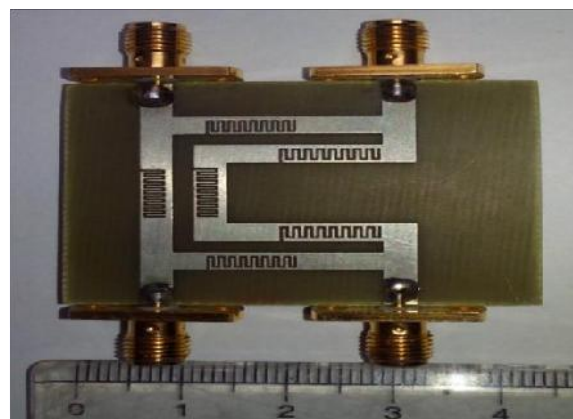


Premkumar K.
PhD (IISc Bangalore)
Research Interests:
Scheduling in Networks, Social
Networks, Cognitive Radio,
Internet of Things,
Big Data Analytics



S. R. Pandian
PhD (IIT Delhi)
Research Interests:
Autonomous Underwater Robots,
Robot Design,
Electromechanical Systems

Doctoral Research Scholar	Topic of Research
Abdul Majeed K K	Design and Analysis of Different PFD Architecture for Fast and Low Phase Noise PLL
Anant H.A	Cooperative Perspective of Spatial Modulation
Arun.K	Estimation and Control of Grid Parameters under Harmonically Distorted Environment
Chandu D S	Design And Development of Ultra wideband Microstrip Antennas
Dinesh.G	Switched Capacitor based Sigma Delta ADC Design
Dony J. Muttath	Content Filtering in Social Networks
Maheswaran. P	Performance analysis of spatial modulation and space shift keying
Papanasam.E	Fabrication and characterization of SiC MIS capacitor with high-K dielectric
Phani Kumar K V	Design, analysis and characterization of RF/Microwave devices
Rusan Kumar Barik	Design of multi-band RF/Microwave components
Xavier arockiaraj S	Elimination of overflow oscillations in fixed point digital filters with disturbances
Santhosh Kumar M	Learning Based MAC Protocols for Cognitive Radio Networks



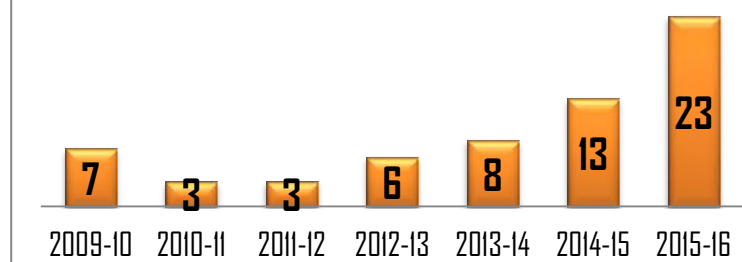


Electronics Engineering

Laboratories

- Electrical Drives
- Analog Circuits
- Digital Signal Processing
- Product Design
- Sensing and Instrumentation
- Digital Logic Design
- Microprocessors and Microcontrollers
- Communication Systems
- PCB Design
- VLSI Design
- Embedded Systems

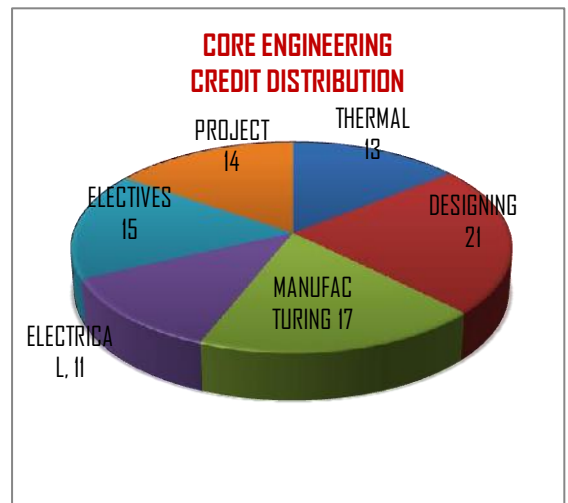
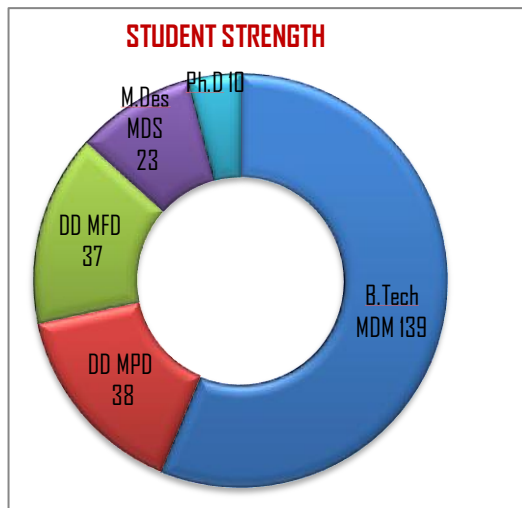
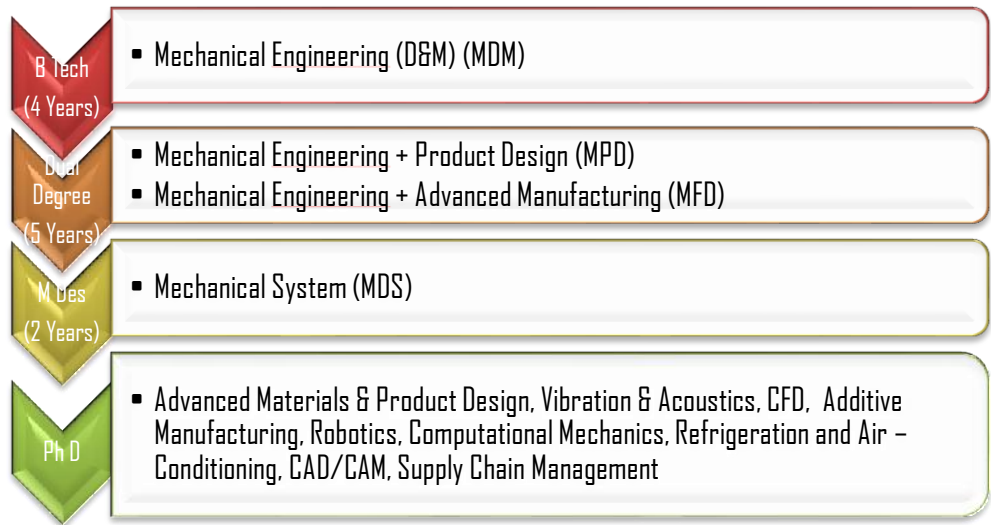
Research Publications



Mechanical Engineering

The UG, Dual Degree, PG, PhD programs offered by the Mechanical Engineering stream augment 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 mechanical 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.

Streams



Mechanical Engineering Faculty



Chandrasekaran C,
PhD (IIT Madras)
Research Interests:
Product Development,
Process Planning, Quality
Control and Quality Assurance



Narayanan, S,
PhD (IIT Kanpur)
Research Interests:
Vibrations and Acoustics,
Dynamical Systems,
Smart Structures.



Gnanamoorthy R,
Dr. Eng. (NUT, Japan)
Research Interests:
Mechanical Design with
Advanced Materials, Novel
Manufacturing Process
Development.



Pandithevan P.
PhD (IIT Guwahati)
Research Interests:
Engineering Design, Medical
Image based Reconstruction,
Bio-mimetic Design & Tissue
Engineering.



Jayabal K.
PhD (IIT Madras)
Research Interests:
Computational Mechanics,
Finite Element Methods,
Material Modelling



Raja B.
PhD (Anna University, Chennai)
Research Interests:
Nanofluids,
Enhanced Heat Transfer,
Electronic Cooling Systems



Jayavel S,
PhD (IIT Madras)
Research Interests:
Computational Fluid Dynamics,
Fluid and Thermal Sciences,
Heat Transfer



Senthilkumar K.
PhD (IIT Delhi)
Research Interests:
Additive Manufacturing,
Sustainable Manufacturing,
Design Manufacturing
Integration, Smart
Manufacturing



Shahul Hamid Khan
PhD (NIT Trichy)
Research Interests:
Multi Objective Optimisation,
Supply Chain Management,
Metaheuristics



Sudhir Varadarajan,
PhD (IIT Madras)
Research Interests:
Complex responsive processes
in design and innovation,
Product/service innovation,
Conceptual design



Sreekumar M.
PhD (IIT Madras)
Research Interests:
Robotics,
Serial and Parallel Mechanisms,
Compliant Mechanisms



Venkata Timmaraju Mallina
Ph.D(IIT Madras)
Research Interests:
Modeling of Materials Behavior,
Fatigue and Fracture,
Design with Polymers and
Composites

Doctoral Research Scholar	Topic of Research
Balaji K	Robotics
Deepakkumar.R	Numerical Investigation On Performance Of Finned-Tube Heat Exchanger With Hybrid Rows Of Tubes
Hemnath A K	Experimental analysis on the properties of the products made from metal deposition technique.
Santhosh S	Modeling and Optimizing Closed-Loop Green Supply Chain Network Design with Disassembly Line Balancing
Sathish Kumar.R	Development and Application of Material Models for Magnetostrictive Materials
Senthil kumar.R	Numerical and Experimental Study of Heat Transfer Enhancement in Electronic Systems
Vinayaga Muruga Pandey.N	Development Of A Computer-Assisted, Pre-Operative Surgical Methodology For Orthopaedic Applications
Usha S	Robotics, Mechanisms
Gurunathan C	Mechanical Design & Analysis
Srinivasan G	Freeze drying and sublimation

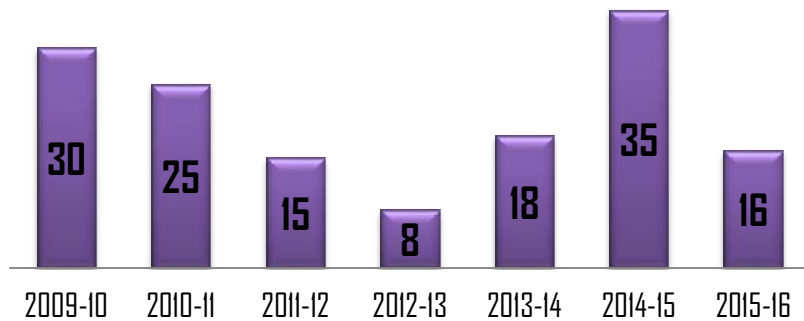


Laboratories

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

Mechanical Engineering

Research Publications



Basic Sciences

Faculty

MATHEMATICS



Shalu M. A.
PhD (IIT Madras)
Research Interests:
Graph Theory,
Algorithms,
Metabolic Networks



Vijayakumar S.
PhD (IIT Madras)
Research Interests:
Algorithms,
Combinatorial Optimization,
Computational Complexity



Vijayarangan N.
PhD (Ramanujan Inst for Adv
Study in Mathematics, Chennai)
Research Interests:
Applications of Jordan and Lie
algebras, Number Theory
Applications in Cryptography,
Game Theory

PHYSICS



Naveen Kumar
PhD (IIT Delhi)
Research Interests:
Fiber Optics, Solar Thermal
Energy Applications,
Renewable Energy
Applications



Tapas Sil
PhD (VisvaBharati Univ)
Research Interests:
Giant Resonances of Nuclei,
Relativistic Mean Field Theory
in Nuclear Structure,
Properties of Hot Nuclei

Doctoral Research Scholar	Topic of Research
Ashish Kumar	Optical Fiber Micro-Wire and Nano-Wire Based Sensors/Devices For Communication and Sensing Applications
Manimegalai K	Study of properties of nuclei away from the line of stability and nuclei in the environment of neutron star
Sandhya T P	Color domination and star coloring
Dhanalakshmi S	Study of Vertex Separators, Connectivity Augmentation and Constrained Vertex Separators



Laboratories

- Mechanics and Wave
- Electromagnetics & Quantum Mechanics
- Basic Materials and Mechanics
- Measurements and Data Analysis



Institute Library



Institute Library

The fully equipped transit Library has an excellent collection of books, printed journals, magazines, leading newspapers, e-journals and softcopy of NPTEL course materials and video contents and is committed to support the institute's mission. The Library is one among the few in the world to lend Kindle, electronic book reader, to needy students where a plenty classical literature and technical books are available. This knowledge plaza is expected to move to its permanent location in July 2016 with G+2 fully air-conditioned space. The Library uses an automated Library and Information Management software KOHA with Integrated RFID Technology. All the registered users can access the institute Library from anywhere within the campus through LAN/WiFi.

The Library maintains a separate collection of reference books. The Library follows the Machine Readable Catalogue (MARC 21) standard for cataloguing and Universal Decimal Classification (UDC) scheme for classification of library documents.

The institute is one of the core members of Indian National Digital Library in Engineering Sciences and Technology (INDEST) consortium and has subscribed to nearly 600 e-journals, conference proceedings, standards, viz IEL (IEEE & IEE) and Elsevier Science Direct Links.

Resources	Total Numbers	Newly Added (Apr' 15 - Mar' 16)
Books	4853	830
Journals/Magazines (print version)	50	10
News Papers	04	-
CD-ROM/DVDs	588	95
Theses and Dissertation	261	41
E-Books	22	22
E-Journals	1130	renewed
Elsevier Science Direct - 632		
IEEE Xplore IEL Online - 498		
Gratis	231	122



Book Fair 2015

In order to encourage students to procure text books and other books for professional development, a Book Fair was organized during 28-29, July, 2015. In this Book Fair, seven vendors/suppliers participated and displayed their books. A large number of students and faculty members of IIITDM academic community visited and procured books and recommended to purchase for the library.

Institute Library

Trial Access for IET.tv

IIITDM Library has obtained a trial access for [IET.TV](#). It has a collection of over thousands of video presentations and news in the field of engineering and technology. The contents are compiled by the IET (Institution of Engineering and Technology) as follows:

- Events, lectures and training videos,
- Interviews with experts from industry and academia,
- Reports, news and commentary from around the globe,
- Recommended videos from other sources,

The content is fully searchable content with eight specialized channels, including Manufacturing, Electronics, Communications and IT.

International Interaction



International Interaction

Although it is a challenge for young Institutes to gain international recognition, our interactions with Nagaoka University of Technology, Japan, reached new heights with the award of prestigious MEXT Fellowship to this Japanese University. The five- year support under this scheme facilitates more student and faculty exchange with IIITDM. As a part of this activity, two professors from IIT Madras and Director, IIITDM Kancheepuram visited Nagaoka University of Technology to make initial arrangements. Many Japanese faculty visited IIITDM to interact with faculty and students of the institute. Two PhD scholars and one PG student carried out part of their project works with support from MEXT.

IIITDM also accommodated two Japanese final year UG students for carrying out their intern projects under IIITDM faculty supervision for five months.

The research collaboration under UKERI project also saw student and faculty exchange with University of Edinburgh, Scotland, U.K and Heriot-Watt University, UK. Faculty and students attended various seminars arranged in Heriot-Watt University and The University of Edinburgh and got an insight into the lab facilities available at the University of Edinburgh.

The University of Genoa, Italy has awarded their fellowship for carrying out research on "Control and operation in a multi- agent fixturing system with swarm control".

III RESEARCH AND INNOVATION



Science is a way of life. Science is a perspective. Science is the process that takes us from confusion to understanding in a manner that is precise, predictive and reliable - a transformation, for those lucky enough to experience it, that is empowering and emotional.

- Brian Greene

Publications 2015-16

Books:

- N. Vijayarangan, SSMAC: Digital and Automation, MKCE & LinkedIn, 2015.

Journal Publications:

- Jaiswal Sanket and Muthuswamy Sreekumar, Instability analysis of mosquito fascicle under compressive load with vibrations and microneedle design, Journal of Bionic Engineering, vol. 12, pp. 443-452, 2015.
- Hema Rajesh and M. Sreekumar, Design and Simulation of a Novel Hybrid Leaf Spring with Embedded Cylindrical Structures, International Journal of Heavy Vehicle Systems, vol. 23, pp. 131-154, 2016.
- Koh, KengHuat, Muthuswamy Sreekumar, and S. G.Ponnambalam, Hybrid electrostatic and elastomer adhesion mechanism for wall climbing robot with biomimetic tail design, Mechatronics (Article in Press, doi:10.1016/j.mechatronics.2016.02.001) 2016.
- G. Narendran, K. Ramachandran, and Naveen Kumar, An inline sensing of coolant temperature in micro-channels for applications in ultra dense packed high power electronics, Optik, vol. 127, pp. 871-875, 2016.
- Ayesha Shaik and Vedhanayagam Masilamani, A Robust Digital Image Watermarking based on Singular Value Decomposition and Tabu-Search, IIOAB Journal, vol. 6, no. 3, pp. 1-12, 2015.
- K Arun and K Selvajothi, Cascaded Delayed Signal Cancellation based Variable Sampling SRF PLL, The Mediterranean Journal of Measurement and Control, vol. 12, no. 1, pp. 511-520, 2016.
- RajinM. Linus and Perumal Damodharan, Maximum power point tracking method using a modified perturb and observe algorithm for grid connected wind energy conversion systems, IET Renewable Power Generation, vol. 9, no. 6, pp. 682-689, 2015.
- RajinM. Linus and Perumal Damodharan, Wind Velocity Sensorless Maximum Power Point Tracking Algorithm in Grid-connected Wind Energy Conversion System, Electric Power Components and Systems, vol. 43, no. 15, pp. 1761-1770, 2015.
- V.Umesh and B.Raja, A study on nucleate boiling heat transfer characteristics of pentane and CuO-pentane nanofluid on smooth and milled surfaces, Experimental Thermal and Fluid Science, vol. 64, pp. 23-29, 2015.
- V.Umesh, S.Bala Vignesh, and B.Raja, A study on nucleate boiling heat transfer characteristics of acetone on smooth and indented surfaces, Experimental Heat Transfer, pp. 1-12, 2015.
- Mohamed Asan Basiri M and Noor Mohammad S. K., Configurable Folded IIR Filter Design, IEEE Transactions on Circuits and Systems II: Express Briefs, vol. 62, no. 12, pp. 1144-1148, 2015.

Publications

- S. S. Karthikeyan and R. S. Kshetrimayum, Compact and Wide Stopband Lowpass Filter Using Open Complementary Split Ring Resonator and Defected Ground Structure, *Radio engineering*, vol. 24, no. 3, pp. 708-711, 2015.
- K.V. Phani Kumar and S. S. Karthikeyan, A Compact 1:4 Lossless T-Junction Power Divider Using Open Complementary Split Ring Resonator, *Radio engineering*, vol. 24, no. 3, pp. 717-721, 2015.
- K.V. Phani Kumar and S. S. Karthikeyan, Wideband three section branch line coupler using triple open complementary split ring resonator and open stubs, *International Journal of Electronics and Communications*, vol. 69, no. 8, pp. 1412-1416, 2015.
- P. Maheswaran and M. D. Selvaraj, Performance analysis of feedback based dynamic SSK-BPSK system, *IEEE Wireless Communication Letters*, vol. 5, pp. 96-99, 2016.
- P. Maheswaran and M. D. Selvaraj, Time successive SSK-MPSK: A system model to achieve transmit diversity), *IEEE Communication Letters*, vol. 19, pp. 1496-1499, 2015.
- R. Swaminathan, M. D. Selvaraj, and R. Roy, On the error and outage performance of decode-and-forward cooperative selection diversity system with correlated links, *IEEE Transactions on Vehicular Technology*, vol. 64, pp. 3578-3593, 2015.
- Seung-Jun Shin, Jungyub Woo, Duck Bong Kim, Senthilkumaran Kumaraguru, and Rachuri, Sudarsan, Developing a virtual machining model to generate MTConnect machine-monitoring data from STEP-NC, *International Journal of Production Research*, pp. 1-19, 2015.

Publications

Conference Publications:

- Gourav Pandey and Sreekumar M, Development of High Strength Bio-Composite Material for Light Weight Serial Robot Mechanisms, *Procedia Computer Science*, vol. 76, pp. 512-521, 2015.
- Chandrasekar E and Sreekumar M, Implementation of a Simplified Modeling Scheme for the Control of SMA Actuators using LabVIEW, *Proc. 10th International Symposium of Mechatronics and its Applications (IEEE-ISMA15)*, 978-1-4673-7796-6, pp. 1-6, 2015.
- A. Kumar and B. J. Kailath, Design of 3 stage high frequency CMOS voltage controlled oscillator, *IEEE EDSSC 2015, IEEE International Conference on Electron Devices and Solid-State Circuits*, 978-1-4799-8362-9, DOI: 10.1109/EDSSC.2015.7285038, pp. 17 – 20, 2015.
- Abdul Majeed K. K. and Binsu J. Kailath, CMOS Current Starved Voltage Controlled Oscillator Circuit for a Fast Locking PLL, *12th IEEE India International Conference, INDICON 2015*, 978-1-4673-7398-2, DOI: 10.1109/INDICON.2015.7443525, pp. 1-5, 2015.
- E. Papanasam and Binsu J. Kailath, Electrical Characteristics of Pd/Al₂O₃/6H-SiC MIS Capacitors), *National Conference on Semiconductor Materials and Devices*, 2016.
- Sanket Patil and Naveen Kumar, Sun Light Transmission through Silica Optical Fibers for Lighting: An Experimental Study, *International Conference on Advances in Energy Research 2015*, pp. 133-135, 2015.

Publications

- Kanjar De and Masilamani V, Image Quality Assessment for Blurred Images using Non-sub-sampled Contour let Transform Features, Proc. Of ICCSI 2015, NTU, Singapore, pp. 84-91, 2015.
- Shaik, Ayesha, and V. Masilamani, Secure Video Watermarking Technique Using Cohen-Daubechies-Feauveau Wavelet and Gollman Cascade Filtered Feedback Carry Shift Register (F-FCSR), In Proceedings of the 3rd International Symposium on Big Data and Cloud Computing Challenges (ISBCC16), pp. 111-118, 2016.
- Kanjar De, and V. Masilamani, Discrete Orthogonal Moments Based Framework for Assessing Blurriness of Camera Captured Document Images, In Proceedings of the 3rd International Symposium on Big Data and Cloud Computing Challenges (ISBCC 16) pp. 227-236, 2016.
- V.M. Manikandan and V. Masilamani, Real-Time Scene Change Detection and Entropy Based Semi-Fragile Watermarking Scheme for Surveillance Video Authentication, In Proceedings of the 3rd International Symposium on Big Data and Cloud Computing Challenges (ISBCC16), pp. 101-110, 2016.
- Ankith Vinayachandran and K. Selvajothi, Modeling and Simulation of a Novel Three Phase Discrete Observer, Proceedings of 2nd International conference on Control, Instrumentation, Energy and Communication, Kolkata, India, 2016.
- Rajin M. Linus and P. Damodharan, Maximum Power Point Tracking of PMSG based Grid Connected WECS using Quadrature Axis Current, 4th International Conference on Renewable Energy Research and Applications, pp. 671-676, 2015.
- R. Deepakkumar and S. Jayavel, Numerical investigation on performance of finned-tube heat exchanger with hybrid rows of tubes, 23rd National Heat and Mass Transfer Conference and 1st International ISHMT-ASTFE Heat and Mass Transfer Conference, IHMTG2015, ISRO Thiruvananthapuram, 2015.
- K. Meghana Sarat and S. Jayavel, Numerical study of laminar flow characteristics for flow past rotating cylinders, Forty Second National Conference on Fluid Mechanics and Fluid Power (FMFP2015), NITK Surathkal, December 14-16, 2015.
- R. Deepakkumar and S. Jayavel, Numerical study on laminar flow characteristics for flow past cross-confined hybrid rows of tubes, Forty Second National Conference on Fluid Mechanics and Fluid Power (FMFP2015), NITK Surathkal, December 14-16, 2015.
- R. Deepakkumar, S. Jayavel, and Shaligram Tiwari, Computational study of fluid flow characteristics due to confining walls with local waviness, XXVII IUPAP Conference on Computational Physics: CCP2015, IIT Guwahati, December 2-5, 2015.
- R. Deepakkumar, A. Jaganathan and S. Jayavel, Performance assessment of heat exchanger with airfoil pin-fin inserts, 5th International Conference on Advances in Energy Research (ICAER-2015), IIT Bombay, December 15-17, 2015.
- S. Dinesh Kumar and Noor Mohammad S. K., A Novel Adiabatic SRAM Cell Implementation using Split Level Charge Recovery Logic, 19th IEEE International Symposium on VLSI Design and Test (VDAT), 2015.

Publications

- Addanki Sai Charan, Vegesna Srinivasaverma S. M., and Noor Mohammad S. K., Lifeline System for Fisherman, *Microelectronics, Electromagnetics and Telecommunications: Proceedings of ICMEET 2015*, pp. 583–592, 2015.
- Gantasala Sai Hemanth and Noor Mohammad, S. K., An Efficient Virtualization Server Infrastructure for e-Schools of India, *Third International Conference on Information Systems Design and Intelligent Applications (INDIA 2016)*, 2016.
- Mohamed Asan Basiri M and Noor Mohammad S. K., An Efficient VLSI Architecture for Discrete Hadamard Transform, *29th IEEE International Conference on VLSI Design and 15th International Conference on Embedded Systems (VLSID)*, 2016.
- Pandithevan P, Probabilistic approach in modelling functionally blended objects, *International conference on applied and computational mechanics*, 2015.
- Pandithevan P and Joshi M, Dynamic analysis on orthogonal cutting of Ti-6Al-4V and steel 316L biomaterials, *International conference on applied and computational mechanics*, 2015.
- Rusan Kumar Barik, K. V. Phani Kumar, and S. S. Karthikeyan, Compact Wideband 3dB Branch Line Coupler with Multiple Symmetric PI Section, *45th European Microwave Conference*, 2015.
- Pradyumna Kumar Bishoyi and S. S. Karthikeyan, Design of a Two Stage Ku Band Low Noise Amplifier for Satellite Applications, *International Conference on Communication and Signal Processing*, 2015.
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- Rusan Kumar Barik, Pradyumna Kumar Bishoyi, and S. S. Karthikeyan, Design of a Novel Dual-band Impedance Transformer, *ICONECT 2015*.
- B. Purushothaman, K.V. Phanikumar, and S.S. Karthikeyan, Dual-Band Bandstop Filter Using Single Tri-section Stepped Impedance Open Stub, *ICMAP 2015*.
- Rusan Kumar Barik and S. S. Karthikeyan, Design of a Novel Dual-band Impedance Transformer using Coupled Lines, *AEMC 2015*.
- Mallina Venkata Timmaraju, Sagnic Chatterjee, Tomohito Katano, and Sriharsha Ganajanaboyina, Prediction of influence of organoclay and imbibed moisture on the behavior of polyamide 66/organoclay nanocomposites during cyclic straining, *International Conference on Computer Aided Engineering (CAE-2015)*, 2015.
- S. R. Pandian, Building a Smart Mosquito Trap - Intelligent Mechatronics for Mosquito Control Research, *International Conference on Emerging Trends in Engineering, Technology, and Science*, 2016.
- Kiran Pattanashetty, Web-Based Physics Experiment in Dynamics Using Image Processing, *International Conference on Advances in Computing and Wireless Technologies*, 2016.
- S. Barai, D. S. Sunil, S. R. Kumar, and S. R. Pandian, Virtual gaming-based human energy harvesting, *International Conclave on Renewable Energy Systems and Technology*, 2016.

Sponsored Research

Sponsored Research

- Speech Recognition System on FPGA Evaluation Board, PLL Design and Sigma Delta ADC Design
Principal Investigators : Dr. Noor Mohammad, Dr. Binsu J. Kailath
Sponsor : Dept. of Electronics and Information Technology
Ministry of Communications and IT, Govt. of India
Duration : 5 years
Value : 94 lakhs
- Design and development of energy efficient freeze dryer with multiport mini-channel shelf heat exchanger
Principal Investigator : Dr. B. Raja
Sponsor :
Duration : 3 years
Value : 27 lakhs
- SMDP C2SD Project
Principal Investigator : Dr. Noor Mohammad S. K.
Sponsor : DEITY, Govt. of India
Duration : 5 years
Value : 94 Lakhs
- Visveswaraya PhD Scheme
Principal Investigator : Dr. Noor Mohammad S. K.
Sponsor : DEITY, Govt. of India
Duration : 8 Years
Value : 51 Lakhs
- Rural and Remote Ubiquitous Broadband Wireless Access
Principal Investigator : Dr. M. D. Selvaraj,
Sponsor : UKIERI, British Council
Duration : 2 years
Value : 14 Lakhs
- Teaching Learning Centre for Design and Manufacturing Education
Principal Investigator : Dr. S. R. Pandian
Sponsor : MHRD, Govt. of India
Duration : 2 years
Value : Rs 1.95 crores
- Affordable Smart Mosquito Trap for in situ Automated Monitoring
Principal Investigator : Dr. S. R. Pandian and Dr. N. Arunachalam
Sponsor : ICMR Intramural Grant
Duration : 1 year,
Value : Rs 5 lakhs

Innovations



Web-based teleoperation of remotely operated vehicle

The ROV is planned to be used for environmental monitoring and archaeological surveys. The AUV version will be used for research on coordinated vehicle-manipulator system control and navigation. The project also incorporates schools outreach, in which children will be able to go online and control the vehicle in the test tank in the Designers Club.

Mobile phone app operated and computer controlled mobile robots

Smart phone app and computer controlled mobile robots were demonstrated at the Republic Day function in campus on January 26, 2016 and were appreciated by the audience. The demo again received wide media publicity

Autonomous mobile robot for outdoor navigation

The autonomous mobile robot for outdoor navigation uses on-board sensors such as GPS, Lidar, inertial motion unit, video and thermal cameras, etc. It will be scaled up to a self-driving vehicle that can take two persons, e.g., visitors and parents/relatives of students to destinations on campus.



Two-link planar robot arm

The system will be used as part of 3-link articulate robot arm, in coordination with a machine vision system, and a conveyor belt, to form a computer integrated manufacturing (CIM) system for lab education.



Mobile robot racing over the Internet

Children in schools in Chennai (or around the country or even overseas) can go online, log onto the TLC Web server, and compete with each other in racing the robots to the finish line, while watching the race video livestream!

Affordable smart trap for mosquito trapping, in situ analysis, and reporting

This research is done in collaboration with ICMR Centre for Research in Medical Entomology, Madurai, and has received an ICMR Intra Mural Grant for prototyping. The traps can be installed in public spaces such as schools and hospitals, and report the trapped mosquito data to public authorities.



Virtual Reality-based Human Energy Harvesting system

The system generates power by children playing video games while pedaling on stationary bikes. VR is used to make the games more lively. The system can be used in schools as backup power source, and in gyms and homes.



Desktop CNC engraver

A low-cost desktop CNC engraver has been developed with off-the-shelf components and open source software. It can also be customized as CNC mill or router for use in lab courses on Manufacturing Technology for hands-on instruction, e.g., CAD/CAM/CNC machining.



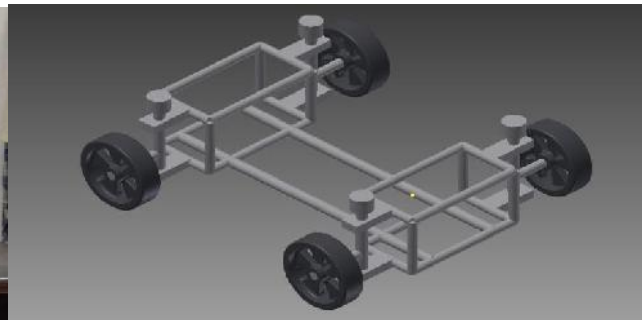
Plastic-coin exchanger

A working prototype of a cost and space efficient Plastic - Coin Exchanger alias RVM (Reverse Vending Machine) is successfully modelled, fabricated and assembled. This product is a complete novel idea of designing an RVM suitable for developing countries.

Steering mechanism for effective parking of cars

The parking space for cars can be improved by using this mechanism. The increase in turning radius helps the car to align perpendicularly and reduce parking space. Control of the system is first observed and checked using "proteus software". Proposed design considerations are met without any major changes.

Innovations



Guest Lectures

Speaker	Title of the Talk	Month & Year
Prof. V. R. K. Murthy, Professor, IIT Madras	Next Generation RF and Wireless Technologies for Rural India	June. 2015
Shri. Mark North, TIMES	Career options after engineering	Aug. 2015
Ms. Padmavathy Chandramouli, Information and Office Manager, DAAD	Information lecture on Higher education and research opportunities in Germany	Sep. 2015
Dr. N. Vijayarangan, Senior Scientist, TCS	"A role of SSMAC" (security, social, mobile, analytics and cloud)	Sep. 2015
Prof. Devdas Menon, IIT Madras	Finding fulfillment in Work and Life	Sep. 2015
Mr. Sathiyaseelan, General Manager – Styling, Ashok Leyland	CV design where form and function merge together	Sep. 2015
Mr. Manikandan Thanggarathnam, Director, Kindle Device Software group, Amazon	Disruptive Innovations at large scale	Oct. 2015
Mr. S. Viswesh, Managing Director, SVP Laser Technologies Pvt Ltd	Low cost automation. Manufacturing, New Product Development	Nov. 2015
Dr. M. Jayaprakash, Associate Professor, NUT, Nagoaka, Japan.	Invitation to Japan (NUT) for Internship and Joint research	Nov. 2015
Dr. Prabhu Manyem Nanchang Institute of Technology, China	A Model for Adaptive Rescheduling of Flights in Emergencies	Feb. 2016
Prof. Venkatesh Rajamanickam, IIT Bombay	Introduction Human Computer Interaction (HCI Workshop)	Mar. 2016
Prof. Paul Joseph	Product Development	Mar. 2016
Prof. Narayanan, CICC Singapore	Asia OSS Master Trainers Workshop	Mar. 2016
Dr. Doug Brent Vice President of Technology Innovation, Trimble	Trend Behind The Trend.	Mar. 2016

Guest Lectures - Gallery



Invited Lectures by Institute Faculty

Speaker	Title of the Talk	Month & Year	Place
Dr. K. Premkumar	Energy efficient scheduling in wireless networks	Jul. 2015	IISc Bangalore
Dr. K. Premkumar	Resource allocation in wireless networking	Jul. 2015	National Academy of Sciences
Dr. M. Sreekumar	Intelligent mechatronic systems and actuators	Aug. 2015	IIT Madras
Dr. Naveen Kumar	All-fiber components for applications in DWDM optical networks	Aug. 2015	VIT Chennai
Dr. V. Masilamani	Face recognition	Mar. 2016	VIT Chennai
Dr. V. Masilamani	Decision networks	Sep. 2015	VIT Chennai
Dr. K. Selvajyothi	Observer based control algorithm for estimation of harmonics	Sep. 2015	VIT Chennai
Dr. S. Vijayakumar	Mathematical models in technical writing	Oct. 2015	SSN College of Engg. Chennai
Dr. P. Pandithevan	Computed tomography image enabled geometric modelling methodology	Nov. 2015	VIT Chennai
Dr. S. S. Karthikeyan	Introduction to Terahertz	Sep. 2015	RMKGET Chennai
Dr. K. Senthilkumaran	Principles and classification of 3D digitization techniques	Mar. 2016	VIT University
Dr. J. Umarani	Research prospects in image fusion and registration	Feb. 2016	SSN College of Engg Chennai
Dr. S. R. Pandian	Research in robot vehicles and manipulators, with applications in energy, environment, and education	Jun. 2015	IGCAR, Chennai
Dr. S. R. Pandian	Research in underwater vehicles, and Research Methodology	Jun. 2015	Sri Venkateswara College of Engineering, Tirupathi
Dr. S. R. Pandian	Mechanical Implements for Harvesting Trees, Bamboo, etc	Jan. 2016	State Forest Research Institute, Chennai
Dr. S. R. Pandian	Affordable Smart Mosquito Trap for in situ Automated Monitoring	Jan. 2016	ICMR Centre for Research in Medical Entomology, Madurai
Dr. NargisPervin	Real time data analysis on Twitter	Mar. 2016	VIT Chennai
Dr. N. Vijayarangan	Google glass	Mar. 2016	Sethu Institute of Technology

Workshops



Techniques of Reverse Engineering In Product Development and Manufacturing (TREPDM) 2015.

A one day workshop was organized on July 11, 2015 to share knowledge and experience in the product design and manufacturing community. Totally, 47 participants from all over India attended the workshop. The lectures with case studies were delivered by Dr. G. Saravana Kumar and Dr. P. Sandipan Bandyopadhyay from Department of Engineering Design, IIT Madras, and Dr. P. Pandithevan, Department of Mechanical Engineering, IIITDM Kancheepuram. Apart from the lectures, there were product realization demonstrations using solid free-form fabrication technique. The coordinator intends to extend the frequency of the workshop in the upcoming years as the interests shown by the participants were highly appreciable.

UKIERI Sponsored Two day workshop on Next Generation RF and Wireless Technologies for Rural India, 04 – 05 June, 2015.

A two-day national level workshop was organized in June 2015. Eminent speakers from IIT, NIT and scientific organizations shared their valuable experience and knowledge through invited talks. A huge number of participants (75) from all over India took part in the workshop, and benefited from the speakers.

Human Computer Interaction workshop, 04-05 March, 2016

Human Computer Interaction (HCI) takes a human-centered approach to the design of computer interactions. This workshop introduced students to ethnographic research methods with practical exercises to practice what they have learnt. In addition, the workshop provided, through lecture-discussions, some of the latest trends in HCI for emerging technologies such as mobile devices and the Internet of Things. They highlighted key challenges in the design of interaction for such technologies, and some important perspective shifts that are required while designing them.

Beginners Arduino Workshop

A one day hands-on workshop for beginners on Arduino open source microcontroller for UG and PG students was conducted on October 17, 2015.

Workshops



Class of 2015 Graduates Batch

The Institute placement cell organized campus recruitment process and about 15 companies visited the campus to recruit 2015 graduating students from November 2015 to June 2016. About 80 % of UG students got placed through the Institute placement cell and some more of their own efforts.

Students Pursuing Higher Studies

Siddharth Agarwal, Univ of California San Diego
Suganth Krishna, Univ of California San Diego
Madhu Illuri, Arizona State University
V. Manogna, Arizona State University
Sri Sai Kumar, Univ of North Carolina Charlotte
C. Naveen, IIT Bombay
S. Shaleene, IIT Khargpur
Swaresh Sankalp, IIT Bombay

Sakthi Vel, IIT Roorkee
Krishna Chaurasia, IIT Khargpur
Mohit Singhkhaniya, ISI Kolkatta
Anvitha, IIT Bombay
Aditya Narayanan, IIT Madras
Kavya .P, IIM Calcutta
Ashwini .M, IIM Indore
Sravan .J, IIFT

Major Companies which visited the campus for recruitment:



More than 20 companies visited to recruit the 2016 passing out students, about 105, and 70+ offers were already issued.

Achievements in Academics

Student Achievements

Achievements in Academics

Institute team comprising of Mr Rahul Reddy, Ms Parimala G, Ms Swathi K, Ms Manasa K, and Ms Niharikha S secured FIRST place in Contraptions, SHAASTRA 2015 organized by IIT Madras.

Ms Kalpana won second price for the product "DYNA RACK", in the Innovation & Fabrication Competition, Tata Centre, IIT Mumbai, held in July 2015 and also got the lifetime membership to access the fabrication lab of TATA CENTER in IIT Bombay.

Student team of IIITDM participated in nationwide Indian Engineering Olympiad, held in Feb 2016 and got an all India rank of 64 and city rank 1 in Mechanical Engineering stream.

Mr B. Ananth, was awarded the prestigious Young India Fellowship (YIF is a one-year multidisciplinary postgraduate diploma programme in Liberal Studies). The Fellowship brings together a group of 225 bright young men and women who show exceptional intellectual ability and leadership potential from across the country, and trains them to become socially committed agents of change. Many YIF alumni have gone on to premier global research universities like Cambridge, Harvard, Oxford, Princeton, Stanford and Yale, and been awarded prestigious scholarships, such as the Chevening, Commonwealth, Fulbright and Rhodes Scholarships.

Mr B Ananth was selected for Indian School of Business - Young Leaders Programme. This programme selects an immensely talented group of students and facilitates their mentorship to set them on a path of high performance from the start of their career. These mentored students can join ISB once the mentoring duration of two years is completed successfully.

Student team of IIITDM won the Best Project Award in IRAJ conference held in Chennai on March 20th for designing Virtual reality based human energy harvesting.

Institute team won the award in Worldskills Competition conducted by Ministry of Skill Development and Entrepreneurship.



Achievements in Sports



TWARAN 2016

October – December 2015 saw preparations for participation at Twaran 2016 National Level Sports Festival of IIITM Gwalior, Madhya Pradesh during 23-26 January 2016. Various selection trials and practice sessions were conducted by the PTI in coordination with various student coordinators for each sport. The institute participated in Cricket, Athletics (boys and girls), Football, Basketball (Girls and Boys), Table Tennis (Boys and Girls) and Lawn Tennis (Boys), Volleyball (Boys) respectively. The medal tally is as follows.

*Achievements
in Twaran 2016*

TWARAN 2016 AT IIITM, GWALIOR - WINNERS LIST

SL. NO	EVENT	NAME OF THE PARTICIPANT	POSITION
1.	TENNIS - MEN	Vyas Aditya Kishor	1 ST - GOLD
		G. Sreenivaasan	
		Yash Mehta	
		S. Nitin	
		Parth Lal	
2.	BADMINTON - WOMEN	Shatakshi Gariya	1 ST - GOLD
		B Tejasvi	
		Nayan Adhikrao Mane	
		D. Ravali	
3.	TABLE TENNIS- WOMEN	Nadimpalli Kruthi Manojna	2 ND - SILVER
		Kandukuri Phalguni	
		Aishwarya	
		D. Ravali	
		Sanchi Bhaley	

*Achievements
in Twaran 2016*

4.	CRICKET - MEN	Chetan Soni	2 ND - SILVER
		Solunke Yogesh Shriram	
		Nekkala Ganesh	
		Soumyakanta Pradhan	
		Ramesh S	
		Mogili Adarsh	
		Tupili Sai Manoj Reddy	
		Burugupalli Naveen Kumar	
		Pulugu Vamsi	
		Chawhan Gangaram	
		Komaravolu Krishna Kaushik	
		Katta Koushik Reddy	
		Amarthaluri Sasidhar	
5.	ATHLETICS - 100 WOMEN	Nayan Adhikrao Mane	1 ST - GOLD
6.	ATHLETICS - 200 WOMEN	B Tejasvi	1 ST - GOLD
7.	ATHLETICS - 400 WOMEN	Kandukuri Phalguni Aishwarya	3 RD - BRONZE
8.	ATHLETICS - 800 WOMEN	Shatakshi Gariya	2 ND - SILVER
9.	ATHLETICS-4X100 RELAY WOMEN	Nayan Adhikrao Mane	1 ST - GOLD
		B Tejasvi	
		Kandukuri Phalguni Aishwarya	
		Ganta Bindu	
10.	ATHLETICS-100 MEN	Abhishek Deva	2 ND - SILVER
11.	ATHLETICS - 200 MEN	Ramesh S	1 ST - GOLD
		Abhishek Deva	2 ND - SILVER
12.	ATHLETICS - 400 MEN	Surya Selvam	1 ST - GOLD
13.	ATHLETICS - 800 MEN	Sudhanshu Jaiswal	1 ST - GOLD
		Surya Selvam	3 RD - BRONZE
14.	ATHLETICS - MARATHON	Sudhanshu Jaiswal	1 ST - GOLD
15.	ATHLETICS-4X100 RELAY MEN	Ramesh S	1 ST - GOLD
		Abhishek Deva	
		Surya Selvam	
		Abhilash Joseph Abraham	
16.	CARROM	D. Ravali	1 ST - GOLD

BEST PLAYER AWARDS

TENNIS MEN	BADMINTON WOMEN	ATHLETICS MEN
S.NITIN	B TEJASVI	RAMESH S

MEDAL TALLY

GOLD	SILVER	BRONZE
11	5	2

Other Inter College events:

- Institute Team – Tennis (Men) participated in the Saveetha University tournament and secured Second Position.
- Institute Team – Tennis (Men) participated in the Hindustan University tournament and secured Fourth Position.
- Institute Team – Table Tennis (Women) participated in the Hindustan University Tournament and secured 3rd and 4th Positions
- Institute Team – Table Tennis (Women) IIT Madras Sports Fest Tournament and secured 3rd Positions



IV INFRASTRUCTURE



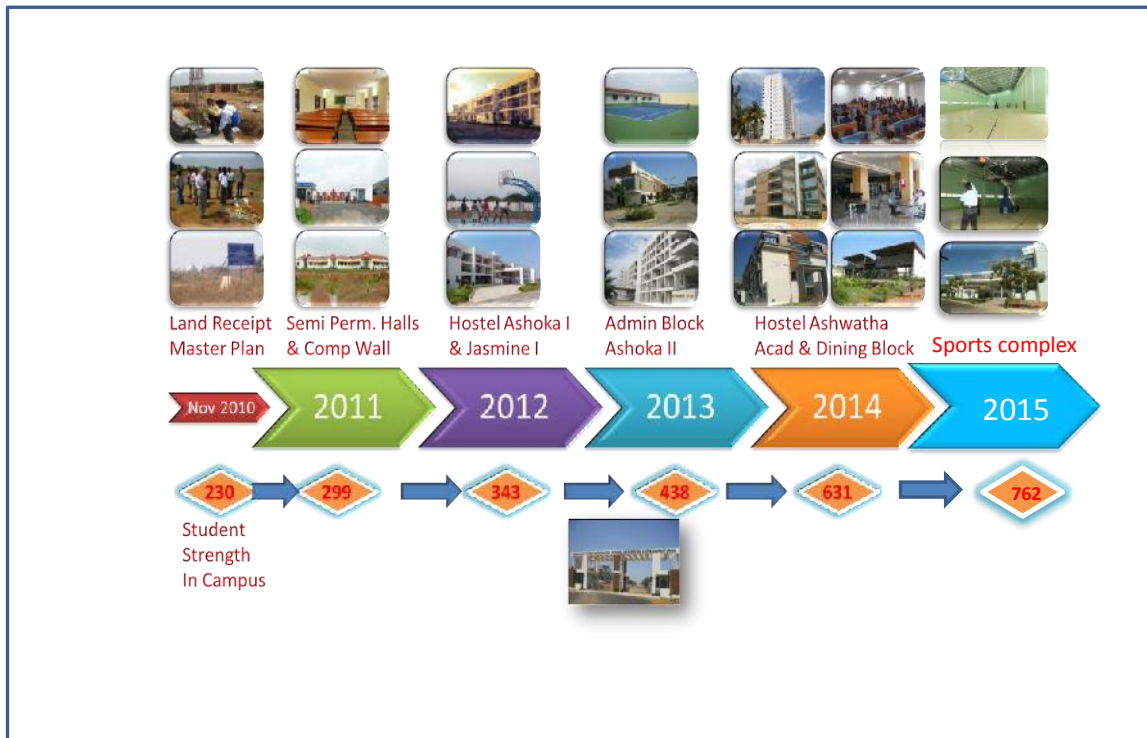
We shape our buildings; thereafter they shape us
- Winston Churchill

Infrastructure Development, an Overview

The land allotted in Nov 2010 by the Govt of Tamilnadu, 51.75 acres, has paved way for the infrastructure development at the permanent campus. The construction activities in the permanent campus have seen steady progress commensurate to the budget granted from the institute inception. A comprehensive masterplan has been developed by experts after a series of brainstorming sessions with the stake holders of the Institute, faculty and students, in 2011. Considering the precious space available for the campus development, a comprehensive and energy efficient masterplan has been developed that can accommodate about 1200 students in Phase I and 5000 students, ultimately. A well thought growth plan was evolved to develop the state of art infrastructure in the live campus without disturbing the academic and student life. About 6000 sqm was constructed within five months from the land allotment and the institute started functioning from Aug 2011 in its own academic and hostel buildings. The student intake was gradually increased with the completion of needed infrastructure in successive years and, in the academic year 2015-16, about 300 students were admitted. At present 75% of the development under Phase-I has been completed.

Infrastructure

IIITD&M Institute Timeline – Permanent Campus



Buildings Commissioned

The state of art Academic Complex was inaugurated in 2014 and is used for all the academic and research activities. This new complex has about 25 class rooms and 12 laboratories to the extent of about 10000 sqm, in addition to the 3000 sqm of laboratory space developed in 2011. All digital classrooms have modern facilities like projectors, AV systems, Wi-Fi connectivity, etc., The Academic Complex also has an Exhibition Hall, UV Drinking water, Wi-Fi corridors, interaction green spaces, vending machine and displays for the convenience of the campus community.

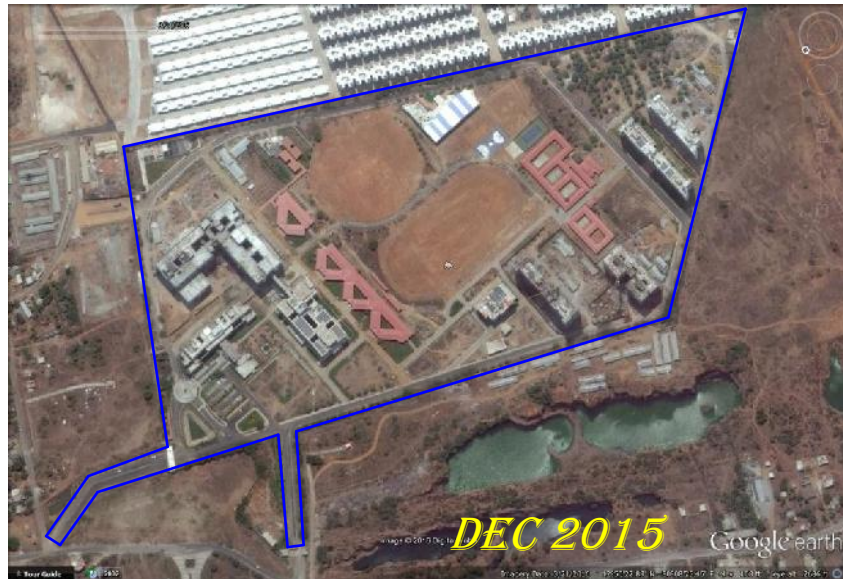
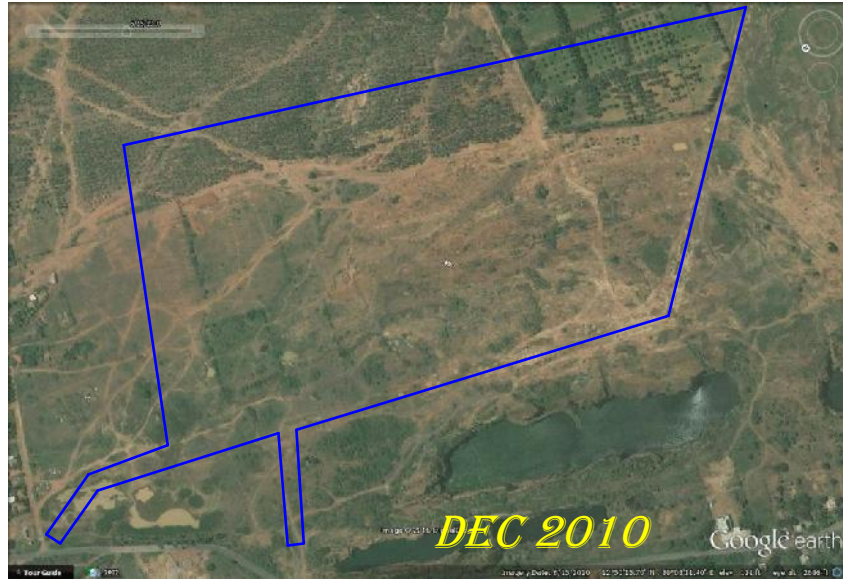
Buildings

The new skyscraper G+14 Aswatha Hostel, inaugurated in 2014, houses all senior students with about 700 beds and has internet connectivity, RO UV water supply, solar water heaters and is disabled friendly. Freshers are accommodated in the Banyan and Lotus Hostels, established in 2011. The new Akshaya G+3 Dining Hall inaugurated in 2014 is utilized by students in addition to the centralized modern cafeteria.

The campus has all modern facilities including a convenient shopping center, ATM, with 24X7 security with modern access control facilities in an unpolluted atmosphere away from the city congestion to provide a calm atmosphere with all modern facilities for comfortable learning.



Remarkable Progress in a Short Span



Infrastructure Developments in 2015-16



The most wanted Indoor Sports Complex, ARJUNA, was dedicated to campus community in April 2015, by Prof M S Ananth, Chairman, BoG. The foundation stone of the ARJUNA was laid by Shri Ashok Thakur, Former Secretary (HE), MHRD, in September 2013. The indoor sports complex has synthetic flooring and sensor operated lighting systems and houses one basketball court, volleyball court, three shuttle courts, weightlifting room, table tennis rooms, and gyms for boys and girls. The squash facility will be dedicated in near future.



The first phase of grid-connected solar rooftop solar photovoltaic power generation units without battery backup to energize the daylight needs of classrooms and laboratories was commissioned in September 2015. The unit was commissioned on the terrace of the Academic Complex.



Two outdoor volleyball courts were also dedicated to students for NSO sports activities which are in addition to existing one each of volleyball and basketball and tennis courts.



The Laboratory Block, comprising of North and South Wing, with about 35000 sqm is nearing completion and the Institute will move to the new block in July 2016. This new block will house the new Teaching Learning Centre, Design Innovation Centre, many faculty cabins, library and many UG and PG laboratories.

The construction activity of the faculty housing is also progressing well and is expected to be completed in the AY 2016-17. A multipurpose auditorium with 800 seats capacity with three 100-seat seminar rooms is also under pipe line.

V Calendar of Events - Institute Celebrations



Life is what you celebrate. All of it. Even it ends.

- **Joanne Harris**

Independence Day

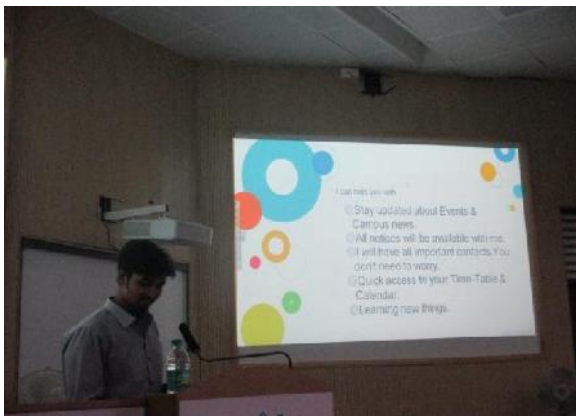


The Director hoisted the flag and delivered the Independence Day speech. A quadcopter-type unmanned aerial vehicle (drone) designed and developed by the Designers Club students received wide publicity when it unfurled the national flag and the news has been published in The Hindu and other news media. Students and staff organized various cultural events and a friendly cricket match was organized between students and staff.



Teachers Day

As part of Teachers Day celebrations, sporting events were conducted amongst the staff and faculty members of the institute. Events were in the following categories: Carrom – Singles (Men & Women), Carrom Doubles (Men), Table Tennis – Singles (Men), Badminton Singles (Men & Women) & Badminton Doubles (Men). The event proved to be a great stress buster and saw serious and active participation by the staff and faculty community. Prizes for winners were distributed on the occasion of Teachers Day 2015 by the guest Prof. Devdas Menon, IIT Madras and Director, IIITDM.



Engineers Day

Engineers Day was celebrated in our Institute on 15.9.2015. Mr. Sathiya Seelan, General Manager - Styling, Ashok Leyland Technical Center Chennai delivered the talk on "CV design where form and function merge together"



Hindi Diwas

Institute celebrated the Hindi Diwas during 14. to 29 Sep. 2015 with commencement of Hindi Pakhawara on Sept. 14, 2015. Competitions on Essay writing, Synonym, Sulekh (Hand writing), and debate were organized for Students, faculty and staff. Winners were felicitated during the special award ceremony held on Sept. 30, 2015.



Samgatha-2016

Annual techno-cultural fest Samgatha2016 organized between March 24th to March 27th, 2016. This year's theme was "Make in India". More than 30 events were organized.



Republic Day

Republic Day celebrations were held on 26.1.2016. The Director hoisted the flag and delivered the Republic Day speech. Students participated in various cultural events. Several project presentations such as underwater and mobile robots were conducted by Designers club students, and received wide media publicity.



National Science Day

A Quiz and Painting competition was conducted on 26th February 2016 in the institute as a part of the National Science Day. Over 60 students from the Government High School Kandigai and Delhi Public School of classes 6th, 7th and 8th participated in the event. The quiz consisted of various rounds including written and oral rounds where the questions were based on science. The judging criterion for the drawing competition focused on creativity and scientific relevance based on the themes/topics given to them.



International Yoga Day Celebrations

A training camp on Yoga was conducted for the benefit of the institute fraternity and neighbouring school students. The camp was conducted with experts from Tamil Nadu Physical Education & Sports University. Exceeding expectations, a large number of around 230 students from various schools nearby such as Government High School Mambakkam, Government High School Kandigai, Government High School Kolapakkam, Government High School Rathinamangalam and Delhi Public School-Uniworld City participated in the camp. To spread the awareness of Yoga amongst the younger generation and to motivate them in adopting / spreading the message, competitions on Drawing, Elocution and Essay Writing were conducted for the school students who had participated in the forenoon camp. The competitions again saw active participation with around 105 participants in all. All the events were centered on the theme of Importance of Yoga for a Healthy Life resulting in living life to its full potential.



VI Community Services



Great opportunities to help others seldom come, but small ones surround us every day
- Gally Koch

Teaching Activity

There was a turnout of 13 children aged between 5 to 10 years for the activity. Based on the schedule drawn up for the sessions, the volunteers helped them touch the basics like alphabets, numbers and rhymes. Each session was of a length of one hour. To make sessions more effective, each session was started by refreshing what was learned previously. Simple games and other interaction methods were used to keep the learning process interesting and encourage the children to attend all sessions. Each day 5 volunteers and 2 coordinators were assigned and 2 more coordinators to bring the children to the venue.

Teaching Activity

Vandalur Zoo Cleaning – Swachh Bharath

A visit to Arignar Anna Zoological park (Vandalur Zoo) was conducted as part of the cleaning activity. All volunteers were involved in the work, the main objective being promoting the value of cleanliness among people and motivating everyone to keep their surroundings clean.

45 volunteers divided into groups of 5 led by a coordinator were assigned different zones within the zoo. Gloves and bags were provided to the volunteers and they were encouraged to pick up all the plastic and paper wastes. At the end of the activity, there was a talk with the biologist of the zoo, Dr. Manimudi. The team was appreciated for their efforts and encouraged to do more of such activities. The team returned back after being provided with refreshments.



Campus Drive



A “My campus drive – Swachh Bharath” was conducted by the Social Service Group of our institute to clean various locations in the institute as a part of the cleaning activities. The aim of the drive was to initiate awareness about cleanliness in the institute among the students. All the SSG volunteers and also non-SSG volunteers participated in the activity. Volunteers were divided into groups of four and each group of volunteers was assigned a coordinator. Gloves and dustbins were provided to the volunteers to collect the plastic waste. Each group cleaned specific zones of the institute (such as Cricket ground, outside the laboratory blocks, beside the cafeteria, in- front of hostels). At the end of the activity, the volunteers were provided with refreshments. The volunteers did a commendable job supporting the group’s effort in gathering plastic waste from around the places they went about in the campus.

Blood Donation Camp



As part of the volunteer activities undertaken by the Social Service Group of our institute, a Blood Donation camp was organized jointly with Lion's Club at our campus. All the necessary precautions to donate blood were mentioned to everyone three days prior to the camp.



Coordinators and volunteers were assigned for both morning and afternoon sessions. Each of the coordinators took care of writing certificates, helping the donors to fill the forms, to give refreshments and to take care of them while donating blood. The donors were permitted for the process after a medical checkup by the doctors of Lion’s Club. Refreshments were given for each donor soon after donating the blood. A certificate was issued to the donors immediately. At the end feedback was taken by the Lion's Club team. A total of 133 donors have donated their blood.

Polio Drop Camp



As a part of Pulse Polio Immunization program, the Social Service Group of our institute assisted in vaccinating the children in the hospitals and other vaccination booths nearby the campus. There were totally five centres and a group of six volunteers and a coordinator was assigned for each centre. Each group was dropped off their respective centres in a cab. In each centre, volunteers assisted in informing people about the camp in the nearby areas, measuring the weight of the children, vaccinating them and to put mark with ink on their little left finger. In each centre, approximately 80-100 children were vaccinated. Everyone worked with dedication and more than anything a sense of awareness was developed to help the society around us.



Beach Cleaning



With the ever growing environmental concern, the Social Service Group decided to conduct a beach cleaning activity in Kovalam beach. The volunteers were divided into groups of five and a coordinator was assigned for each group. The volunteers were provided with required utilities like gloves and covers to collect the plastic. Each group was assigned a particular zone to clean.



The drive developed a sense of concern and care for nature amongst the volunteers and also developed a sense of dignity in the volunteers in keeping their surroundings clean. It also made them aware of how small actions can have a great impact on the nature and humanity.

Hands-on Arduino Workshop



As part of Arduino Day 2016 worldwide events, the Teaching Learning Centre and Designers Club conducted a Hands-on Arduino workshop on April 02. Many students from Mambakkam Government School and Delhi Public School took part.



