

ANNUAL REPORT

2020-21



INDIAN INSTITUTE OF INFORMATION TECHNOLOGY,
DESIGN AND MANUFACTURING, KANCHEEPURAM,
CHENNAI-600127

CONTENTS

Chapter No.	Description	Page No.
	Director's Message	1
I	General Information	4
	Mandate, Vision, Mission, and Charter	4
	Board of Governors	6
	Finance Committee	8
	Building and Works Committee	9
	Senate	10
	Institute Administration	13
	Administrative Staff	15
	Technical Staff	16
	Cumulative Faculty Strength	17
	Administrative Responsibilities of Faculty	18
	Campus Demography	21
II	Academics-General	26
	Design-Centric Academic Programs	26
	Academic Programs Offered	27
	Academic Milestones	28
	Fee Structure for New Admissions (2020 Batch)	29
III	Academic Streams	30
	Computer Science and Engineering	30
	Electronics and Communication Engineering	35
	Mechanical Engineering	43
	Basic Sciences & Humanities	52
	School of Inter-Disciplinary Design and Innovation (SIDI)	55
IV	8th Convocation	59
V	Institute Library	66
VI	Research and Innovation	71
	PhD Scholars @ IIITDM Kancheepuram	71

	Patents and Publications	76
	Faculty Accomplishments	92
	Sponsored Research and Consultancy	102
	International Collaborations and MoUs	114
	Teaching Learning Centre (TLC)	115
	SMart and Innovative Laboratory for Energy devices (SMILE) Lab	119
	MaDeIT Innovation Foundation	121
	Institute Innovation Centre (IIC)	123
	Design Innovation Centre (DIC)	125
	Centre for AI, IoT and Robotics	128
	Centre for Smart Manufacturing	131
VII	Student Activities and Achievements	133
	Achievements in Academics	133
	Placements	134
VIII	Events Organized	138
	Workshops/STTP/STC/ Organized	138
	The International Conference on Information and Communication Technology (CICT 2020)	139
	Research Scholars' Day	142
IX	Calendar Events-Institute Celebrations	143
	International Day of Yoga	143
	Independence Day	148
	National Sports Day	150
	Fit India Freedom Run	151
	Teacher's Day	153
	Fit India Prabhat Pheri	154
	Republic Day	156
	Matribhasha Diwas	157
	World water day and Jal Shakti Abhiyan	158
X	Infrastructure	159
	Major Infrastructure Facilities	159

Director's Message

Greetings from IIITDM Kancheepuram...

With great pleasure and satisfaction, I present the Institute's annual report of the financial year 2020-21. The past one year has been a real testing time for all academic institutions across the globe. Faculty, staff and students of the Institute have been working strenuously to achieve our academic and research goals without letting the pandemic to play havoc on us. I congratulate the IIITDM Kancheepuram community for standing together to reach great heights at this time of distress.



Since its inception in 2007, the Institute is on the path of steady growth and development in the fields of teaching and learning, research, and infrastructure. Compared to the previous year, the Institute's student strength has increased from 1545 to 1670. To take care of this increase in student strength, this year, we have 14 new faculty members on board, which makes the number of total regular faculty 64. At present, the Institute has 40 administrative and technical staff taking care of its day-to-day activities.

Our curriculum is designed to encourage students to pursue interdisciplinary projects involving diverse engineering issues that demand attention and solution. To strengthen the design spine of the Institute, in February 2020, IIITDM's Board of Governors constituted a sub-committee headed by Mr Krishna Giri and Dr Venkatesh. The sub-committee, after deliberations with various stakeholders of the Institute, made three important recommendations: one, to establish School of Interdisciplinary Design and Innovation (SIDI); two, to provide choice for students to pursue minor/honor in product design from the 2020 batch; and three, to launch a differentiated M. Des. program in Integrated Product Design and a Ph.D. program in Product Design and Innovation. I am happy to put on record that, with the approval of the Senate and Board of Governors, we have implemented all the three suggestions.

SIDI provides a multidisciplinary ambience where creativity is nurtured. It houses the Institute's incubation cell, MaDeIT, and guides start-ups and students led product and innovation. The school offers six free electives to students to earn minor/honor degrees. M. Des. in Integrated Product Design is to mentor students to become design leaders who have the courage and confidence to identify and resolve paradoxical challenges faced by the industry through creative, smart and contextually relevant products. Through this program we hope to contribute significantly to the vision of Atmanirbhar Bharat. In 2021-22, we are rolling out 3 new M Tech programs in AI and Robotics, Power Electronics, and Computer Science and Engineering with specialization in Data Science and AI. In addition

to that, from the 2020-21 batch onwards, up to 20% of the B. Tech. students will be permitted to undertake M. Tech as Dual Degree program. These measures will increase the number of M. Tech seats. Students will be admitted from AY2021-22 onwards for another new B. Tech program in CSE with specialization in AI.

Aligning itself to the vision of National Education Policy (NEP 2020), the Teaching Learning Centre (TLC) at the Institute is involved in the development of low-cost laboratory equipment for universities and engineering colleges in India. In addition to that, the centre is contributing e-learning resources also. Based on the principle of affordable education for all, through the efforts of TLC, the Institute supplied low-cost devices to various schools in Chennai and Bangalore. Now, we have been declared as “National Resource Centre (NRC)” on Design and Manufacturing. MaDeIT, is mentoring 8 start-ups working on state-of-the-art problems in the fields of manufacturing, health care and transportation. With a sense of fulfilment, I put on record that one start-up mentored by the centre graduated to function independently. To promote investment and entrepreneurship, workshops are organized by MaDeIT for CEOs of SMEs in Chennai. Design Innovation Centre (DIC), established in 2017 with 1.5 crore grant sanctioned by DST, plays a key role in promoting design thinking. DIC spreads the mantra of design thinking and innovation by conducting workshops and facilitating research. Centre for AI, IoT and Robotics and Centre for Smart Manufacturing, the two Centres of Excellence established by the Institute in 2019, are in the process of further expansion with the addition of research equipment. Collaborative research plans have been initiated by these centres with industries. Research papers, short term training and skill development programs are being organized by these centres besides publishing research outcomes in reputed journals and conferences.

The Institute understands the importance of implementing National Educational Policy 2020 effectively and immediately. In an online meeting conducted on 9 August 2020, we made an action plan to align the Institute’s future with that of the suggestions in new education policy. Since our undergraduate curriculum is based on multidisciplinary pedagogy intended to promote design thinking and learning by doing, we enjoy the advantage of starting the journey early. B.tech. and M.Tech. programmes in Smart Manufacturing and AI, imbibe the spirit of the new education policy. Our students integrate ideas from different disciplines to create product concepts. The new programs along with the curriculum revision bring IIITDM’s academic aspirations closer to the philosophy of NEP 2020.

Through the contribution of the faculty and research scholars, IIITDM Kancheepuram has witnessed a significant increase in its research output. The Institute has acquired various projects funded by both government and private funding agencies: At present, the Institute

has projects worth 3 crores to its account. We are in the process of establishing bilateral ties with South Asian countries like Afghanistan, Bhutan, Bangladesh and Sri Lanka.

IIITDM Kancheepuram is contributing to nation's fight against Covid-19 by engaging in research activities to understand the pandemic scientifically. A research paper titled "A Preliminary Prediction of Covid-19 Cases in India by April 2020 Using Exponential Mathematical Modelling" has been published by a faculty in National Journal of Research in Community Medicine. This paper predicted that the number of cases can be reduced by strict enforcement of lockdown and social distancing. A couple of projects like portable / hand held /12 V operated microwave dryer for re-useable mask, high speed 360-degree nozzle for liquid sanitizer spray, autonomous robotic systems to dispose medical waste, and robotic hand for cleaning wash basins used by Covid-19 patients are progressing well in our research labs.

I am happy to inform that the placement cell is performing well. The number of core companies visiting the campus for placements and internships is on the rise. In addition to that, the average and maximum packages offered to our students have gone up.

Imbibing the spirit of Atmanirbhar Bharat, the Institute is working towards making the country self-reliant. The prestigious projects of the government like Digital India, Make in India, Unnat Bharat Abhiyan, Ek Bharat Shreshtha Bharat, Fit India movement, and Skill India are closely related to the vision of the Institute. We have to channelize our energy to make the country self-reliant and I believe the faculty and the students of the Institute will continue to contribute to this.

Since March 2020, due to the pandemic, we had to bring all activities on the campus to a close. Even though the situation was unprecedented, we were quick to migrate to the online mode to continue our pursuit of excellence. I appreciate the students who are trying to perform well irrespective of their difficulties. Our performance during the pandemic gives me the confidence to believe that the dedicated faculty and staff of the Institute will never let the pandemic to affect the development of the Institute and the well-being of its students. We are working towards internationalizing IIITDM Kancheepuram and to integrate local with global. Our future efforts will be to help students appreciate the Indian culture by offering related course. The automation of the institute related services and data is in the pipeline. We hope to increase our student strength significantly in near future to realize our vision of a student centric education in a multidisciplinary ambience.

Prof. Banshidhar Majhi
Director

I. General Information

Mandate

IIITDM Kancheepuram was set up in the year 2007 and is one of the three Institutes in India to offer innovative design centric engineering programs. The programs are distinct from programs offered by other institutions as it blends engineering design and manufacturing with a set of institutional core courses in Information Technology, Product Design and Prototyping. In addition, these courses promote a problem-based learning pedagogy demanding a strong industry domain experience and inter-disciplinary expertise. The unique curriculum imparts strong fundamental knowledge with design centric features so that students can handle complex design problems. Design and Manufacturing are incorporated in the charter of the institution and the same is as under

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 programs 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.



The full-fledged campus of IIITDM Kancheepuram

Board of Governors


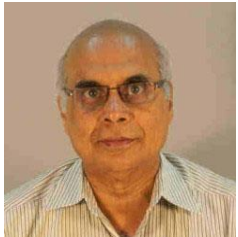



Title		Name	Affiliation
Chairman		Prof S Sadagopan	Director IIIT Bangalore
Members		Shri BS Raghavan	Former Advisor to UN, Author & Educationist Former Chief Secretary Govt. of Tripura
		Shri Hans Raj Verma, IAS	Additional Chief Secretary, Dept of Information Technology, Govt. of Tamilnadu
		Prof Bhaskar Ramamurthi	Director IIT Madras
		Dr Jaideep Kumar Mishra	Joint Secretary (HRD), Ministry of Electronics and Information Technology, Govt. of India

		Shri B Santhanam	President Saint Gobain, India
		Shri Krishna GV Giri	Former Managing Director & Vice Chairman, Accenture
		Prof David Koilpillai	Dean (Planning) IIT Madras
		Prof S Narayanan	Emeritus Professor IIITDM Kancheepuram
		Prof Banshidhar Majhi	Director IIITDM Kancheepuram
Secretary		Mr A Chidambaram	Registrar IIITDM Kancheepuram

Finance Committee

Title		Name	Affiliation
Chairman		Prof S Sadagopan	Director IIIT Bangalore
Members		Prof Banshidhar Majhi	Director IIITDM Kancheepuram
		Dr S Murugiah	Former Principal Acct General, TN
		Shri Anil Kumar	Director (Finance), MHRD, GoI
		Shri Prashant Agarwal	Director (IIT & IIIT), MHRD, Government of India
		Prof S Narayanan	Emeritus Professor IIITDM Kancheepuram
Secretary		Shri Chandan Kumar Prusty	Assistant Registrar IIITDM Kancheepuram





Building and Works Committee

Title		Name	Affiliation
Chairman		Prof. Banshidhar Majhi	Director IIITDM Kancheepuram
Members		Prof S Narayanan	Emeritus Professor, IIITDM Kancheepuram
		Prof P Alagusundarmoorthy	Professor, Dept of Civil Engineering, IIT Madras
			Supt. Engineer, TNEB- TANGEDCO, Chengalpattu
		Dr Sreekumar M	Dean (Planning & FA) Associate Professor IIITDM Kancheepuram
Secretary		Shri R Gunasekaran	Joint Registrar (Academics & Estate), IIITDM Kancheepuram

Senate





Title		Name	Affiliation
Chairman		Prof. Banshidhar Majhi	Director IIITDM Kancheepuram
Members		Prof P Chandramouli	Professor, Dept. of Mechanical Engg., IIT Madras
		Prof V Jagadeesh Kumar	Professor, Dept. of Electrical Engg., IIT Madras
		Prof Krishnamoorthy Sivalingam	Professor, Dept. of Computer Engg., IIT Madras
		Dr G Venkatesh	M/s Sasken Communication Tech Ltd.
		Dr Anand Lakshmanan	M/s Ericsson India Global Services

Title		Name	Affiliation
Members		Dr Sudhir Varadharajan	Dean (Design, Innovation and Incubation) Associate Professor IIITDM Kancheepuram
		Dr Sreekumar M	Dean (Planning & FA) Associate Professor IIITDM Kancheepuram
		Dr Binsu J Kailath	Dean (Academics) Associate Professor IIITDM Kancheepuram
		Dr Selvaraj M D	Dean (Sponsored Research) Associate Professor IIITDM Kancheepuram
Members		Dr Naveenkumar Vats	Dean (Student Affairs) Associate Professor IIITDM Kancheepuram
		Dr Priyanka Kokil	HoD (ECE) Assistant Professor IIITDM Kancheepuram

Title		Name	Affiliation
		Dr Raja B	HoD (Mechanical Engineering) Associate Professor IIITDM Kancheepuram
		Dr Sadagopan N	HoD (CSE) Assistant Professor IIITDM Kancheepuram
		Dr Tapas Sil	HoD (Physics) Associate Professor IIITDM Kancheepuram
		Dr Vijayakumar S	HoD (Mathematics) Assistant Professor IIITDM Kancheepuram

Institute Administration

	<p>Prof Banshidhar Majhi Director</p>	<p>IIITDM Kancheepuram</p>
	<p>Shri A Chidambaram Registrar</p>	<p>IIITDM Kancheepuram</p>
	<p>Dr Sudhir Varadharajan Dean (Design, Innovation and Incuation)</p>	<p>Associate Professor, IIIDM Kancheepuram</p>
	<p>Dr Sreekumar M Dean (Faculty Affairs)</p>	<p>Associate Professor IIITDM Kancheepuram</p>
	<p>Dr Binsu J Kailath Dean (Academics)</p>	<p>Associate Professor IIITDM Kancheepuram</p>
	<p>Dr Selvaraj M D Dean (Sponsored Projects)</p>	<p>Associate Professor IIITDM Kancheepuram</p>

	Dr Naveenkumar Vats Dean (Student Affairs)	Associate Professor IIITDM Kancheepuram
	Dr Priyanka Kokil HoD (ECE)	Assistant Professor IIITDM Kancheepuram
	Dr Raja B HoD (Mechanical Engineering)	Associate Professor IIITDM Kancheepuram
	Dr Sadagopan N. HoD (CSE)	Assistant Professor IIITDM Kancheepuram
	Dr Tapas Sil HoD (Physics)	Associate Professor IIITDM Kancheepuram
	Dr Vijayakumar S HoD (Mathematics)	Assistant Professor IIITDM Kancheepuram

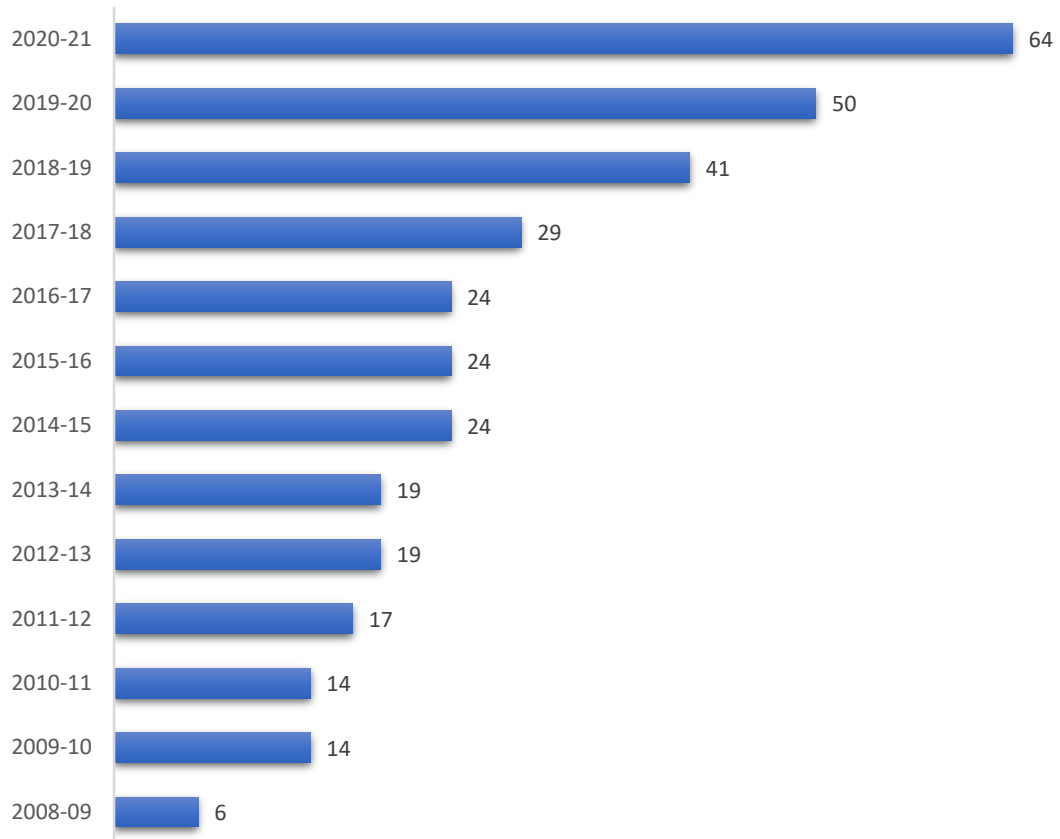
Administrative Staff

				
Shri A Chidambaram Registrar	Shri R Gunasekaran Joint Registrar	Shri G Ravi Kumar Assistant Registrar (SS)	Shri K Chandrasekaran Internal Audit Officer	Shri. Chandan Kumar Prusty Assistant Registrar
				
Smt S Rajalakshmi Superintendent	Smt G Subashini Superintendent	Shri S Pandiyan Assistant Engineer (Civil)	Shri Ramkumar R Assistant Engineer (Electrical)	Shri G Perumal Superintendent (Library)
				
Shri P Alaguraj Senior Physical Training Instructor	Shri S Karthikeyan Senior Assistant	Shri K Dinesh Kumar Senior Assistant	Smt P Kavitha Senior Assistant	Shri G Venkatesh Senior Assistant
				
Shri R Balaji Junior Assistant	Shri. Thailam Shivanagadurgavinod kumar Junior Engineer (Electrical)	Shri. S. Venkatesh Junior Assistant	Shri. Vivek R Junior Assistant	Kum. S. Harshini Junior Assistant

Technical Staff

				
Shri. C. Gurunathan Technical Officer (SS)	Shri. P. M. Sriram Bhaskar Technical Superintendent	Shri. K. Saravana Kumar Technical Superintendent	Shri. A. Vigneshwaran Technical Superintendent	Smt. K. Manimegalai Senior Technician
				
Shri. G. Manigandan Senior Technician	Shri. M. Ashwinraj Senior Technician	Kum. P. Pavithra Jr. Tech. Suptd.	Shri. R. Dharmarasu Jr. Tech. Suptd.	Shri. K. Kanagaram Senior Technician
				
Shri A VijayaBharathi Junior Technician	Kum. Rakshana A Junior Technician	Kum. Sindhu S Junior Technician (Library)	Kum. Universe Jasmine A Junior Technician	Shri. Vivek M P Junior Technician
				
Shri. Aravindan S Junior Technician	Smt. Tamilmani D Jr. Tech. Suptd.	Shri. Krishna Prasad N Jr. Tech. Suptd.	Shri. Karthick V J Junior Technician (Library)	Kum. Bhuvaneswari. N Junior Technician

Cumulative Faculty (Regular) Strength as on 31 March 2021



Administrative Responsibilities of Faculty, 2020-21

Portfolio	In charge	PIC
Academics	Dean (Acad.)	Dr. Jayabal K – Exam Dr. AVS Siva Prasad & Dr K Srijith- Academics
Disciplinary Committee (Academics)		Dr. Gowthaman Swaminathan (Academic Research)
Guidance and Counseling		Dean (Acad) (Chairman), PIC (Exam), all HoDs
Ranking & Survey (NIRF/AISHE/THE, etc)		Dr. Selvajyothi K (PIC) Dr. Umarani J Dr Jayachandra Bingi
QIP/NPTEL		Dr. Prem Kumar K (PIC) Dr. Appina Balasubramaniam
Placement		Dr. Venkata Timmaraju Mallina
Accreditation		Dr. Jayabal K (PIC) Dr. AsutoshKar Dr. Munesh Singh
Disciplinary Committee (Hostel and Others)	Dean (SA)	Dr. Jayavel S (PIC) Dr. Masilamani V Dr. Shalu M A Dr. Shahul Hamid Khan Dr. Damodharan Dr. Noor Mahammad S K Dr. Venkata Timmaraju Mallina
Sports		Dean (SA) (Chairman), All Wardens
Hindi Section		Dr. K.P Pradhan
Scholarship		Dr. Anushree P. Khandale
Social Service Group		Dr. Nachiketa Mishra
Anti-Ragging& Student body		Dr. Vijayakumar K
Cultural Activities		Dr. Sivaselvan B
Weaker Section		Dr. Perna Saxena Dr. Rino Nelson
Designers Club		Dr. Pandithevan P
Chairman, Committee of Wardens		Dr. ChittiBabu B
Warden/Mess		Dr. Naveen Kumar
Guest House (Hostel)		Dr. Jagadeesh Kakarla Dr. Kalpana P
		Dean (SA)

Portfolio	In charge	PIC
Institute Website	Dean (FA)	Dr. Asutosh Kar Dr. Srijith K
Institute Automation		Dr. Sadagopan N
Institute Mail Administration		Dr. Siva Selvan B
Networking		Dr. Munesh Singh
News Letter (Margdarshan)		Dr. Shubhankar Chakraborty Dr. Tejendra Dixit Dr. Avinash Kumar
Stores and Purchase Committee		Dr. Siva Selvan B Dr. Binsu J Kailath Dr. Jayabal K
Annual Report		Dean (FA) Dr. Srijith K
Sponsored Research/Industrial Consultancy	Dean (SRICCE)	Dr. M.D. Selvaraj
Conferences/Workshops /Short Term Courses		
MOU		
IEEE Student Branch		Dr. Chitti Babu B
Industrial Visit/Guest Lecture/ Society of Automotive Engineering		Dr. Jayavel S
Library	Dr. Vivek Kumar	
Infrastructure	Dean-Planning	Dr. M Sreekumar
Institute Security		Dr. M. Sreekumar
Gardening		Dr. M Subramani
Civil Maintenance		Dr. M. Sreekumar
Electrical Maintenance		Dr. Chitti Babu B
MaDeIT	Dean-DII	Dr. Sudhir Varadharajan Dr. Noor Mahammad S K Dr. JayachandraBingi Dr. Raguraman Munusamy
School of Interdisciplinary Design and Innovation		
IIC (Institute Innovation Council)		
IPR		
ARIIA		
Industry Liaisoning		

HoDs

Department	HoD's
Mechanical Engineering	Dr. B. Raja
Electronics and Communication Engineering	Dr. Priyanka Kokil
Computer Science and Engineering	Dr. Sadagopan N
Mathematics	Dr. Vijayakumar S
Physics	Dr. Tapas Sil

Centres	PIC
Teaching and Learning Centre (TLC)	Dr. Senthil Kumaran K
Centre for AI, IoT, and Robotics	Dr. M. Sreekumar
Centre for Smart Manufacturing	Dr. Senthilkumaran K
Design Innovation Centre (DIC)	Dr. Naveen kumar Dr. Kumar Prasannajit Pradhan
Campus Health Centre	Dr. Binsu J Kailath Dr. Jagadeesh Kakarla
Centre for Alumni Affairs	Dr. B Raja Dr. Selvajyothi K

Hostel

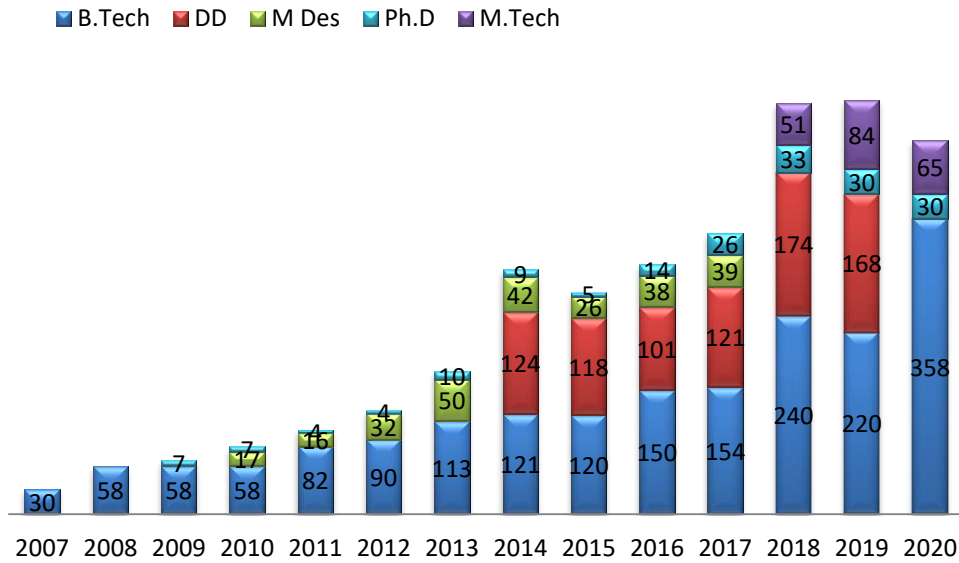
Chairman, Committee of Wardens	Dr. Naveen Kumar
Warden/Mess	Dr. AVS Siva Prasad Dr. Jagadeesh Kakarla Dr. Kalpana P

Campus Demography

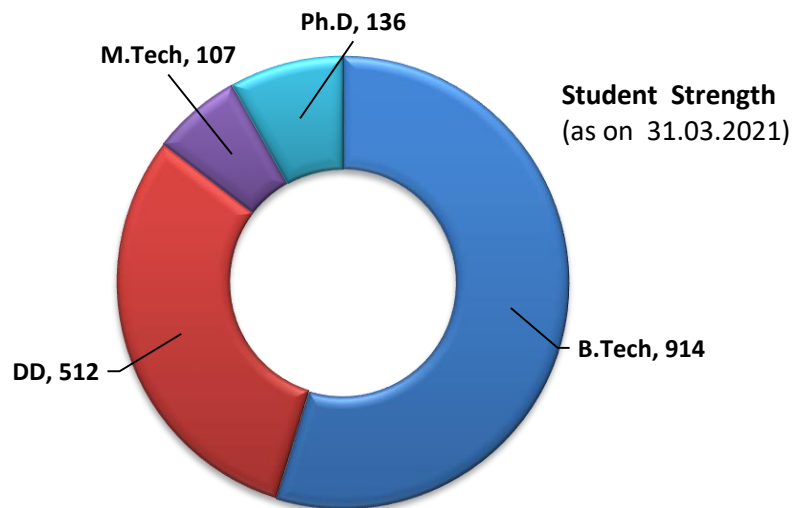
Student Strength as on 31.03.2021

Degree	2014	2015	2016	2017	2018	2019	2020	Grand Total
B Tech				144	225	195	350	914
COE				44	62	57	120	283
EDM				34	53	54	119	260
MDM				37	59	44	74	214
MSM				29	51	40	37	157
DD			97	113	159	143		512
GED			41	41	55	58		195
ESD			11	19	24	23		77
EVD			16	18	30	26		90
MFD			15	20	24	17		76
MPD			14	15	26	19		74
M. Tech						48	59	107
CDS						11	13	24
EDS						15	15	30
MDS						14	18	32
SMT						8	13	21
M. Tech - R						1		1
COE						1		1
Ph. D	2	3	14	23	27	37	30	136
COE		1		3	7	6	5	22
EDM	2	1	5	8	9	11	13	49
MAT			1		3	3	1	8
MDM		1	7	12	3	15	10	48
PHY			1		5	2	1	9
Grand Total	2	3	111	280	411	424	439	1670

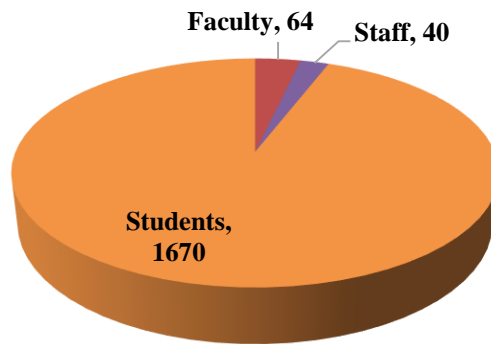
Student Admission



Student Strength as on 31.03.2021



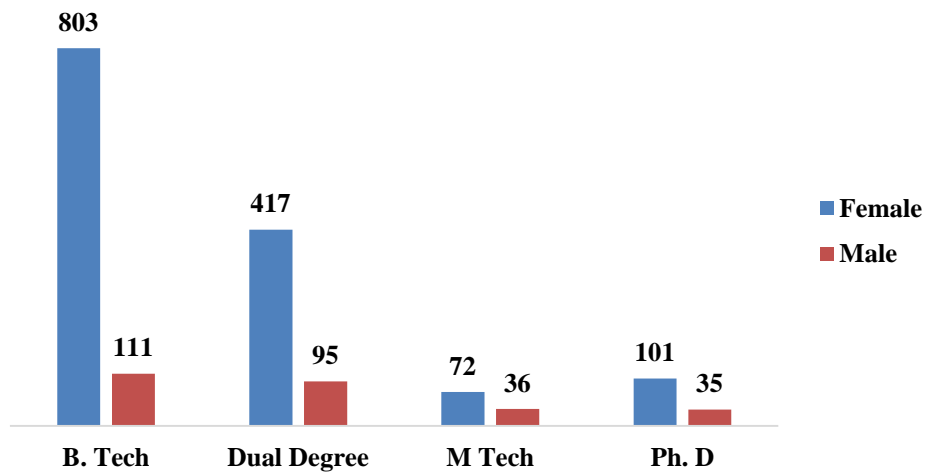
Campus Population



Category wise Student Distribution (as on 31 March 2021)

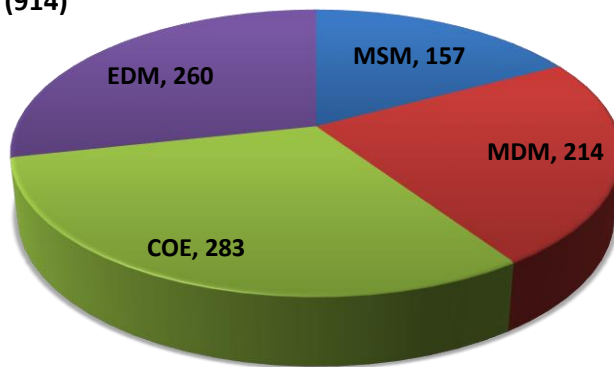
Degree	Female	Male	Grand Total
B Tech	111	803	914
DD	95	417	512
M. Tech	36	72	108
Ph. D	35	101	136
Grand Total	277	1393	1670

Students Data-Gender Wise

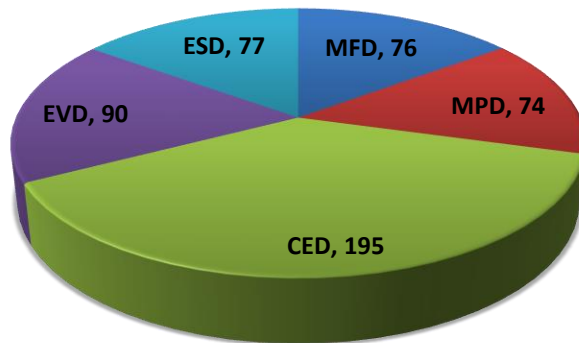


Specialization Wise Student Distribution

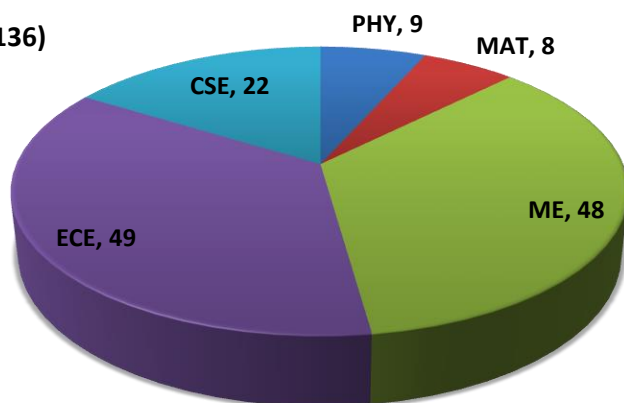
B.Tech (914)



DD (512)

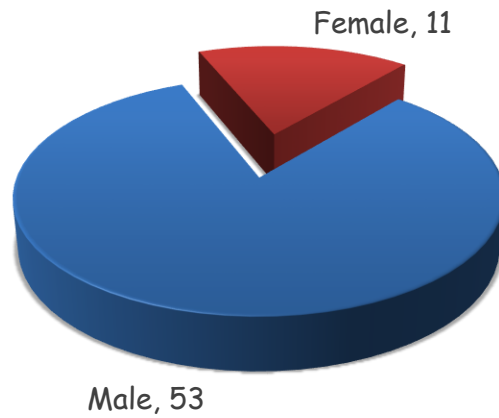


PhD (136)

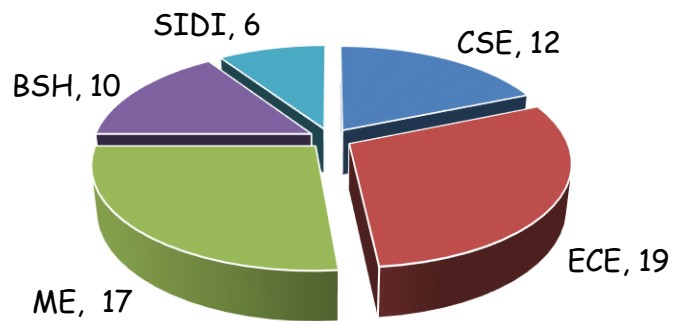


Faculty Information

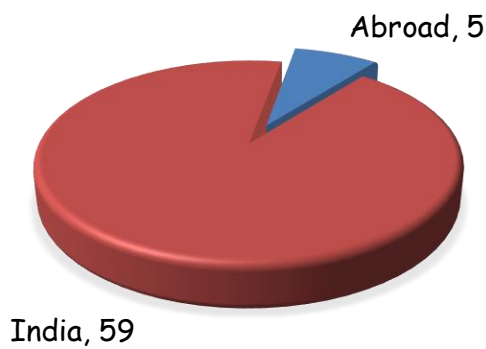
Gender wise Distribution of Faculty



Departmentwise Distribution of Faculty



Doctoral of Faculty

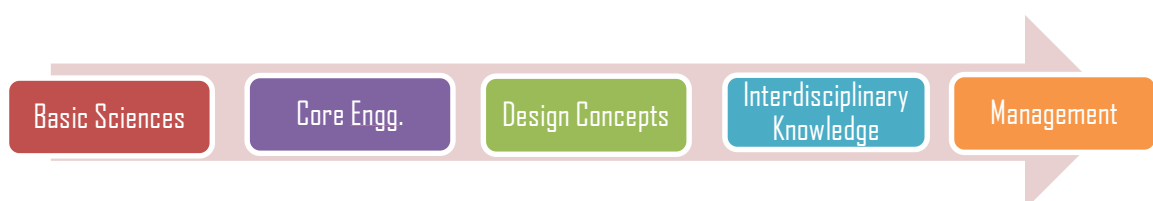


II. ACADEMICS-General

Design-Centric Academic Programs

At IIITDM Kancheepuram, the academic programmes were crafted after a series of brainstorming sessions with industry experts and renowned academicians from various regions and expertise in various fields to bridge the gap between the academia and industry. In these modern times, many young engineers graduating from educational institutions possess fundamental knowledge but find it difficult to apply their knowledge to solve real-world problems. The innovative design centric academic programme introduced at IIITDM Kancheepuram has courses in design and management that will help them to be more innovative and industry ready and fulfil the role of a design and manufacturing engineer. Design, Manufacturing, and Product Development are integral part of each programme in the institute, and basically satisfy the following criteria:

- Societal impact - Engineering's primary value to society is the ability to deliver products and solutions that improve quality of life. Other benefits shall include enhanced comfort, safety, convenience, cost-effectiveness, usability, functionality, and marketability. The curriculum is enriched with interdisciplinary courses blended with management, environment professional ethics science, etc. In addition, students have to design and develop a product or prototype as a part of their course works as most of the courses are integrated with practice sessions.
- Intellectual challenges – For any product to be competitive technically and economically, it must incorporate the appropriate latest technologies and to 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 Programs Offered

The motto of the institute is “Learning by Doing”. It is put into practice in IIITDM Kancheepuram in terms of its teaching. The institute envisages significant amount of emphasis for practice courses as theory ethical concepts are explored along with the relevant laboratory courses. All the programs are highly interdisciplinary and students are free to choose their specializations. The institute also follows its vision of developing engineers with design and manufacturing skills. The following are the programmes currently being offered by IIITDM Kancheepuram.

B Tech

Computer Science and Engineering
Electronics and Communication Engineering
Mechanical Engineering
Mechanical Engineering (Spl: Smart Manufacturing)

M Tech

M Tech. in Mechanical Engineering
(Spl: Mechanical Systems Design)
M Tech. in Electronics and Communication Engineering
(Spl: Electronics Systems Design)
M Tech. in Electronics and Communication Engineering
(Spl: Communication Systems Design)
M Tech. in Mechanical Engineering (Spl: Smart Manufacturing)
M Tech (By-Research)

Dual Degree (B Tech + M Tech)

B Tech Computer Science and Engineering + M Tech Computer Science and Engineering (Spl: Systems Design)
B Tech. Electronics and Communication Engineering + M. Tech. in Electronics and Communication Engineering (Spl: VLSI Design)
B Tech. Electronics and Communication Engineering + M. Tech. in Electronics and Communication Engineering (Spl: Communication Systems Design)
B Tech Mechanical Engineering + M. Tech. in Mechanical Engineering (Spl: Product Design)
B Tech Mechanical Engineering +M. Tech. in Mechanical Engineering (Spl: Advanced Manufacturing)

PhD

All Basic Sciences and Engineering

Academic Milestones

2021	B Tech - CSE (AI), M Tech - CSE (DS&AI), M. Des (IPD)
2020	M Tech - PESD, M Tech - CSE, M Tech-Adv. Robotics
2019	Post-Doctoral Fellowship, M Tech (By-Research)
2017	M Tech Smart Manufacturing
2016	B Tech - Smart Manufacturing Intake 40
2015	Mentoring IIITDM Kurnool with 50 Intake
2014	Dual Degree Intake 120
2013	UG intake Increased to 120
2012	M Des (Comm. Systems)
2011	UG intake Increased to 90
2010	M Des (Mech. & Electronics)
2009	B Tech - 20 (Computer Eng.) Doctoral (Ph D)
2008	B Tech - 20 Electrical D&M
2007	B Tech - 30 Mechanical D&M

Fee Structure for the New Admissions (2020 Batch)

Description	B.Tech / Dual Degree	M.Tech	Ph.D.
I. Institute Fees			
A. One-time Fees:			
Admission Fee	500	500	500
Certificate/Thesis Fee	500	500	1500
Student welfare fee	1000	1000	1000
Infrastructure Development Fee	1000	1000	1000
Alumni Life Membership Fee	500	500	500
Publication Fee / Library Fee	1000	1000	1500
Cultural Fee	500	500	-
Total (A)	5000	5000	6000
B. Semester Fees:			
Tuition fee*	60000	25000	24000
Examination fee	500	500	500
Registration	300	500	500
Sports Fee	1000	1000	1000
Medical Fee	1000	1000	1000
Student Amenities	2000	2000	3000
Total (B)	64800	30000	30000
C. Medical Insurance Premium (per annum)			
Medical Insurance premium p.a.	500	500	500
Total (C)	500	500	500
Grand Total [A+B+C]	70300	35500	36500
II. Hostel Fees			
A. Hostel Fees & Mess Charges per semester			
Hostel Admission fee	700	700	700
Hostel Seat Rent	3500	3500	3500
Hostel Maintenance Charges	9000	9000	9000
Dining charges - Advance	14000	14000	14000
Establishment B Charges	1000	1000	1000
Development Fee	1000	1000	1000
Total (A)	29200	29200	29200
Hostellers (I & II)	99500	64700	65700

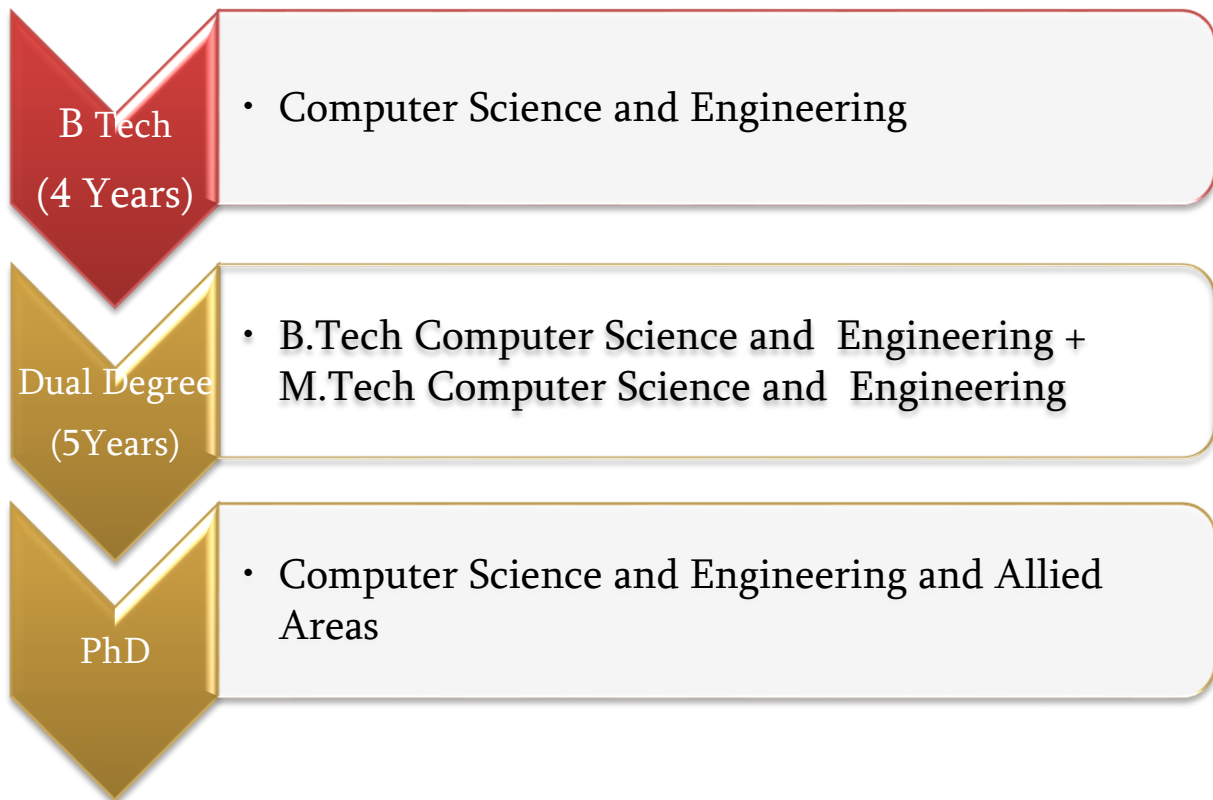
Note:

1. *SC/ST students are exempted from payment of tuition fee irrespective of their parental income.
2. Hostel is compulsory for all B Tech/DD students. If exemption is granted by the Institute, then day scholars will have to pay the above-mentioned Institute fees (Except Hostel Fees).

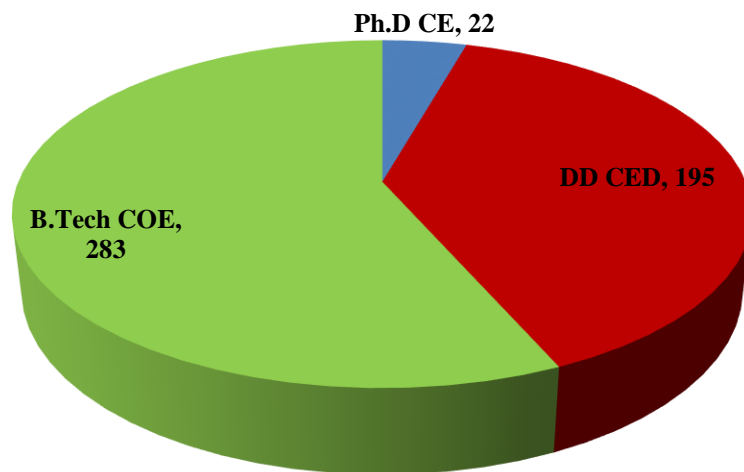
III. Academic Streams

Computer Science and Engineering (CSE)

The first of its kind engineering programs offered in India with a right blend of courses from computer and electronics streams, the B.Tech and Dual Degree Computer Engineering curriculum at IIITDM Kancheepuram are modelled on the ACM (Association for Computing Machinery) recommendations. These programs are aimed at producing engineers equipped with skills required for developing efficient hardware-software interaction. In addition to courses offered by the conventional Computer Science curriculum, these novel programs offer 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 very much required for the successful creation of products requiring hardware-software interactions.



Student Strength-CSE



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

Faculty

	<p>Banshidhar Majhi PhD (NIT Rourkela)</p> <p>Research Interests: Image Processing, Data Compression, Cryptography and Security, Parallel Computing and Soft Computing</p>		<p>Masilamani V. PhD (IIT Madras)</p> <p>Research Interests: Image Processing, Computer Vision, Data Structures and Algorithms</p>
	<p>Noor Mahammad S. K. PhD (IIT Madras)</p> <p>Research Interests: Software for VLSI Design, Evolvable Hardware, Open Flow Networks, Network-on-Chip (NoC)</p>		<p>Sivaselvan B. PhD (NIT Trichy)</p> <p>Research Interests: Knowledge and Data Engineering, Usability Engineering, Human Computer Interaction</p>
	<p>Sadagopan N. PhD (IIT Madras)</p> <p>Research Interests: Graph Theory and Combinatorics, Data Structures and Algorithms, Computer Networks, Database Systems</p>		<p>Umarani J. PhD (IIT Kanpur)</p> <p>Research Interests: Biometrics, Pattern Recognition, Computer Vision and Digital Image Processing</p>
	<p>Jagadeesh Kakarla PhD (NIT Rourkela)</p> <p>Research Interests: Wireless Sensor Networks, Adhoc Networks and Internet of Things</p>		<p>Munesh Singh PhD (NIT Rourkela)</p> <p>Research Interests: WSNs, IOT, Robotics, Connected Cars, Cloud Computing, and Sensors</p>
	<p>Rahul Raman PhD (NIT Rourkela)</p> <p>Research Interests: Computer Vision, Image Processing, Machine Learning, Biometrics, Visual Surveillance, Aesthetics</p>		<p>Sanjeet Kumar Nayak PhD (IIT Patna)</p> <p>Research Interests: Cyber Security issues in IoT and Cloud Computing, Applied Cryptography, Multimedia Encryption Technique, Blockchain Technology</p>
	<p>Ram Prasad Padhy PhD (NIT Rourkela)</p> <p>Research Interests: Machine Learning, Deep Learning, Computer Vision, Autonomous Robotics, Sensor Fusion, Multi-modal Perception, Visual Surveillance</p>		<p>Pandiri Venkatesh PhD (University of Hyderabad)</p> <p>Research Interests: Combinatorial Optimization, Heuristics, Metaheuristics, Swarm Intelligence, Multi-objective Optimization</p>

Research Scholars	Roll No	Topic of Research
VEGESNA S.M. SRINIVASAVARMA	COE16D001	High Performance VLSI Architectures and Algorithms for Multicast Packet Classification for Network Intrusion Detection Systems
NILU R SALIM	COE17D001	Image Processing and Biometrics
SUBIN SAHAYAM M	COE18D001	Machine Learning and Medical Image Processing
SAMEERA SHAIK	COE18D002	Network Intrusion Detection Systems
KIRUTHIKA S	COE18D003	Machine Learning Algorithms for Image / Video Quality Prediction
MAHENDRA KUMAR R	COE18D004	Study of Some Special Graph Classes
SANTOSH KUMAR UPPADA	COE18D005	Data Mining / Analysis
JOSHI PRATIK	COE18D006	Machine Learning Approaches for Abnormal Activity Detection Using Video Surveillance
ISUNURI B VENKATESWARLU	COE19D001	Medical Image Processing
SHREE PRAKASH	COE19D002	Machine Learning, Pattern Recognition, Digital Image Processing
MOHANAPRIYA	COE19D003	Theoretical Computer Science
DEBARATI BHATTACHARJEE	COE19D004	Classifying Hand Gestures for Prosthetic Arms by Identifying EMG Signals with Machine Learning and Deep Learning
KAUSHIK R	COE19D005	Data Analytics
MERCY FAUSTINA J	COE19D006	Data Analytics
P.N. KARTHIKAYAN	COE20D002	Image Processing
SYED ZUBAIR AHMED HUSSAINY	COE20D003	In Memory Computing
ANJALI T	COE20D001	Computer Vision - face recognition at distance
V SANTHOSH KUMAR TANGUDU	COE20D004	Medical Image Processing
DEEPANJALI.S	CS21D0001	Fault Tolerant Reconfigurable Computing
SAKALI RAGHAVENDRA KUMAR	CS21D0002	Fault Tolerant Reconfigurable Architectures for Processor Data Path Element
K. VIJAYALAKSHMI	CS21D0003	Energy management algorithms for smart grid using AI/ML
LAVANYA P	CS21D0004	Image processing and machine learning

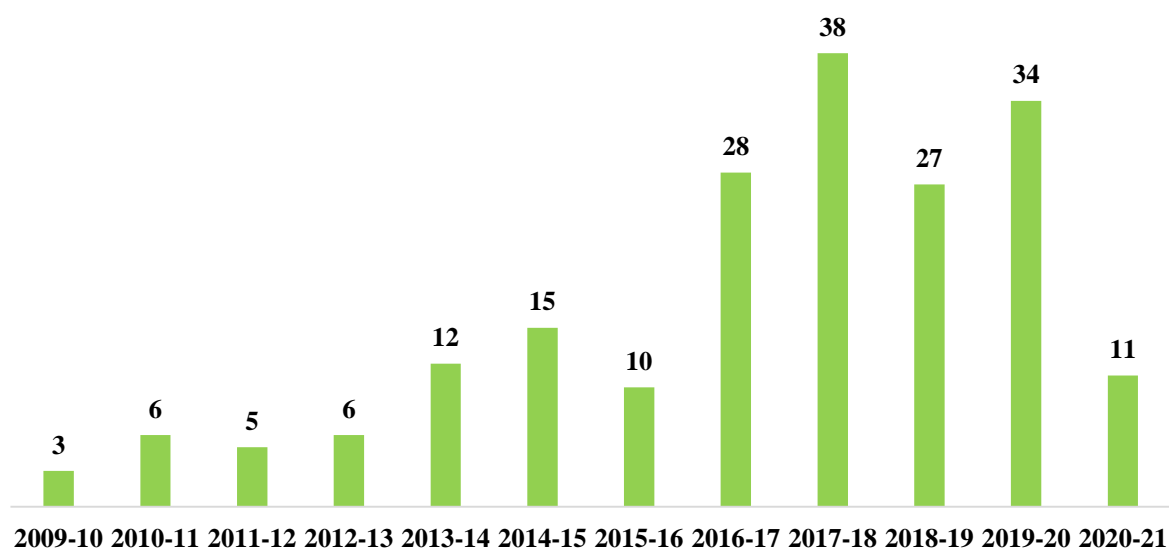
Key practice courses

- Computational Engineering
- Data Structures
- Design and Analysis of Algorithms
- Database Systems
- Automata and Compiler Design
- Computer Organization and Architecture
- Computer Networking
- Operating Systems
- Interactive Computer Graphics
- Human Computer Interface
- VLSI System Design

Key elective courses

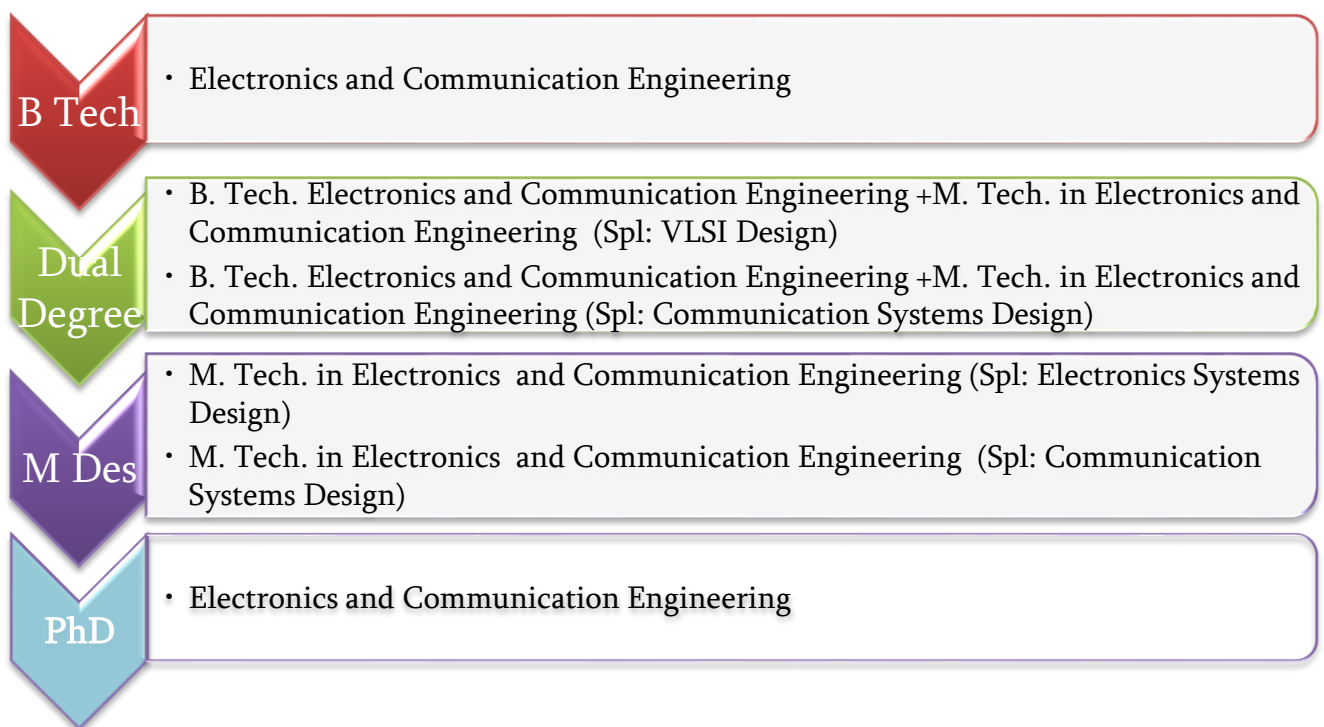
- Machine Learning
- Deep Learning
- Digital Image Processing
- Computer Vision
- Pattern Recognition
- Data mining
- Advance Data Structures and Algorithms
- Network Security
- Computer system design

Publications

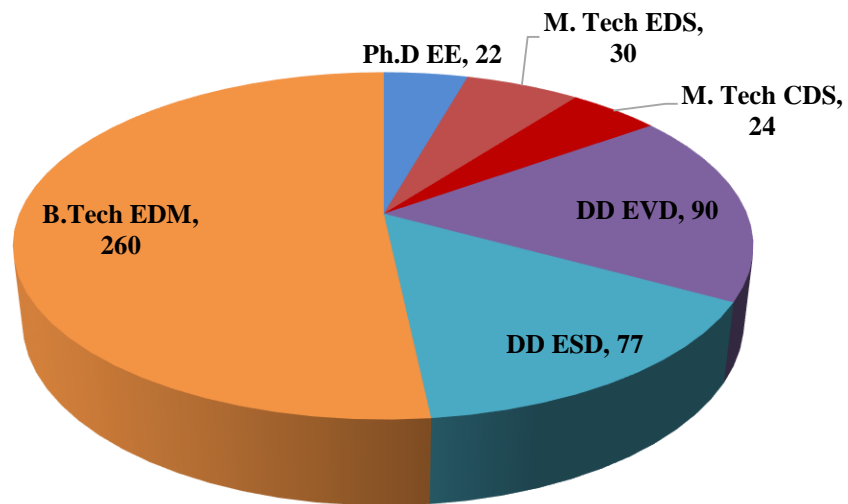


Electronics and Communication Engineering (ECE)

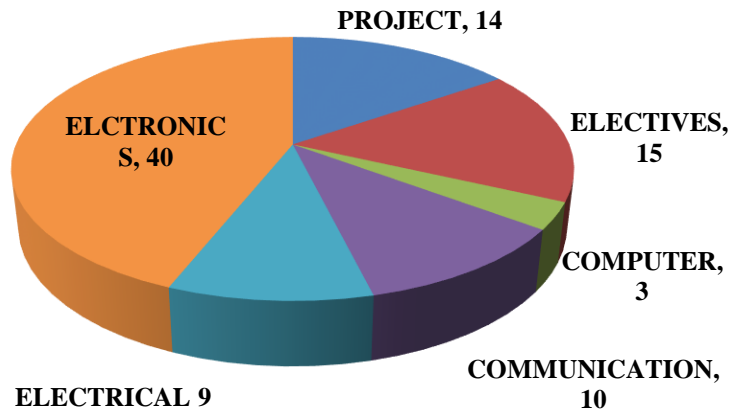
In today's competitive scenario, electronic product design and development requires the skillful blend of expert hardware and software engineering knowledge with a spirit of creativity and innovation, tempered by the practical concerns of manufacturability, cost consciousness and reliability. The Undergraduate (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.









Student Strength-ECE











CORE ENGINEERING CREDIT DISTRIBUTION- ECE



Faculty

	<p>Binsu J. Kailath PhD (IIT Madras)</p> <p>Research Interests: VLSI Design, MOS Device Modeling and Technology, MEMS</p>		<p>Priyanka Kokil PhD (NIT Allahabad)</p> <p>Research Interests: Nonlinear System, Delayed System, Multidimensional System</p>
	<p>Damodharan P PhD (IIT Madras)</p> <p>Research Interests: Power Electronics and Drives, Permanent Magnet Brushless DC and AC Drives</p>		<p>Selvajyothi K PhD (IIT Madras)</p> <p>Research Interests: Power Electronics, Drives and Control, DSP Realization of Control Algorithms in Power Electronics, FPGA/DSP Hardware</p>
	<p>Selvaraj M D PhD (IIT Delhi)</p> <p>Research Interests: Wireless Communications, Cooperative Diversity, Mobile Communications</p>		<p>Premkumar K PhD (IISc Bangalore)</p> <p>Research Interests: Scheduling in Networks, Social Networks, Cognitive Radio, Internet of Things, Big Data Analytics</p>
	<p>Asutosh Kar PhD (BIT Mesra)</p> <p>Research Interests: Advanced Signal Processing, Adaptive Filter Theory, Acoustic Echo and Feedback Signal Analysis, Hearing- Aids, Acoustic Noise Analysis.</p>		<p>Vijayakumar K PhD (NIT, Trichy)</p> <p>Research Interests: Power Electronics, Inst. and Ctrl., Embedded Controllers, Industrial Electronics, Renewable Energy Systems, Home Energy Management System, Smart Grid, Application of IoT in Energy System</p>

	<p>Chitti Babu B PhD (NIT, Rourkela)</p> <p>Research Interests: Power Electronics applications in smart distribution grids containing renewable energy resources. Design of low power photovoltaic (PV) energy system for portable applications</p>		<p>Kumar Prasannajit Pradhan PhD (NIT, Rourkela)</p> <p>Research Interests: Modeling & Simulation of Nanoscale Devices, SOI MOSFETs, FinFETs, Negative Capacitance FETs, Radiation Hardened Devices</p>
	<p>Prerna Saxena PhD (VNIT, Nagpur)</p> <p>Research Interests: Antenna Design, Metamaterials, Smart Antennas, Antenna Array Pattern Synthesis, Soft Computing Techniques in Electromagnetics, Computational Electromagnetics</p>		<p>Srijith. K PhD (IIT Madras)</p> <p>Research Interests: Fiber optic sensors, Fiber Bragg grating based sensors, Distributed optical fiber sensors, Signal processing for sensor applications,</p>
	<p>Tejendra Dixit PhD (IIT Indore)</p> <p>Research Interests: Nanoelectronics, Optoelectronics, Plasmonic, 2D Semiconductors, Organic Electronics, Memristors, Optical Memory</p>		<p>Appina Balasubramanyam PhD (IIT Hyderabad)</p> <p>Research Interests: Multimedia Quality Assessment, Image and Video Processing, Display Technologies.</p>
	<p>Bhupendra Singh Reniwal PhD (IIT Indore)</p> <p>Research Interests: Microelectronics & VLSI Design.</p>		<p>Annamraju Sai Srikar PhD (IIT Madras)</p> <p>Research Interests: Passivity analysis, Non-linear control, Position/Force/Impedance control, Robot kinematics and dynamics</p>

	<p>Rohini P PhD (IIT M)</p> <p>Research Interests: Signal Processing, Image Processing, Medical Image Analysis, Early diagnosis, Non-invasive disease prognosis</p>		<p>Rinkee Chopra PhD (IIT Bombay)</p> <p>Research Interests: Antenna Arrays, Broadband Antennas, Endfire Antennas, Circularly Polarized Antennas, Compact Antennas, Active & passive RF transceiver components</p>
	<p>Aakash Kumar Jain PhD (IIT Delhi)</p> <p>Research Interests: Silicon and Silicon Carbide based Emerging MOSFET device Modelling, Non-Volatile Memory Device Modeling, Device-Circuit Co-design for In-memory Computation, Solution Processed Semiconductor devices, Spintronics and 2-D materials-based</p>		

Research Scholars	Roll No	Topic of Research
DINESH. G	EDM14D003	Switched Capacitor based Sigma Delta ADC Design
SANTHOSH KUMAR. M	EDM15D001	Resource Allocation in Cognitive Radio Networks
DONY J MUTTATH	EDM16D001	Content Filtering in Social Networks
VIJAY PRABHU J	EDM16D002	Development of High Step-up DC-DC converter for Renewable Energy Applications.
SKANDHA DEEPSITA.S	EDM17D001	Approximate Computing Hardware Architectures for Real Time Image/Video Processing
DHAYALAKUMAR M	EDM17D002	High Performance VLSI Architectures for High Efficiency Video Coding (HEVC)
PARTHIPAN C G	EDM17D003	Design, Development and Control of Unmanned Aerial Vehicles with Multilink Manipulators
SRINIVASULU JOGI	EDM17D004	Analysis and Design of Discrete-Time State Delayed Systems
MANIKANDAN S	EDM17D005	Control System, Time delay electrical systems
GADAMSETTY MURALIDHAR	EDM17D006	Switched capacitor circuit Simulators development
KIRUBAKARAN S	EDM17D007	Wireless Communication
ADELIN MELLITA R	EDM17D008	Design, Analysis and Implementation of Printed Periodic Structures for Microwave Applications
THARANI D	EDM17D009	RF and Microwave antennas
SIMHADRI RAVISHANKAR	EDM17D010	Communications
AKHILA K	EDM18D001	Power Electronics Control of Electric Vehicle
MOUPURI SATISH KUMAR REDDY	EDM18D002	Solid State Batteries
CHANDRASEKAR L	EDM18D004	Explorations of 2D Material Based Nano Electronics Devices to Support Ballistic Transport
PALLEPOGU PRASANNA KUMAR	EDM18D005	Design of High Gain, Area Efficient Structures for Milli meter wave Applications
VANAMADI RAVI	EDM18D006	Acoustic Signal Enhancement in Hearing AIDS & Mobile Audio Devices
MUKKAPATI ASHOK BHUPATHI KUMAR	EDM18D007	Analysis and Development of High Voltage Gain Quadratic Boost Converter with Reduced Voltage Stress
AJAY SHANKAR	EDM18D008	Development of and Energy Management System Using Low Voltage DC Nano grid

S. SUDHARSON	EDM18D009	Biomedical Image Processing
TURIMERLA PRATAP	EDM18D010	Image Processing, Machine Learning
BURRA VENKATA SRIKANTH	EDM19D001	Signal and Image Processing
K SRIDHARAN	EDM19D003	Grid-Integration of Energy Systems
KEERTHANA K	EDM19D004	Wireless Communication
RAMEEZ RAJA SHAIK	EDM19D006	Modeling and Simulation of Nanoscale devices
REJI G	EDM19D007	Acoustic Signal Processing
SUBHAM KUMAR JALAN	EDM19D009	Grid-tied Solar PV Integration
ANISHA NATARAJAN	EDM20D001	Home Energy Management using IoT
JANANI .C	EDM20D004	PV array modelling and MPPT Techniques
MARIMUTHU M	EDM20D006	Energy Storage Devices
SIVAGAMI. K	EDM20D008	Design and Development of Wireless Charging Station for E-Vehicles
BARKAVI K	EDM20D002	DC-DC Converters for Electric Vehicle
CHANDRASEKARAN R	EDM20D003	Electric Vehicle, Power Electronics and Control
JOHNSON ANTONY A	EDM20D005	Energy Management System for Electric Vehicle
ANSHU PANBUDE	EDM20D009	PHYSIOLOGICAL SENSORS WITH SELF POWERED WEARABLE DEVICE
ARIGE SUMANTH	EDM20D010	A Novel Phenomenon in Ultra-wide band gap Semiconductors for Optoelectronic Applications
ARCHANA T C	EDM20D011	FBG BASED SENSORS FOR HEALTHCARE
POREDDY AJAY KUMAR REDDY	EDM20D012	Stereoscopic and VR image Quality Assessment
AMIYA KUMAR MONDAL	EDM20D013	Detection And Diagnosis Of Intentional Electromagnetic Interference Attack On Critical Network
KAVITHA S	EDM20D014	Enabling In-memory Computations with Embedded Memories for AI Accelerators
PULIKONDA MOUNIKA	EC21D0001	Stability Analysis of Non-linear discrete dynamic systems subject to interference
SRIA BISWAS	EC21D0002	Multimedia Quality Assessment (Image And Video Processing)
RAJAKUMARI V	EC21D0003	Unifying approaches to demonstrate FinFET based Leaky Integrate and Fire Neuron for Neuromorphic Computing
THUNAKALA BALA KRISHNA	EC21D0004	Devices and Antennas for Microwave and Millimeter wave Applications
TEENA MARY TREESA	EC21D0005	Complex Networks

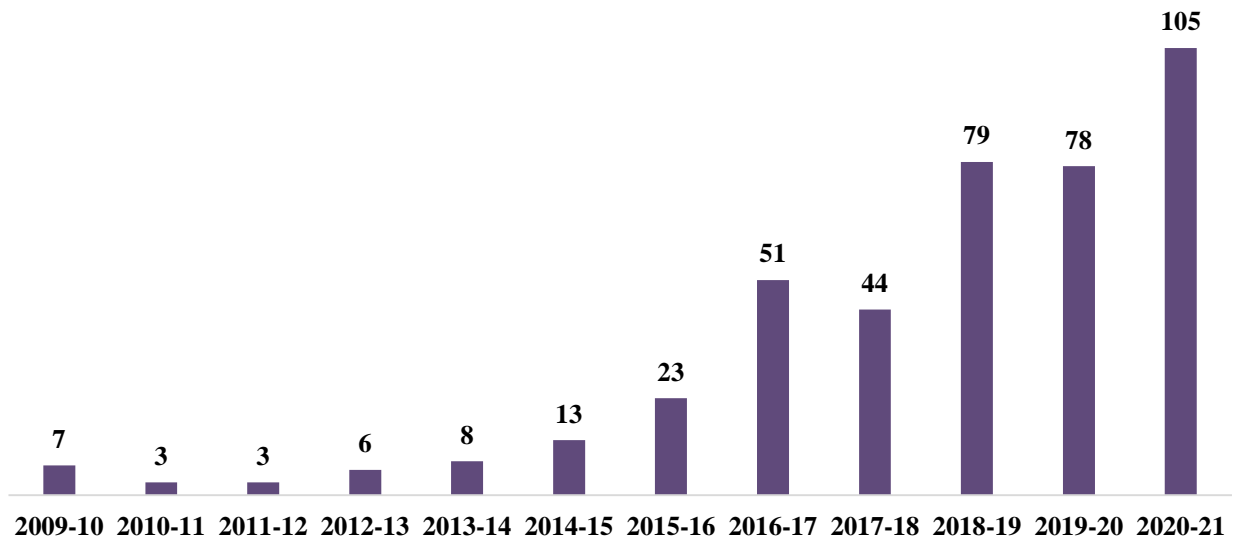
Key practice courses

- Electrical Drives
- Analog Circuits
- Digital Signal Processing
- Sensing and Instrumentation
- Digital Logic Design
- Microprocessors and Microcontrollers
- Communication Systems
- PCB Design
- VLSI Design
- Embedded Systems
- Advanced DSP Lab
- VLSI System Design
- RF System Design
- Advanced Digital Communications and Coding
- Advanced Communication Networks
- Analog and Digital communication practice

Key elective courses

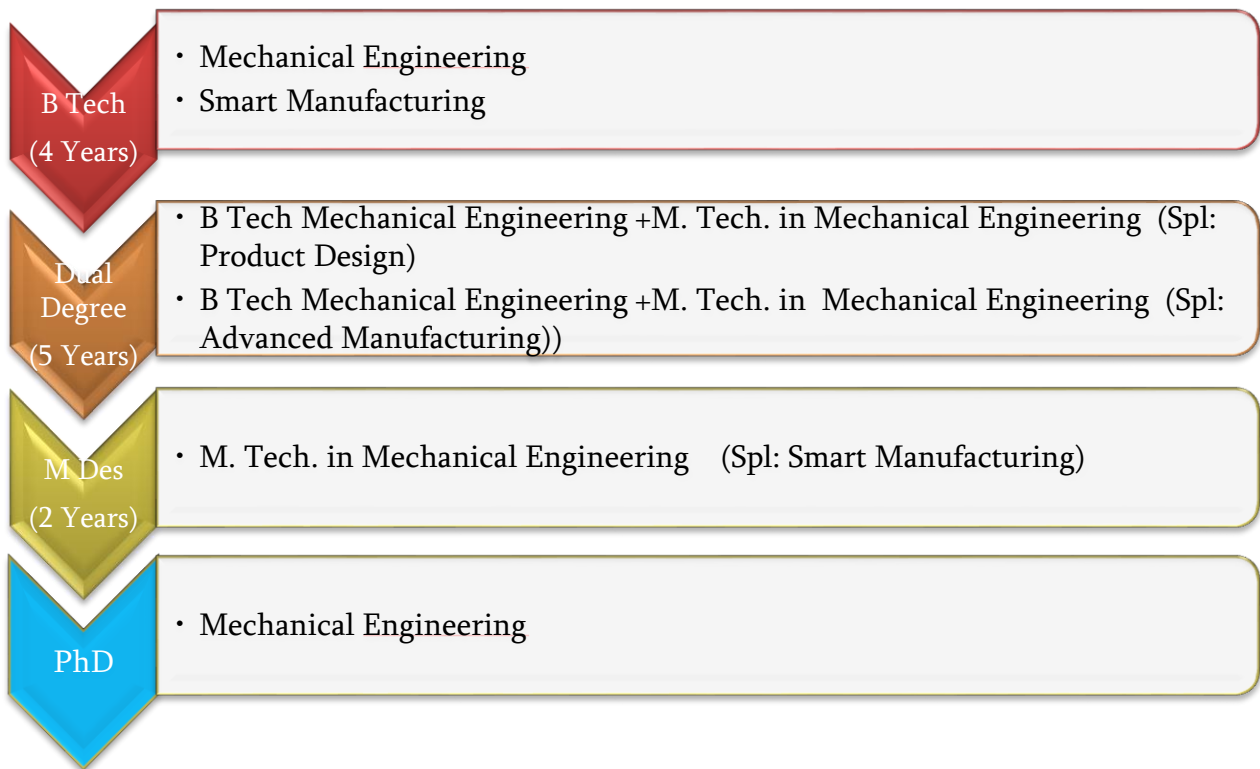
- Electromagnetic Interference and Compatibility
- Wireless Communication
- Data Communication Networks
- Design of SMPS
- VLSI Data Converters
- Advanced Communication
- Networks
- Adaptive Filter Design
- Acoustics and Audio Signal Processing
- Antenna Theory and Design
- Introduction to Photonics
- Optical Fiber Sensors

Publications

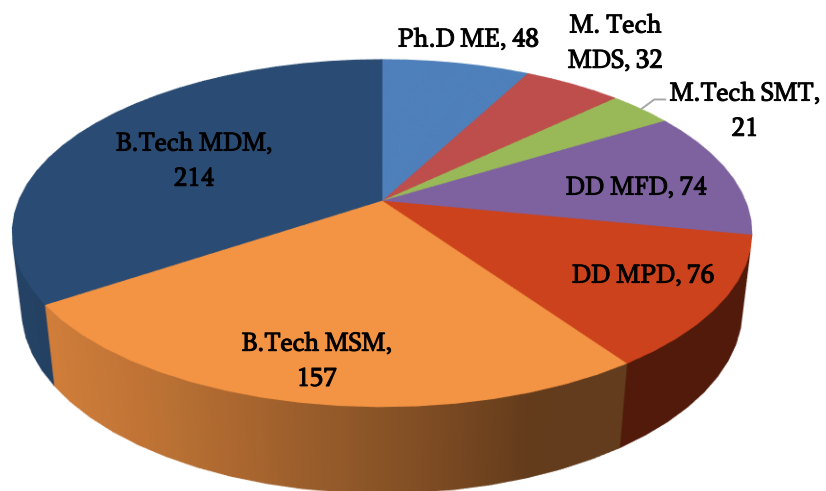


Mechanical Engineering

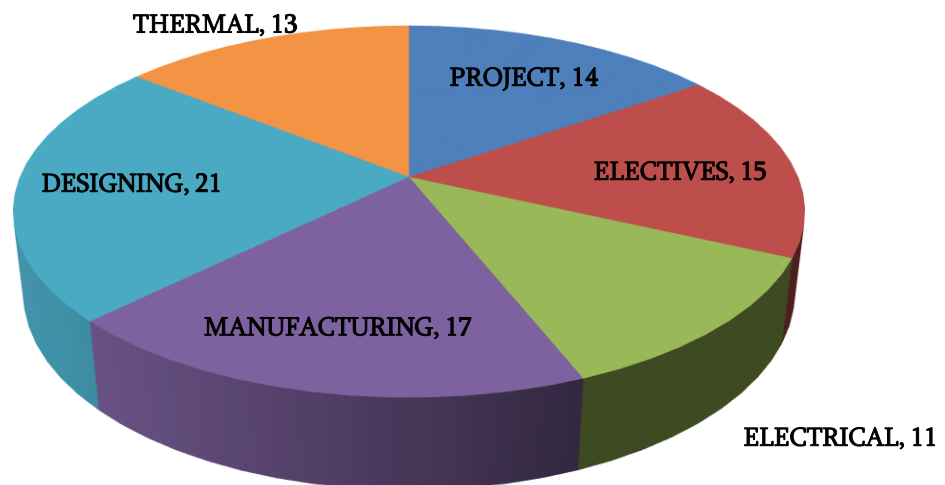
Equipped with well-structured instruction and learning resources and research facilities, the institute aims to disseminate education in the inter-disciplinary areas of mechanical design and manufacturing engineering. The UG, Dual Degree, PG, PhD programs offered by the Mechanical Engineering stream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






Student Strength-ME






CORE ENGINEERING CREDIT DISTRIBUTION- ME



Faculty

	<p>Sreekumar M PhD (IIT Madras)</p> <p>Research Interests: Robotics & Automation Serial, Parallel & Compliant Mechanisms, Smart Materials Manufacturing & IOT</p>		<p>Raja B PhD (Anna University, Chennai)</p> <p>Research Interests: Nanofluids, Enhanced Heat Transfer, Electronic Cooling Systems</p>
	<p>Jayabal K PhD (IIT Madras)</p> <p>Research Interests: Computational Mechanics, Finite Element Methods, Material Modelling</p>		<p>Jayavel S PhD (IIT Madras)</p> <p>Research Interests: Computational Fluid Dynamics, Fluid and Thermal Sciences, Heat Transfer</p>
	<p>Pandithevan P PhD (IIT Guwahati)</p> <p>Research Interests: Medical Image based Reconstruction, Bio-mimetic Design & Tissue Engineering.</p>		<p>Senthilkumaran K PhD (IIT Delhi)</p> <p>Research Interests: Additive Mfg., Sustainable & Smart Mfg., Design Mfg. Integration,</p>
	<p>Shahul Hamid Khan PhD (NIT Trichy)</p> <p>Research Interests: Multi Objective Optimisation, Supply Chain Management, Metaheuristics</p>		<p>Venkata Timmaraju Mallina Ph.D (IIT Madras)</p> <p>Research Interests: Modeling of Materials Behavior, Fatigue and Fracture, Design with Polymers and Composites</p>

	<p>Gowthaman Swaminathan PhD (North Carolina A&T State University)</p> <p>Research Interests: Polymers and composites, Nanomaterials, High temperature foams, Experimental mechanics</p>		<p>Siva Prasad AVS PhD (IIT Kanpur)</p> <p>Research Interests: Damage Mechanics Dynamic Behaviour of Materials Meshless Methods</p>
	<p>Kalpana P PhD (IIT Madras)</p> <p>Research Interests: Operations Research, Supply Chain Coordination, Logistics and Distribution Systems Management, Transport Network Optimization, Scheduling, Forecasting, Inventory Management, Game theory</p>		<p>Shubhankar Chakraborty PhD (IIT Kharagpur)</p> <p>Research Interests: Heat Transfer, Multiphase flow, Multisensor measurement and data fusion, image processing</p>
	<p>Karthick S PhD (IIT Madras)</p> <p>Research Interests: Microscale flows, Bio-Microfluidics, MEMS</p>		<p>Avinash Kumar PhD (IIT Delhi)</p> <p>Research Interests: Fabrication technologies, Fluid flow and heat transfer at Micro/Nano scale, MEMS and Bio-devices</p>

	<p>N. Rino Nelson PhD (IIT Madras)</p> <p>Research Interests: Computer Aided Engineering, Finite Element Analysis, Material Characterization, Pressure Vessel Design, Automotive Engine Design, Structural and Dynamic design (Vibration Analysis), Six Sigma Methodology</p>		<p>Kishor Kumar Gajrani PhD (IIT Guwahati)</p> <p>Research Interests: Smart Manufacturing and Industry 4.0, Green and Sustainable Machining Processes, Advanced Machining Processes, Micromanufacturing Processes, Nano and Bio-Tribology, Green Lubricants and Coolants, Coatings</p>
	<p>Kashfull Orra PhD (IIT Kanpur)</p> <p>Research Interests: Mathematical modeling and stochastic state estimation, Advanced manufacturing process and machining of super alloys, Surface modifications of bio-implant and product development, Sustainable manufacturing and tribology analysis, Friction stir welding</p>		

Research Scholars	Roll No	Topic of Research
HEMNATH A K	MDM15D002	Experimental analysis on the properties of the products made from metal deposition technique
SIDDHARTH RAMACHANDRAN	MDM16D001	Solar Thermal Applications
MATHUSUTHANAN M	MDM16D002	Thermo-mechanical Investigation of Solar PV
PRASANNA VENKADESAN V	MDM16D003	Total Hip Arthroplasty-Surgery
BADRI NARAYANAN K B	MDM16D004	A Multi-Agent Approach with Swarm Intelligence in Smart Manufacturing

MADHANAGOPAL M	MDM17D001	Additive Manufacturing
P.PARTHIBAN	MDM17D002	Fatigue Behavior of Multiscale Thermoplastic Composites
RAJASEKAR K	MDM17D003	Heat and Mass Transfer
SIVAKUMAR K	MDM17D004	Development of Composite Material for Wear Applications
ANANDAKUMAR P	MDM17D005	Polymer Composites
SATHISH KUMAR D	MDM17D006	Heat Transfer, CFD
VIVEK KUMAR CHOUHAN	MDM17D007	Supply Chain Management
JAYAKRISHNAN J	MDM17D008	Additive Manufacturing
RAJKUMAR G	MDM17D009	Robot Assisted Digital Reconstruction
REGINALD ELVIS P	MDM17D010	Additive Manufacturing
KARTHEESAN S	MDM18D001	Tribology
SATHEESHKUMAR V	MDM18D002	Multi-robot Path Planning in Constrained Environment
RAMARAJAN J	MDM18D003	CFD, Heat Transfer
A PAVAN KUMAR	MDM18D004	Design and Development of Collision Energy Absorption System
G GOPI	MDM18D005	Additive Manufacturing
SRINIVASAGAN M	MDM18D006	Design and Development of Laser Cut Stent Patterns for Enhanced Performance and Life
DILEEP R SEKHAR	MDM18D008	Studies on ZnO Nano Wires Integrated Composite Materials
PENUMURU DURGA PRASAD	MDM18D009	Interdisciplinary Cyber-Physical Systems with Swarm Intelligence and IoT in Smart Manufacturing

JAGATHEESHKUMAR S	MDM19D003	Simulation and Prediction of Residual Stresses in The Additive Manufactured Metallic Parts Suitable for Aerospace Applications
RAJALINGAM A	MDM19D005	Heat Transfer Enhancement in Micro-Channel Heat Sink
RAJENDRA KUMAR R T P	MDM19D006	Surface Engineering and Finite element analysis
RAVINDRANAIDU GANTA	MDM19D007	Continuum Damage Mechanics of High Temperature Materials
SARAVANAN M K	MDM19D008	Constitutive Modelling of Polyurea for High Strain Rate Applications
ANTON KUMANAN S A	MDM20D001	Light weighting in Electric Vehicle
KALIMUTHU T	MDM20D003	Data Analytics and Supply Chain Management
MANIKANDANBABU K	MDM20D004	Composite Materials
MURUGESAN M	MDM20D005	Additive Manufacturing of Electronics Circuits
VARUN KUMAR	MDM20D010	Microfluidics
DEIVA GANESH A	MDM20D002	Supply Chain Management
PALLAVI PATURU	MDM20D006	Product Service Systems
POTHI RAJ R	MDM20D007	Electric Vehicle Battery Cooling System
PRAKASH A	MDM20D008	Theoretical And Applied Fracture Mechanics
SOLAI PRAKASH V	MDM20D009	A Prognostic Approach for Structure-Property Correlation of an Aero Engine Blade Repair and Experimental Validation
DINESH KUMAR S	MDM20D014	Tailor Welded Blanks

CIBI R	MDM20D011	Material Modelling of Polyurea
YATHAVAN	MDM20D012	Fabrication of Highly Performable and Cost-Effective Nano Materials for Energy Conversion and Storage Applications.
VENKATESAN. A	MDM20D013	
KALYAN	MDM20D015	Smart Supply Chain and Logistics 4.0 with AI/ML
ARPAN KUMAR KEDIA	MDM20D016	To design Air handling unit with for fighting with Corona Pandemic
VISVANATHAN.K	MDM20D017	Development of Autonomous washing system for wide range of cars using Design thinking approach
ARVINDKUMAR S	MDM20D018	Impact of additive manufacturing in Automotive Supply chain and Logistics
NAGENDRA KUMAR CHAURASIA	ME21D0001	Data Assimilation In Heat Transfer And Fluid Mechanics
JASEEM SAJIDH N A	ME21D0002	Robot Assisted Bone Surgery, Additive Manufacturing

Key practice courses

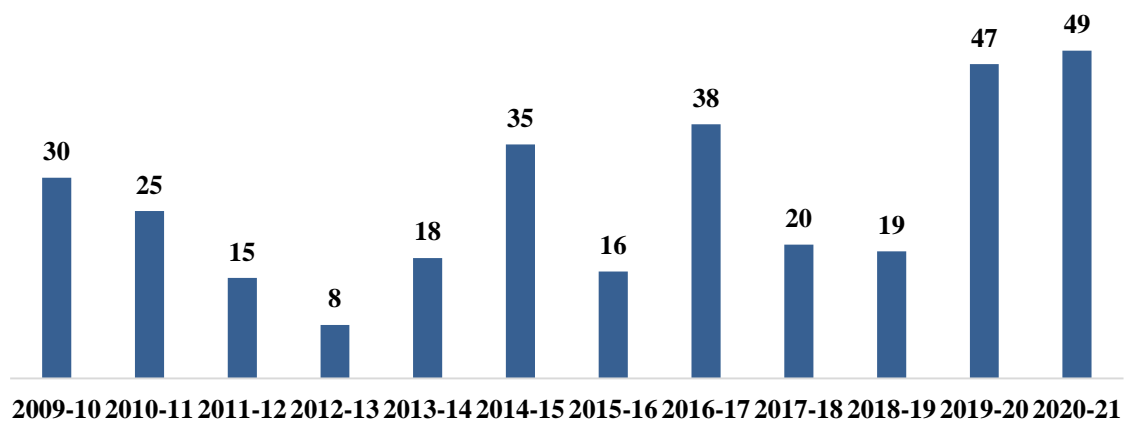
- Problem Solving and Programming
- Engineering Graphics
- Elementary Data Structures and Logical Thinking
- Manufacturing Processes
- Electrical Drives
- Production Drawing and Inspection
- Embedded Systems
- Machine to Machine Communication
- Robotics and Automation
- Engineering Electromagnetics
- Problem Solving and Programming
- Thermal Engineering Practice

Key elective courses

- 3D Printing and Rapid Tooling
- Abrasive Machining and Finishing Processes
- Additive Manufacturing
- Advanced Geometric Modelling and CAD
- Electrical Vehicle Systems
- Electrical Drives
- Failure Analysis and Design
- Finite Element Analysis
- Gas dynamics and propulsion systems
- Hybrid Electric and Electric Vehicles









- Advanced Machining Processes
- Advanced Mechanics of Materials
- Advanced Numerical Methods
- CNC Technology and Programming
- Computational Fluid Dynamics
- Computer-Aided Design and Manufacturing
- Design for Additive Manufacturing
- Design for Manufacture and Assembly
- Design of Heat Exchangers
- Design of Refrigeration and Air-Conditioning Systems
- Design optimization
- Design with Advanced Engineering Materials
- Digital Manufacturing
- Inverse problems in engineering
- Machining Dynamics and Adaptive Control
- Manufacturing Systems Engineering
- Mass transfer in industrial applications
- Micro-system Fabrication
- Principles of Vibrations
- Probabilistic Engineering Design
- Processing of Polymers and Composites
- Product Lifecycle Management
- Remanufacturing: Modelling and Optimization
- Sensors and Controls
- Smart Materials and Applications
- Surface Modification Technologies
- Sustainable Manufacturing
- Thermal management in electronic systems
- Thermal Turbomachines
- Vehicle Dynamics



Publications



Basic Sciences & Humanities (Mathematics & Physics)

Faculty

	<p>Shalu M. A. PhD (IIT Madras)</p> <p>Research Interests: Graph Theory, Algorithms, Metabolic Networks</p>		<p>Naveen Kumar PhD (IIT Delhi)</p> <p>Research Interests: Fiber Optics, Solar Thermal Energy Applications, Renewable Energy Applications</p>
	<p>Vijayakumar S. PhD (IIT Madras)</p> <p>Research Interests: Algorithms, Combinatorial Optimization, Computational Complexity</p>		<p>Tapas Sil PhD (Visva Bharati Univ)</p> <p>Research Interests: Giant Resonances of Nuclei, Relativistic Mean Field Theory in Nuclear Structure, Properties of Hot Nuclei</p>
	<p>Nachiketa Mishra PhD (IIT Madras)</p> <p>Research Interests: PDE, Numerical Analysis, Numerical Linear Algebra, Theory of Homogenization, Differential Algebraic Equations</p>		<p>Vivek Kumar PhD (IIT Delhi)</p> <p>Research Interests: Photovoltaics, Semiconductor Nanostructures, Raman & Photoluminescence Spectroscopy; Electron transfer properties of metalloproteins</p>
	<p>Anushree P Khandale PhD (RTM Nagpur University)</p> <p>Research Interests: Materials for Electrochemical Device Applications (Solid Oxide Fuel cells, Alkaline Fuel Cells, Sensors etc.) Electrochemical Impedance Spectroscopy</p>		<p>Subramani M PhD (Chennai Mathematical Institute (CMI))</p> <p>Research Interests: Algebraic and Analytic number theory, Mathematical Cryptography</p>

	Ashok Kumar Reddy Y PhD (Sri Venkateswara University)		Debolina Misra PhD (IIT Kharagpur)
	Research Interests: Thin film coatings technology, Materials Science		Research Interests: Materials Modelling from first-principles electronic structure calculations, Computational catalysis, Rational design of materials for sustainability, Defects in oxides, Strongly correlated oxides, Optical and magnetic properties of materials, Polymers

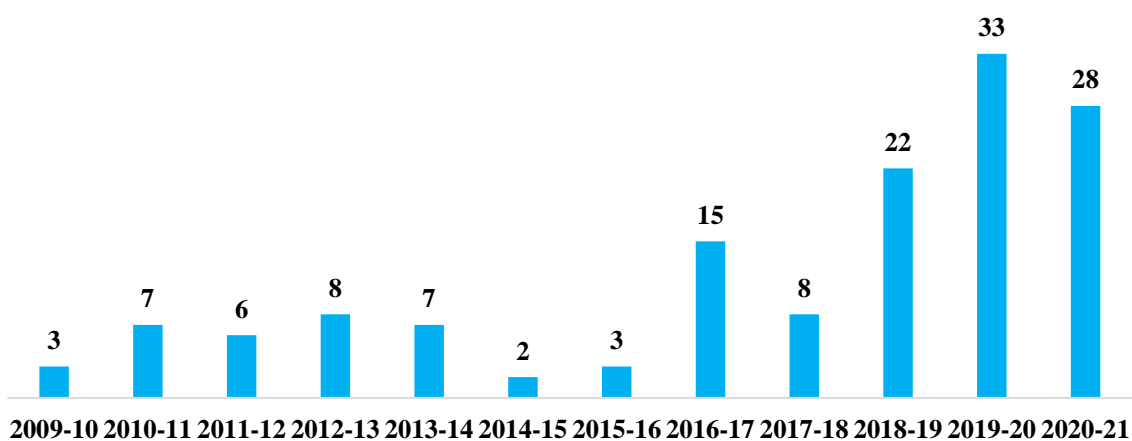
Research Scholars	Roll No	Topic of Research
CYRIAC ANTONY	MAT17D001	Graph Theory and Algorithms
N N SUBHASHREE OJHA	PHY16D001	Fiber Optic Interferometric Sensor
JOYASHREE MONDAL	MAT18D001	Algorithms Design
SNIGDHASHREE NAYAK	MAT18D002	Numerical Analysis to Partial Differential Equations
MADHAB BARMAN	MAT18D004	Numerical Analysis to Differential Equation
SAGAR ZEPHANIA C F	PHY18D002	Quantum Thermodynamics
HARISANKAR P C	PHY18D003	Nuclear Equation of States and Symmetry Energy
T. ANUSUYA	PHY18D004	Investigation on Graphene Quantum Dots for Sensing and Energy Applications
PRITAM PRADEEP SHETTY	PHY18D005	Phase Structured Coherent Light Beams for Sensing Applications
HEMALATHA V	PHY19D001	Photonics Based Water Purification

DIVYA D	MAT19D001	Algorithms Design
KIRUBAKARAN V K	MAT19D002	Graph Theory
PENNA VENKATA KARTHIK YADAV	PHY19D002	Metal oxide thin films for photodetector application
SRIDHAR T	MAT20D001	Number Theory
VINOTH KUMAR R	PHY20D001	Solid Oxide Fuel Cell
HEMANT SHARMA	MAT20D002	Numerical Methods and Analysis
MALAR MARIA ANCY A	PH21D0001	Proton conducting Solid Oxide Fuel Cell

Key elective courses

- Advanced Partial Differential Equation
- Topics in Analytic Number Theory
- An Introduction to Cryptography
- Optimization Methods
- Graph Theory
- Randomized Algorithms
- Waves and Vibrations
- Materials Fabrication and Characterization Techniques
- Materials Design for Sensor Systems
- Engineering Optics
- Physics of Materials
- Green Energy and Product Design
- Introductory Quantum Science for Engineers
- Statistical Mechanics
- Fiber Optics in Communication
- Opto Electronic Devices
- Photovoltaic Science and Engineering
- Material Science in Energy Technology

Publications



School of Inter-Disciplinary Design and Innovation (SIDI)

Faculty

	<p>Sudhir Varadarajan, PhD (IIT Madras)</p>		<p>Raguraman Munusamy PhD (IISc)</p>
	<p>Research Interests: Complex responsive processes in design and innovation, Product/service innovation, Conceptual design</p>		<p>Research Interests: Multi-Scale Modelling, Advanced Numerical Simulations, Design for Extreme Scenarios (Blast, High velocity projectile impacts, Bird Strike & Fan blade off), Design for X - Tolerance stack-up analysis of precision assemblies, Additive Manufacturing, Systems Engineering, Robust Design, Project Management</p>
	<p>Jayachandra Bingi PhD (IIT Madras)</p>		<p>Pandiyarasan Veluswamy PhD (National University Corporation Shizuoka University, Japan)</p>
	<p>Research Interests: Photonics for Defense and medical applications (Photonic devices and sensors) Bio-inspired research and development</p>		<p>Research Interests: Nanomaterials development for energy harvesting and storage applications, Instrument development for Fabricate and testing of MEMs device, Multi-Channel-Electro-spinning Instrument</p>
	<p>Karthik C PhD (IIT Madras)</p>		<p>Parvathy Das PhD (NIT Trichy)</p>
	<p>Research Interests: Design of Minimally, Invasive Robotic Surgical Tools, Design of Surgical Devices, Soft Robotics Application of Compliant Mechanisms to Surgical Tools</p>		<p>Research Interests: Life Writing, Narratives, Theories of Self and Identity, Literature, Science, and Philosophy</p>


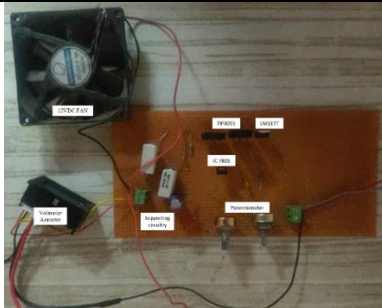


Key core/practice courses

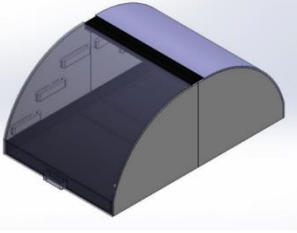




- Sociology of Design
- Systems Thinking for Design
- Designing Intelligent systems (Smart Product Design)
- Entrepreneurship and Management Functions
- Prototyping and Testing
- Design Culture and Society
- Design Theory and Methods
- Materials and Processes
- Industrial Design Sketching
- Product Communication and Presentation
- Design Workshop
- Design of Cyber-Physical systems /Smart Products
- Digital Product Sketching and Visualization
- Interaction Design
- Visual Communications
- Design for Quality and Reliability
- Strategic Management of Design and Innovation
- Sustainable Product and Service Systems

Key elective courses

- Model Based Design
- Design Research Methodologies
- Simulation Driven-Design
- Hybrid Electric Vehicle Design
- Design of Biomedical and Healthcare Devices
- Design with Additive Manufacturing
- Design of Non-Invasive Products
- Embedded Kinetic Art
- Bio-inspired Design
- Game Design and Development
- Animation Design
- Graphic Design
- TRIZ

Products Developed

Title	Description	Inventors	Picture
Period Power	A thin, discreet, reliable and wearable for treating Dysmenorrhea (menstrual pain) relief that can be controlled using a mobile application.	Ankita Chandra, Manali Thonte, Sudhir Varadarajan	
Universal Electric Vehicle Supply Equipment	A Universal EV charger PoC to enable setup of large-scale charging stations that cater to different standards of charging followed by the EV OEMs	Sahil Uttam Bhandare, Sudhir Varadarajan	
Smart motorcycle handlebar for better user experience	A simplified handlebar assembly through part consolidation and addition haptic feedback systems to improve user experience and fuel efficiency	Saranathan R, Sudhir Varadarajan	
LITSAN : Light based sanitizer	Light based sanitiser with bio-inspired form. The product is launched to market for sanitizing grocery items.	BiRD Lab and VLOG innovations Dr. Jayachandra Bingi, Mr. Loganathan V	

Title	Description	Inventors	Picture
Form design sanitization box	The efficient form for food sanitization for hotels and food delivery entities	Mr. P. Raghavan, Dr. Jayachandra Bingi	  <p data-bbox="1043 788 1235 810">(a) Curved design prototype</p>
SPARK SHOE	The spark shoe for augmenting the running capabilities of the security forces through its bio-inspired shoe design	Ms. Anakha Suresh, Dr. Jayachandra Bingi	 <p data-bbox="1110 1104 1279 1122">Figure 4.3: Image of the sole made (right foot)</p>  <p data-bbox="1094 1364 1299 1382">Figure 4.4: Front view image of the shoe made (left foot)</p>
Leguerre Gaussian & Hermit Gaussian mode converter	The optical device is based on the noval principle of thermo-optic refraction. First of its kind optical beam mode converter	Mr. Pritam P Shetty, Dr. Jayachandra Bingi (Patented: 202141007641)	

IV. 8th Convocation

Eighth Convocation was held on 31st October 2020 and the Degrees were awarded virtually in the presence of Dr. K. Kasturirangan, Chairman, National Education Policy (NEP) 2020 Committee, who was the Chief Guest; Shri. Arun Jain, Chairman and Managing Director, Intellect Design Arena, Chennai, the Guest of Honour; Prof. S Sadagopan Chairman, Board of Governors, IIITDM Kancheepuram; Prof. Banshidhar Majhi, Director, IIITDM Kancheepuram; Senate Members, faculty and staff of the Institute.

Prof. Banshidhar Majhi awarded degrees to 146 UG, 112 DD, 43 PG and 5 Ph D students, totaling 306 graduates. The accolades to the winners of various categories of awards were awarded by the Chief Guest.

SUMMARY OF GRADAUNDS

Sl. No.	Degree	Discipline	No. of Students
1.	B. Tech	COE	40
2.		EDM	40
3.		MDM	35
4.		MSM	31
5.	DD	CED	40
6.		ESD	18
7.		EVD	19
8.		MFD	18
9.		MPD	17
10.	M. Tech	CDS	9
11.		EDS	9
12.		MDS	11
13.		SMT	12
14.	Ph. D	EDS	1
15.		MDS	1
16.		EC	1
17.		ME	3
18.		PHY	1
Total			306

MEDALS AND PRIZES

ACADEMIC PROFICIENCY

Roll No.	Student Name	Prize
CED15I029	PRATHAMESH A DEGWEKAR	Institute Gold Medal for the All Rounder of the Graduating Batch
MDM16B038	Y ADITYA VARMA	Institute Gold Medal for the Best Graduate across B Tech
CED15I014	VIDHATHRI	Institute Gold Medal for the Best Post Graduate across Dual Degree
CDS18M003	GOWRI MURALEEDHARAN B	Institute Gold Medal for the Best Post Graduate across M Tech
COE16B018	HARINI R	Institute Medal for the Best Graduate in B Tech from COE, Dept. of CSE
EDM16B016	K BHARATI	Institute Medal for the Best Graduate in B Tech from EDM, Dept. of ECE
MDM16B038	Y ADITYA VARMA	Institute Medal for the Best Graduate in B Tech from MDM, Dept. of ME
MSM16B015	KARAMBOR CHAKRAVARTY SRIYA	Institute Medal for the Best Graduate in B Tech from MSM, Dept. of ME
CED15I014	VIDHATHRI	Institute Medal for the Best Dual Degree Graduate from CED, Dept. of CSE
ESD15I010	S PRANAV KUMAR	Institute Medal for the Best Dual Degree Graduate from ESD, Dept. of ECE
EVD15I007	F KIRAN ROBERT	Institute Medal for the Best Dual Degree Graduate from EVD, Dept. of ECE
MFD15I004	POTNURU HEMA PRANEETHA NAIDU	Institute Medal for the Best Dual Degree Graduate from MFD, Dept. of ME
MPD15I019	RATNANJALI TIWARI	Institute Medal for the Best Dual Degree Graduate from MPD, Dept. of ME
CDS18M003	GOWRI MURALEEDHARAN B	Institute Medal for the Best Post Graduate from CDS, Dept. of ECE
EDS18M013	ARTHI R	Institute Medal for the Best Post Graduate from EDS, Dept. of ECE
MDS18M002	BHAVSAR DIVYAKUMAR ASHIT	Institute Medal for the Best Post Graduate from MDS, Dept. of ME
SMT18M007	VISHAK P M	Institute Medal for the Best Post Graduate from SMT, Dept. of ME

BEST PROJECTS AWARD

Roll No.	Name	Prize	Project Title
MDM16B025	RAHUL NARASIMHAN R	Institute Gold Medal for the Best Interdisciplinary Project across B Tech	Motorized Exoskeleton device for Lower-Limb Amputees
MPD15I014	ARAVIND.C.B	Institute Gold Medal for the Best Interdisciplinary Project across Dual Degree	Design and Analysis of Low-Temperature Differential Stirling Engines
SMT18M007	VISHAK P M	Institute Gold Medal for the Best Interdisciplinary Project across M Tech	Design and Development of Optical Non-contact Monitoring Device for Automotive Belt Monitoring
COE16B003	ARUN NARAYANAN H	Institute Medal for the Best Project in B Tech from COE, Dept. of CSE	Equivariant Neural Networks for the Special Orthogonal Group in 2 Dimensions
EDM16B008	GATRAM MANOJ VENKATA SAI	Institute Medal for the Best Project in B Tech from EDM, Dept. of ECE	Parameter Estimation of Photovoltaic Module for Varying Climatic Conditions
MDM16B038	Y ADITYA VARMA	Institute Medal for the Best Project in B Tech from MDM, Dept. of ME	Numerical Modelling and Optimization of Heat Transfer and Thermal Contact Resistance in Electronics Applications
MSM16B034	SIDDHANT KARMAKAR	Institute Medal for the Best Project in B Tech from MSM, Dept. of ME	Compact Reciprocating Power block for sCO ₂ Brayton Cycle
CED15I043	EASHAN DASH	Institute Medal for the Best Project in Dual Degree from CED, Dept. of CSE	Dynamic Routing Agreement Based Capsule Network Architecture
ESD15I020	S SANJANA	Institute Medal for the Best Project in Dual Degree from ESD, Dept. of ECE	Nonlinear Acoustic Echo Cancellation with Kernelized Adaptive Filters

EVD15I007	F KIRAN ROBERT	Institute Medal for the Best Project in Dual Degree from EVD, Dept. of ECE	Design of CMOS Broadband (100MHz-12GHz) Receiver
Roll No.	Name	Prize	Project Title
MFD15I010	PARTH LAL	Institute Medal for the Best Project in Dual Degree from MFD, Dept. of ME	A Novel Approach for Manufacturing of Large Sized Flat Composite Panels Using Filament Winding Setup
MPD15I019	RATNANJALI TIWARI	Institute Medal for the Best Project in Dual Degree from MPD, Dept. of ME	Rayleigh-Benard Convection for Single and Bi-layer Fluid systems
CDS18M003	GOWRI MURALEEDHAR AN B	Institute Medal for the Best Project in M Tech from CDS, Dept. of ECE	Scheduling for Minimum Power Expenditure in Wireless Systems with Reconfiguration Delay
EDS18M004	SOWMIYA S	Institute Medal for the Best Project in M Tech from EDS, Dept. of ECE	Modified Wearable Thermoelectric Generator
MDS18M005	KETAN VINAYAK WARGHAT	Institute Medal for the Best Project in M Tech from MDS, Dept. of ME	CFD Analysis on a Concentric Tube Heat Exchanger with Active and Passive Techniques of Heat Transfer Enhancement
SMT18M003	SHASHWAT PANDEY	Institute Medal for the Best Project in M Tech from SMT, Dept. of ME	A Study of Machine Learning Applications for Big Data Analytics in Smart Manufacturing: Design & Evaluation

HONOURS WITH DISTINCTION

Sl. No.	Roll No	Student Name	Degree
1.	CED15I042	G. SARAVANA BALAJI	Bachelor of Tech. (Honours) and Master of Tech. in Computer Engineering with Distinction
2.	ESD15I010	S PRANAV KUMAR	Bachelor of Technology (Honours) in Electronics and Communication Engineering with Specialization in Design and Manufacturing and Master of Technology in Signal Processing and Communication Systems Design with Distinction
3.	ESD15I020	S SANJANA	
4.	EVD15I007	F KIRAN ROBERT	Bachelor of Technology (Honours) in Electronics and Communication Engineering with Specialization in Design and Manufacturing and Master of Technology in VLSI and Electronic Systems Design with Distinction
5.	MPD15I019	RATNANJALI TIWARI	Bachelor of Technology (Honours) in Mechanical Engineering with Specialization in Design and Manufacturing and Master of Technology in Product Design with Distinction
6.	COE16B001	ANEESH D H	Bachelor of Technology (Honours) in Computer Engineering with Distinction
7.	COE16B018	HARINI R	
8.	COE16B019	HRISHIKESH. P.M	
9.	COE16B025	MANTRIPRAGADA ANJANI SANKAR	
10.	COE16B041	GORANTLA MEGHANA	
11.	COE16B042	M VINITHA	
12.	COE16B044	S AJAY NARAYANAN	
13.	EDM16B001	ABIRAMI A	Bachelor of Technology (Honours) in Electronics and Communication Engineering with Specialization in Design and Manufacturing with Distinction
14.	EDM16B015	JEEVA KESHAV S	
15.	MDM16B025	RAHUL NARASIMHAN R	Bachelor of Technology (Honours) in Mechanical Engineering with Specialization in Design and Manufacturing with Distinction
16.	MDM16B038	Y ADITYA VARMA	
17.	MSM16B015	KARAMBOR CHAKRAVARTY SRIYA	Bachelor of Technology (Honours) in Mechanical Engineering - Smart Manufacturing with Distinction

Rules for Honours:

1. Maintained Overall CGPA of 9.0 or above in each semester
2. Cleared all subjects in single attempt with Grade from S to D
3. No Backlog of courses
4. Earned Additional 09 credits for Honours program

LIST OF STUDENTS RECEIVED DISTINCTION

Sl. No.	Roll No	Name of the Student	Degree
1.	CDS18M001	MEDARA SREENIVASULU	Master of Technology in Electronics and Communication Engineering with Specialization in Communication Systems Design with Distinction
2.	CDS18M003	GOWRI MURALEEDHARAN B	
3.	CDS18M006	SANJANA PAUL	
4.	CDS18M008	B VENKATA RAGHU RAM	
5.	CDS18M009	RAKSANTA S	
6.	EDS18M002	THUMPIRI REDDY MANASA	Master of Technology in Electronics and Communication Engineering with Specialization in Electronics Systems Design with Distinction
7.	EDS18M010	A. SRIVANI	
8.	EDS18M013	ARTHI R	
9.	MDS18M001	VALECHA DHEERAJ KAILAS	Master of Technology in Mechanical Engineering with Specialization in Mechanical Systems Design with Distinction
10.	MDS18M002	BHAVSAR DIVYAKUMAR ASHIT	
11.	MDS18M003	CHAVAN AJITKUMAR ANKUSH	
12.	MDS18M006	AVINASH MOHAN M	
13.	SMT18M003	SHASHWAT PANDEY	Master of Technology in Mechanical Engineering with Specialization in Smart Manufacturing with Distinction
14.	SMT18M007	VISHAK P M	
15.	CED15I002	R MUKESH	Bachelor of Technology and Master of Technology in Computer Engineering with Distinction
16.	CED15I007	GOVIND K P	
17.	CED15I009	MANASA KANDIMALLA	
18.	CED15I014	VIDHATHRI	
19.	CED15I021	ANMOL GUPTA	
20.	CED15I024	V DIVYA	
21.	CED15I029	PRATHAMESH A DEGWEKAR	

22.	CED15I039	V.K. DINGU SAGAR	
23.	CED15I040	V. AKASH	
24.	CED15I043	EASHAN DASH	
25.	EVD15I016	VYSHAK NATH C A	Bachelor of Technology in Electronics and Communication Engineering with Specialization in Design and Manufacturing and Master of Technology in VLSI and Electronic Systems Design with Distinction
26.	MFD15I004	POTNURU HEMA PRANEETHA NAIDU	Bachelor of Technology in Mechanical Engineering with Specialization in Design and Manufacturing and Master of Technology in Advanced Manufacturing with Distinction
27.	COE16B006	BALMOORI PRAGNYA	
28.	COE16B008	BONDU VENKATA KUMARA VAISHNAVI	
29.	COE16B034	SHIVESH M	
30.	COE16B037	VALLABHANENI SAI PHANI TEJA	Bachelor of Technology in Computer Engineering with Distinction
31.	COE16B039	YANALA VENI MADHAVI	
32.	COE16B043	MEGHANA REDDY TELLURI	
33.	EDM16B016	K BHARATI	Bachelor of Technology in Electronics and Communication Engineering with Specialization in Design and Manufacturing with Distinction
34.	EDM16B041	DAWARE PRATHAMESH MAHIPATI	
35.	MDM16B022	PAVITRA BHAGAVATULA	Bachelor of Technology in Mechanical Engineering with Specialization in Design and Manufacturing with Distinction
36.	MSM16B001	AILONE AKANKSHA	Bachelor of Technology in Mechanical Engineering - Smart Manufacturing with Distinction
37.	MSM16B035	THIPPABATTUNI ANTONY ROHIT	

V. Institute Library

The institute library is fully equipped with excellent collection of resources in the form of books, periodicals (Print magazine & Journals), e-books, e-journals, CD ROMs, leading national newspapers and NPTEL course video contents related to engineering, technology, humanities, and management and committed to support the institute's mission. Our library is one among the few in the world to have Kindle, an electronic book reader which contains plenty of classical literatures and technical books for the use of students. Also, library is having subscription of Anti-plagiarism software (Turnitin and Urkund) which helps students to learn how to avoid plagiarism and improve their academic writing. Our library is using an automated Library and Information Management software KOHA. All the registered users (Students, Faculty members, Staffs) can access our institute library from anywhere within the campus through LAN/Wi-Fi and also outside the campus through their own mobile network.

This 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.

ONLINE RESOURCES SUBSCRIPTION

IIITDM library subscribed IEEE IEL Online package with unlimited users' access apart from the resources available through e-ShodhSindhu consortium. It contains 218 Journals & Magazines, 1725 conference titles and more than 3900 approved and published IEEE standards.

LIBRARY RESOURCES: STATISTICS

Resources	Total Numbers	Newly Added (Apr' 20 – Mar' 21)
Books (Text & References)	6236	07
Journals/Magazines (print)	37	-
News Papers	04	-
CD-ROM/DVDs	757	04
Theses and Dissertation	534	01
E-Books	22	-
E-Journals (IEEE, ACM, ASME etc.)	3129	-
Gratis	610	51

E-SHODHSINDHU CONSORTIUM

Based on the recommendation of an Expert Committee, the Ministry of Education has formed e-ShodhSindhu merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The main objective of the e-ShodhSindhu: Consortia for Higher Education E-Resources is to provide access to qualitative electronic resources including full-text, bibliographic and factual databases to academic institutions at a lower rate of subscription. We are one of the members of e-ShodhSindhu consortium and we are getting access to the following three e-Journal resources. It has unlimited users with unlimited download access. The total numbers of e-Journals are 2911. The details of the resources are listed below.

Resources	Total Number of Journals
ACM Digital Library	1153
ASME Journals Online	29
Springer Link + Nature Journal	1729

98 CFTIs 217 Universities 134 Tech. Inst. 3200+ Colleges 10000+ e-Journals 199500+ e-Books 600000 e-Books through NDL 22 Resources 4 Databases

Summary for the Year: 2021

REMOTE ACCESS FOR E-RESOURCES

Due to pandemic situation, students/scholars are studying from home. Hence, the library requested the publisher to provide the remote access and now students are able to access the e-resources from their home using remote login option.

E-Books Access:

We have a collection of prescribed text e-books published by Pearson. Also we are one of the members of National Digital Library and anyone can register using our institute e-mail address and access millions of E-Books.

IEEE.org | IEEE Xplore Digital Library | IEEE-SA | IEEE Spectrum | More Sites Cart | Create Account | Personal Sign In

IEEE Xplore[®]
Digital Library

Access provided by:
Indian Institute of Information
Technology Design &
Manufacturing
» Sign Out

IEEE

Browse ▾ My Settings ▾ Get Help ▾

All ▾ Enter keywords or phrases (Note: Searches metadata only by default. A search for 'smart grid' = 'smart AND grid')

Advanced Search | Other Search Options ▾

Remote Access

Institutional Authentication

Remote Access is no longer available for your institution. For questions, please contact IEEE Online Support.

E-Magazine and Journal:

IIITDM Kancheepuram has wide range of access to E-Magazines; During pandemic, we circulate soft copy of the available e-magazines to all our users. Also we got trial access for IOP e-journals for the period of three month.

ANTI-PLAGIARISM TOOLS

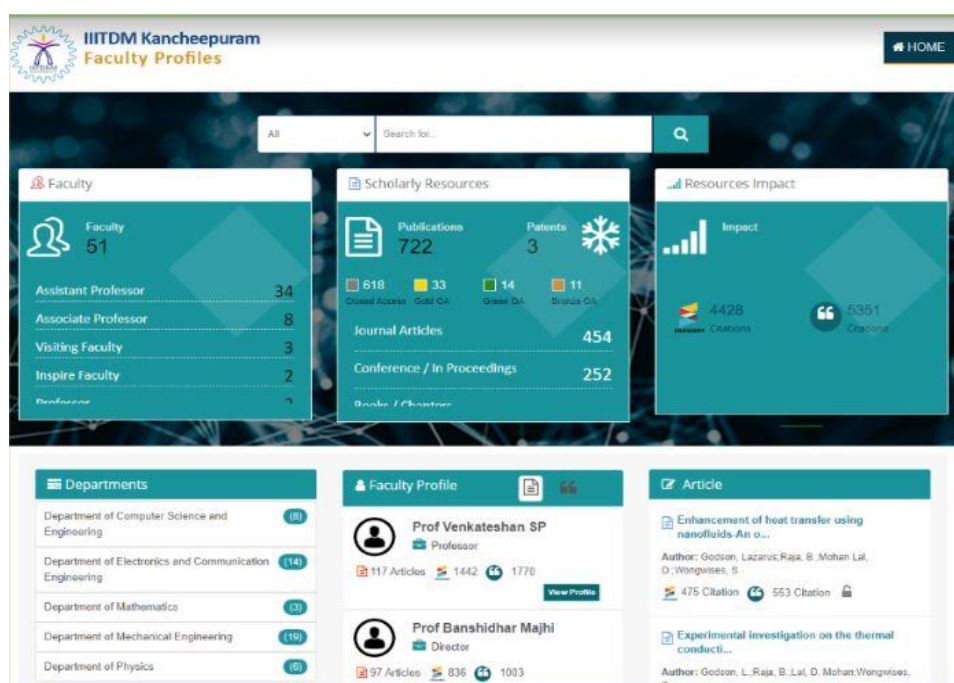
Based on the recommendations of Sub-Committee, National Steering Committee (NSC) of eShodhSindhu., The MHRD, Govt. of India has initiated a program called “ShodhSuddhi” which provides access to Plagiarism Detection Software (PDS) to all universities/Institutions in India. Under this initiative, URKUND a Web Based Plagiarism Detection Software system is being provided to all Users of universities/Intutions in the country and we are getting access to this software as well. The Institute has subscription to Turnitin software also.

The screenshot shows the Turnitin interface for a document titled "A Natural Setting" by CAEL BURROUGHS. The document text includes: "A History of Exploration and Settlement in Yosemite Valley", "Yosemite National Park is a United States National Park spanning eastern portions of Tuolumne, Mariposa and Madera counties in east central California, United States. Although not the first designated national park Yosemite was central to the development of the national park idea since its first discovery by non-indigenous people in mid-nineteenth century, Yosemite Valley has held a special, even religious, hold on the American conscience because Its beauty makes it an incomparable valley and one of the grandest of all special temples of Nature. While Yosemite holds a special grip on the western mind,". The match overview table on the right shows the following results:

Match Number	Source	Percentage
1	www.nps.gov Internet source	15%
2	www.absoluteastronomy.com Internet source	10%
3	www.nydailynews.com Internet source	4%
4	Brick, Michael. "His ... Publication	3%

ONLINE FACULTY PROFILE

We have created our own IRINS portal with the help of INFLIBNET centre. It is web-based Research Information Management (RIM) service developed by the Information and Library Network (INFLIBNET) Centre in collaboration with Central University of Punjab. This portal facilitates academic, R&D organizations and faculty members, scientists to collect, curate and showcase the scholarly communication activities and provide an opportunity to create the scholarly network.



USER AWARENESS TRAINING ON E-RESOURCES

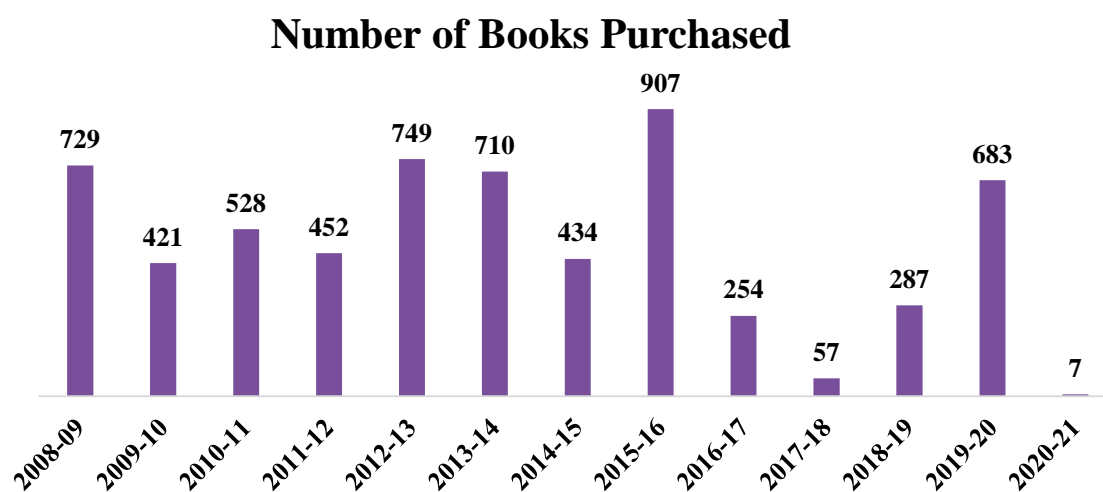
We are subscribing IEEE Xplore Digital Library for the benefit of our students and faculty members research and they update new features regularly. So we have arranged an online training session on 20th October 2020 for our Faculty members and Research scholars so that our users will utilize the subscribed content more effectively.

LIBRARY SERVICES DURING PANDEMIC SITUATION

Library has provided full support for our institute users during pandemic situation. We arranged remote access for subscribed e-journals. Also, we created user profile in IRINS portal for faculty members. We helped students to check anti plagiarism for final year projects report. Moreover, we circulate soft copy of the available e-magazines to all our institute users.

WORKSHOP/SEMINAR/CONFERENCES ATTENDED BY LIBRARY STAFF MEMBERS

Sl. No.	Staff member	Title of the event	Organized by
1	G. Perumal	Creating greater user experiences for Academic libraries	EBSCO Information services on 12/05/2020
2	G. Perumal	Libraries in new normal: Challenges and strategies for post COVID-19 pandemic situation	EBSCO Information services on 26/05/2020
3	G. Perumal	Paradigm shift towards online libraries during pandemic	New Age International Publisher on 12/09/2020
4	S. Sindhu	Digital preservation and management: emerging trends in libraries	EBSCO Information services on 22/07/2020
5	S. Sindhu	Creating digital library by using open source software DSPACE: Basic to advance	Rajashi chhatrapati shahu college, Kolhapur 15/07/2020
6	S. Sindhu	Discovery services and related aspects	Springer Nature (SALIS) on 28/07/2020
7	S. Sindhu	Digital transformation: e classroom & learning management system	IQAC on 21/07/2020



VI. Research and Innovation

Never stop fighting until you arrive at your destined place - that is, the unique you. Have an aim in life, continuously acquire knowledge, work hard, and have perseverance to realize the great life.

--Dr A. P. J. Abdul Kalam

PhD Scholars @ IIITDM Kancheepuram

PhD Scholars who have defended their thesis as on 31.03.2021

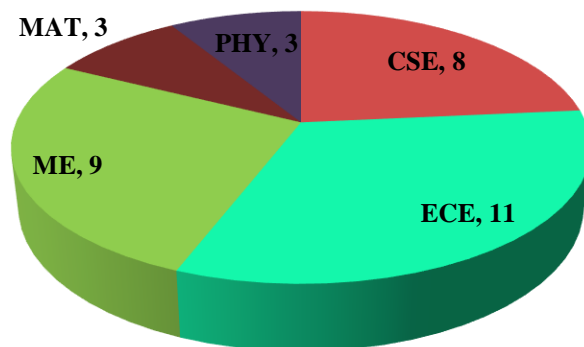
Sl. No.	Roll No.	Scholar	Date of Défense	Supervisor	Title of the Thesis
1.	EDM09D001	Madhevan B.	06/02/2015	Dr. Sreekumar M.	Implementation of Role Assignment in Multi Robots using Leader Follower Approach
2.	PHY10D001	Ramachandran K.	23/12/2015	Dr. Naveen Kumar	Special Tailoring through Concatenated All-Fiber Interferometers for Communication and Sensing Applications
3.	EDM10D002	Rajin M. Linus	20/01/2016	Dr. Damodharan P.	Study of Maximum Power Point Tracking Algorithms for Permanent Magnet Synchronous Generator based Wind Energy Conversion System
4.	MAT10D001	Devi Yamini S.	23/06/2016	Dr. Shalu M. A.	The Maximum Independent Set Problem and its Counting Variant
5.	COE12D001	Mohamed Asan Basiri M.	08/07/2016	Dr. Noor Mahammad S.	High Performance VLSI Architectures for Discrete Transformations
6.	EDM12D001	Abdul Majeed K. K.	08/05/2017	Dr. Binsu J. Kailath	Composite PFD based Low Power Low Noise Fast Locking PLL with Dynamic Loop Bandwidth

Sl. No.	Roll No.	Scholar	Date of Défense	Supervisor	Title of the Thesis
7.	EDM13D001	Phani Kumar K. V.	13/07/2017	Dr. Karthikeyan S. S.	Design, Analysis, and Implementation of RF/Microwave Planar Passive Deives for Wireless Applications
8.	MDM12D001	Senthil Kumar R.	13/07/2017	Dr. Jayavel S.	Numerical and Experimental Study of Heat Transfer Enhancement in Electronic Systems
9.	MAT11D001	Sandhya T. P.	27/07/2017	Dr. Shalu M. A., Dr. Vijayakumar S.	Graph Coloring and its Variants
10.	COE10D001	Kanjar De	01/08/2017	Dr. Masilamani V	Algorithms for assessing Image Quality without Reference
11.	EDM09D002	Papanasam E.	04/08/2017	Dr. Binsu J. Kailath	High-k/SiC MIS Capacitors-Fabrication, Characterization and Extraction of Gate Leakage Current Mechanisms
12.	MDM09D001	Usha S.	16/08/2017	Dr. Sreekumar M.	Investigations on the Effects of Surface Topography in the Actuation Performance of Stacked and Rolled Deap Actuator
13.	EDM10D001	Arun K.	27/11/2017	Dr. Selvajyothi K.	Variable Sampling Period Based Frequency Locked Loops for Single Phase Grid Synchronization
14.	MDM13D002	Deepakkumar R	05/04/2018	Dr. Jayavel S.	Computational Study of Vortex Shedding Control for Flow Past Circular Cylinder
15.	EDM13D002	Maheswaran P	05/07/2018	Dr. M. D. Selvaraj	Investigations on The Performance of Spatial Modulation Systems
16.	COE13D002	Ayesha S K	16/07/2018	Dr. V. Masilamani	Robust Multiplicative Watermarking Schemes for Digital Image Security
17.	COE14D001	Manikandan V M	27/07/2018	Dr. V. Masilamani	Data Hiding Methods for Digital Image Security

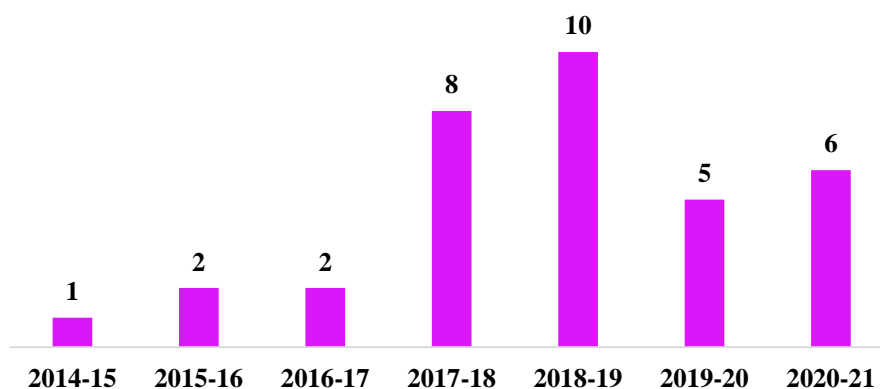
Sl. No.	Roll No.	Scholar	Date of Défense	Supervisor	Title of the Thesis
18.	COE14D002	Renjith P	03/08/2018	Dr. Sadagopan N	On Spanning Trees - Constraints, Variants and Generalizations (Theory, Algorithm and Dichotomy)
19.	MDM13D001	S Santhosh	09/10/2018	Dr. Shahul Hameed Khan	Design and Optimization of Closed Loop Supply Chain
20.	EDM15D003	Rusan Kumar Barik	17/10/2018	Dr. Karthikeyan S. S.	Design and Implementation of Wideband and Multi-Band RF/Microwave Components
21.	COE13D003	Oswald C	14/11/2018	Dr. B. Sivaselvan	Efficient Algorithms for Text and Image Compression Based on Knowledge Engineering
22.	PHY12D001	Manimegalai K	25/03/2019	Dr. Tapas Sil	Dynamics of the anharmonic oscillators
23.	COE13D004	Shanmugakumar. M	29/03/2019	Dr. Noor Mahammad S.	On the Development of Novel High Performance Packet Classification Architectures
24.	MDM15D001	Sathish Kumar R	28/05/2019	Dr. Jayabal K	Micromechanical Modelling of Magnetostrictive Materials using Polygonal Finite Elements
25.	EDM14D002	Chandu D S	07/06/2019	Dr. Karthikeyan S. S.	Investigations and Implementations of Novel Methods in the Design of Circularly Polarized Printed Antennas
26.	EDM14D001	A Ananth	21/06/2019	Dr. M D Selvaraj	Error Analysis of Space Shift Keying Systems
27.	COE13D001	S Veeramani	04/07/2019	Dr. Noor Mahammad S.	Novel High Speed IP Look Up Techniques
28.	MAT12D001	Dhanalakshmi S	04/07/2019	Dr N Sadagopan	Subset Problems in Higher Chordality and $2K_2$ -Free Graphs – Structural and Algorithmic View

Sl. No.	Roll No.	Scholar	Date of Défense	Supervisor	Title of the Thesis
29.	MDM14D002	Srinivasan G	05/07/2019	Dr. B Raja	An investigation of heat and mass transfer characteristics of spin freezing and drying process
30.	MDM11D003	Mr C Gurunathan	04/12/2019	Prof R Gnanamoorthy Dr S Jayavel	Thermo-Tribological Characteristics Of Particle And Network Reinforced Polymer Composites
31.	MDM13D003	Mr Vinayaga Muruga Pandy N	16/12/2019	Dr Pandithevan P	Development of a minimally-invasive drilling methodology to control temperature and cutting force in femur reconstruction surgery: A methodology for better pullout strength of fixations in human cortical bone
32.	EDM14D004	Mr.Xavier Arockiaraj S	09/03/2020	Dr Priyanka Kokil	Criteria For Limit Cycle Free State-Space Digital Filters With External Disturbance
33.	PHY13D001	Mr. Ashish Kumar	09/05/2020	Dr. Naveen Kumar	Characterization Of Single-Fiber Mach-Zehnder Interferometer For Sensing Applications
34.	MDM11D001	Balaji K	24/07/2020	Dr. Shahul Hameed Khan	Kinematic Analysis of RS type parallel Robotic mechanisms- A Performance Index Based Approach

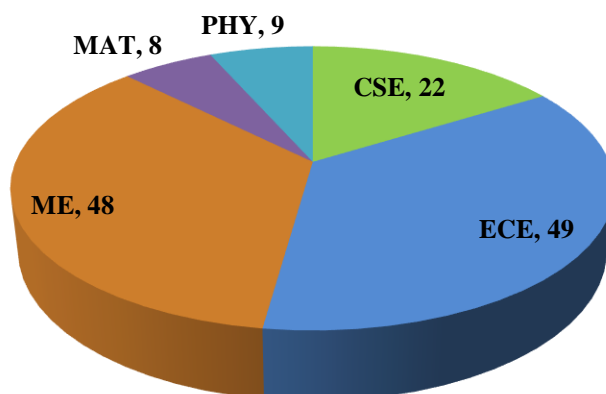
Ph.D Scholars-Thesis Defended (as on 31.03.2021)



Ph.d Scholars Passed Out



Ongoing PhD Department wise



Patents and Publications, 2020-21

Patents (Till Date):

1. Pankaj K. Sa, Ansuman Mohapatra, Banshidhar Majhi, "Systems and Methods for generating Synopsis of Multi-View Videos", Application No. 201731028957, 16-Aug-2017.
2. Banshidhar Majhi, Umarani Jayaraman, Avinash Ranganathan, Edwin Murari, Text Free Interface for Managing Contacts on Smart Mobile Phone, Application No. 2018 4100 4534, 07-Feb-2018.
3. Shahul Hamid Khan, IOT Enabled Hydraulic Controlled Multi-Directional Lifting & Dropping Dumper, Application No. 201841028867, 1 Aug. 2018.
4. M Sreekumar and Others, Robot Race Track, Application No.: 314718-001 Dtd.6 Feb 2019
5. Jayabal K. "A Stent Design with Varying Geometry and Thickness along the Circumferential Direction". Patent No: 202041008482.
6. Raguraman Munusamy. "Portable bottle holder and cap cutting device". Patent No: 325164 – 001. 28-Jan-2020.
7. Raguraman Munusamy. "Bottle cap opener and skirt cutter with four jaws". Patent No: 325164 – 002. 03-Feb-2020.
8. Raguraman Munusamy. "Round shaped bottle holder with two jaws". Patent No: 325337-001. 19-Feb-2020.
9. Raguraman Munusamy. "Bottle holder and cap cutting device". Patent No: 325337-002. 11-Feb-2020.
10. Raguraman Munusamy. "Bottle holder with four jaws". Patent No: 325337 – 003. 19-Feb-2020.
11. Shahul Hamid Khan. B. "Solar Powered Multi-terrain robot". Patent No: 321832 – 001.
12. Bingi, J., Anusha. P., and Sudhir Varadarajan., 2019. "Single line spectroscopy for milk fat and adulteration detection", 201941018939, TEMP/E-1/19883/2019-CHE.
13. Bingi, J., Bhavana., 2019. "Thermal to electric feedback cooling patch", 201941018940 TEMP/E-1/19855/2019-CHE.
14. Bingi, J., Pritam, P S., 2021. "Leguerre Gaussian & Hermit Gaussian mode converter". Patent No: 202141007641.

International Journals:

CSE

1. Joshi, P., Vedhanayagam, M. and Ramesh, R., 2021. "An Ensembled SVM Based Approach for Predicting Adverse Drug Reactions". *Current Bioinformatics*, 16(3), pp.422-432.
2. Kakarla, J., Isunuri, B.V., Doppalapudi, K.S. and Bylapudi, K.S.R., 2021. "Three class classification of brain magnetic resonance images using average-pooling convolutional neural network". *International Journal of Imaging Systems and Technology*, <https://doi.org/10.1002/ima.22554>.
3. Kiruthika, S. and Masilamani, V., 2020. "Goal oriented image quality assessment", *IET Image processing*, (Accepted)
4. Kokkalla, S., Kakarla, J., Venkateswarlu, I.B. and Singh, M., 2021. "Three-class brain tumor classification using deep dense inception residual network". *Soft Computing*, pp.1-9.
5. Kumar, R.L., Kakarla, J., Isunuri, B.V. and Singh, M., 2021. "Multi-class brain tumor classification using residual network and global average pooling". *Multimedia Tools and Applications*, 80(9), pp.13429-13438.

6. Mantripragada, A.S., Teja, S.P., Katasani, R.R., Joshi, P., Masilamani, V. and Ramesh, R., 2021. "Prediction of adverse drug reactions using drug convolutional neural networks". *Journal of Bioinformatics and Computational Biology*, pp.2050046-2050046.
7. Oswald, C., Haritha, E., Akash Raja, A. and Sivaselvan, B., 2021. An efficient and novel data clustering and run length encoding approach to image compression. *Concurrency and Computation: Practice and Experience*, 33(10), p.e6185.
8. Singh, M., Bhoi, S.K. and Panda, S.K., 2021. "Geometric least square curve fitting method for localization of wireless sensor network". *Ad Hoc Networks*, 116, p.102456.

ECE

1. Arjunan, M.S., Saxena, N., Mondal, A., Dixit, T., Adarsh, K.N.V.D. and Manivannan, A., 2021. "High-Stability and Low-Noise Multilevel Switching in In₃SbTe₂ Material for Phase Change Photonic Memory Applications". *physica status solidi (RRL)–Rapid Research Letters*, 15(3), p.2000354.
2. Arora, A., Nayak, P.K., Dixit, T., Ganapathi, K.L., Krishnan, A. and Rao, M.S.R., 2020. "Stacking angle dependent multiple excitonic resonances in bilayer tungsten diselenide". *Nanophotonics*, 9(12), pp.3881-3887.
3. Arya, S.R., Patel, M.M., Alam, S.J., Srikakolapu, J., Giri, A.K. and Babu, B.C., 2021. "Classical control algorithms for permanent magnet synchronous generator driven by diesel engine for power quality". *International Journal of Circuit Theory and Applications*, 49(3), pp.576-601.
4. Arya, S.R., Rakesh, M., Talada Appala Naidu. and Chitti Babu, B. 2021 "Adaptive Observer for Dynamic Voltage Restorer with Optimized Proportional Integral Gains", *IEEE Chinese Journal of Electrical Engineering*. 10.1109/JESTIE.2021.3051553
5. Azhagesan, D., Periyasamy, M., Parvathy, S.M., Sridharan, M. and Baladhandautham, C.B., 2021. "Predictive current control of FL-shunt active power filter for dynamic and heterogeneous load compensation". *Electrical Engineering*, pp.1-14.
6. Bhajana, V.V.S.K., Drabek, P., Jara, M., Popuri, M., Iqbal, A. and ChittiBabu B., 2021. "Investigation of a bidirectional DC/DC converter with zero-voltage switching operation for battery interfaces". *IET Power Electronics*, 14(3), pp.614-625.
7. Burra, S. and Kar, A., 2021. "Performance analysis of an improved split functional link adaptive filtering algorithm for nonlinear AEC". *Applied Acoustics*, 176, p.107863.
8. Chandra, M., Goel, P., Anand, A. and Kar, A., 2021. "Design and analysis of improved high-speed adaptive filter architectures for ECG signal denoising". *Biomedical Signal Processing and Control*, 63, p.102221.
9. Dimri, C., Nikhil, G.P., Mohanty, P.K., Pradhan, K.P., Agarwal, R. and Routray, S., 2021. "Investigating single event transients of advanced fin-based devices for inclusion in ICs". *AEU-International Journal of Electronics and Communications*, 134, p.153675.
10. Dinesh, G. and Kailath, B.J., 2021. "Graph based Circuit Simulator for Switched Capacitor Circuits". *IEEE Design & Test*. 10.1109/MDAT.2021.3053225.
11. Dixit, T., Tripathi, A., Ganapathi, K.L., Rao, M.R. and Singh, V., 2020. "Long-lasting persistent photoconductivity in Au/CuO thin films for optical memory". *IEEE Photonics Technology Letters*, 32(6), pp.329-332.
12. Dixit, T., Tripathi, A., Solanke, S.V., Ganapathi, K.L., Rao, M.R. and Singh, V., 2020. "Ultra-Wide Bandgap Copper Oxide: High Performance Solar-Blind Photo-detection". *IEEE Electron Device Letters*, 41(12), pp.1790-1793.

13. Duraisamy, T., Barik, R.K., Cheng, Q.S. and Kamakshy, S., 2020. Miniaturized SIW filter using D-shaped resonators with wide out-of-band rejection for 5G applications, *Journal of Electromagnetic Waves and Applications*, 34 (18), 2397-2409.
14. Dudala, S.R., Sau, A., Appina, B., Srivastava, M.S.A. and Mohapatra, A., 2020. "A Preliminary Prediction of Covid-19 Cases in India by April 2020 Using Exponential Mathematical Modelling". *National Journal of Research in Community Medicine*, 9(1), pp.001-005.
15. Nikhil, G.P, Chinmay Dimir, P.K. Mohanty, K.P. Pradhan, G.P. Mishra, S. Routray., 2020. "Geomerically-Engineered SMG FinFET Structures at 10nm: RF/DC Performance and Effect of Temperature Analysis", *Silicon*, Springer. DOI: 10.1007/s12633-020-00608-w.
16. Giri, A.K., Arya, S.R., Maurya, R. and Chittibabu, B., 2020. "Control of VSC for enhancement of power quality in off-grid distributed power generation". *IET Renewable Power Generation*, 14(5), pp.771-778.
17. Jalan, S.K., Babu, B.C., Patel, N., Kumar, A. and Gupta, N., 2021. "A novel active current coefficient extraction-based control for grid-tied solar photovoltaic system". *IET Power Electronics*. doi.org/10.1049/pel2.12108
18. Jalan, S.K., Babu, B.C., Sridharan, K. and Gupta, N., 2021. "An improved control strategy of grid-tied solar photovoltaic system using active current detection method". *International Journal of Circuit Theory and Applications*, 49(3), pp.602-615.
19. Jogi, S., Parthipan, C.G. and Kokil, P., 2020. "A Passivity Based Approach for Digital Filters Subjected to External Disturbance and Nonlinearities". *IFAC-Papers Online*, 53(1), pp.428-434.
20. Kar, A., Anand, A. and Swamy, M.N.S., 2020. "Automatic tap-length adjustment of adaptive filter for feedback attenuation in hearing aids". *Applied Acoustics*, 158, p.107043.
21. Kokil, P. and Parthipan, C.G., 2020. "Stability of digital filters subject to external interference and state-delay". *Transactions of the Institute of Measurement and Control*, 42(13), pp.2559-2568.
22. Kokil, P. and Pratap, T., 2021. "Additive white gaussian noise level estimation for natural images using linear scale-space features. *Circuits, Systems, and Signal Processing*, 40(1), pp.353-374.
23. Kokil, P. and Sudharson, S., 2020. "De-speckling of clinical ultrasound images using deep residual learning". *Computer Methods and Programs in Biomedicine*, 194, p.105477.
24. Kumar, A., Gupta, V., Patel, N., Gupta, N. and Babu, B.C., 2020. "Improved robust-mixed-norm-based controller for grid-tied PV systems under voltage disturbances". *IET Generation, Transmission & Distribution*, 14(13), pp.2610-2619.
25. Kumar, P.P. and Saxena, P., 2021. "A novel antipodal tapered slot antenna integrated with half mode substrate integrated waveguide-based bandpass filter for K and Ka band applications". *Microwave and optical technology letters*, 63(7), pp.1942-1949.
26. Kumar, S., Mukkapati, A.B.K., Krishnasamy, V., Kaur, R. and Babu, B.C., 2020. "Improved control strategy for Cuk converter assisted wind-driven SEIG for DC nanogrid". *IET Electric Power Applications*, 14(10), pp.1906-1917.
27. Lakshumanan, C. and Pradhan, K.P., 2021. "Memoryless non-linearity in B-Substitution doped and undoped graphene FETs: A comparative investigation". *IET Circuits, Devices & Systems*. doi.org/10.1049/cds2.12059.
28. Laxmi, N., Routray, S. and Pradhan, K.P., 2020. "Effect of strain-modulated multiple quantum wells on carrier dynamics and spectral sensitivity of III-nitride photosensitive devices". *IEEE Sensors Journal*, 20(10), pp.5204-5212.

29. Maheswaran, P. and Selvaraj, M.D., 2020. "Analysis of selection combining receiver performance for time successive SSK-M-ary modulation". *IEEE Wireless Communications Letters*, 9(9), pp.1581-1585.
30. Manikandan, S. and Kokil, P., 2020. "Stability Analysis of Load Frequency Control System with Constant Communication Delays". *IFAC-Papers OnLine*, 53(1), pp.338-343.
31. Manikandan, S. and Kokil, P., 2020. "Stability analysis of network-controlled DC position servo system with time-delay". *Automatika*, pp.1-9.
32. Manikandan, S. and Kokil, P., 2021. "Stability analysis of network-controlled generator excitation system with interval time-varying delays". *Automatika*, 62(1), pp.65-75.
33. Mellita, R.A., Chandu, D.S., Karthikeyan, S.S. and Damodharan, P., 2020. "A miniaturized wideband frequency selective surface with interconnected cell structure". *AEU-International Journal of Electronics and Communications*, 120, p.153196.
34. Nannam, H.C. and Banerjee, A., 2021. "Experimental investigation on the control strategy of split source inverter for grid-connected wind power generation system". *International Journal of Circuit Theory and Applications*. doi.org/10.1002/cta.3037.
35. Nannam, H.C., Babu, C. and Banerjee, A., 2020. "Control and analysis of a 3-level diode-clamped split source inverter in the applications of grid-tied photovoltaic systems". *International Transactions on Electrical Energy Systems*, 30(11), p.e12573.
36. Parthipan, C.G. and Kokil, P., 2021. "Stability of Digital Filters with State-Delay and External Interference. Circuits". *Systems, and Signal Processing*, pp.1-18.
37. Patel, N., Gupta, N. and Babu, B.C., 2020. "Photovoltaic system operation as DSTATCOM for power quality improvement employing active current control". *IET Generation, Transmission & Distribution*, 14(17), pp.3518-3529.
38. Patel, N., Gupta, N., Kumar, A. and Babu, B.C., 2020. "Pseudo affine projection assisted multitasking approach for power quality improvement in grid-interactive photovoltaic (PV) system". *IET Power Electronics*, 13(13), pp.2905-2916.
39. Patel, N., Kumar, A., Gupta, N., Ray, S. and Babu, B.C., 2020. "Optimised PI-4VPI current controller for three-phase grid-integrated photovoltaic inverter under grid voltage distortions". *IET Renewable Power Generation*, 14(5), pp.779-792.
40. Pratap, T. and Kokil, P., 2021. "Efficient network selection for computer-aided cataract diagnosis under noisy environment". *Computer Methods and Programs in Biomedicine*, 200, p.105927.
41. Priyanka, R., Chandrasekar, L., Shaik, R.R. and Pradhan, K.P., 2020. "Label Free DNA Detection Techniques Using Dielectric Modulated FET: Inversion or Tunneling?". *IEEE Sensors Journal*, 21(2), pp.2316-2323.
42. Rajalekshmi, T.R., Dixit, T., Rao, M.R. and Sethupathi, K., 2021. "Pair-Emission-Induced Near-Infrared Lasing from Ceramic Ga: LaCrO₃ Microcrystals at Room Temperature". *physica status solidi (RRL)–Rapid Research Letters*, 15(4), p.2000519.
43. Ram Babu, M., Bookya, Nagu., Chitti Babu, B., 2021. "Modified Grey Wolf Optimization for Global MPPT under Partial Shading Conditions in Photovoltaic System", *International Journal of Circuit Theory and Applications*, John-Wiley. doi.org/10.1002/cta.3018.
44. Routray, A., Mistry, K.D., Arya, S.R. and Chittibabu, B., 2021. "Power output evaluation of a wind-solar farm considering the influence parameters". *IET Renewable Power Generation*. doi.org/10.1049/rpg2.12018.
45. Routray, S., Pradhan, K.P. and Mishra, G.P., 2020. "Effect of Nanostructure on Carrier Transport Mechanism of III-Nitride and Kesterite Solar Cells: A Computational Analysis". *IEEE Journal of the Electron Devices Society*, 8, pp.1154-1161.

46. Sahoo, A., Miryala, M., Dixit, T., Klimkowicz, A., Francis, B., Murakami, M., Rao, M.S.R. and Krishnan, S., 2020. "Femtosecond pulse ablation assisted mg-zno nanoparticles for uv-only emission". *Nanomaterials*, 10(7), p.1326.
47. Sahoo, G.S., Routray, S., Pradhan, K.P. and Mishra, G.P., 2021. "Electrical, Optical, and Reliability Analysis of QD-Embedded Kesterite Solar Cell". *IEEE Transactions on Electron Devices*. doi: 10.1109/TED.2021.3076034.
48. Samal, A., Pradhan, K.P. and Mohapatra, S.K., 2020. "Improvising the Switching Ratio through Low-k/High-k Spacer and Dielectric Gate Stack in 3D FinFET-a Simulation Perspective". *Silicon*, pp.1-6.
49. Samal, A., Pradhan, K.P. and Mohapatra, S.K., 2021. "Extensive Study of Underlap Length Effect for 3-D SOI FinFET to Achieve High Switching Ratio and Low Power". *Silicon*, 13, pp.1059-1064.
50. Sankar, S., Kar, A., Burra, S., Swamy, M.N.S. and Mladenovic, V., 2020. "Nonlinear acoustic echo cancellation with kernelized adaptive filters". *Applied Acoustics*, 166, p.107329.
51. Sariki, A., Rao, K.V., Chandrasekar, L., Shaik, R.R. and Pradhan, K.P., 2021. "Is Accumulation or Inversion Mode Dielectric Modulated FET Better for Label-Free Biosensing". *A Comparative Investigation. AEU-International Journal of Electronics and Communications*, p.153791.
52. Saroha, A., Dixit, T., Ganapathi, K.L., Muralidhar, M., Murakami, M. and Rao, M.S.R., 2020. "Nanoscale Probing of Magnetic and Electrical Properties of YIG/Si (100) Thin Films Grown by Pulsed Laser Deposition". *IEEE Magnetics Letters*, 11, pp.1-5.
53. Satish Kumar Reddy, M. and Selvajothi, K., "Optimal Planning and Utilization of Existing Infrastructure with Electric Vehicle Charging Stations", *IET Generation, Transmission and Distribution*, Dec 2020, 1(2),1-13.
54. Shaik, R.R., Arun, G., Chandrasekar, L. and Pradhan, K.P., 2020. "A study of Workfunction variation in pocket doped FD-SOI technology towards temperature analysis". *Silicon*, pp.1-10.
55. Shankar, A., Krishnasamy, V. and Chitti Babu, B., 2020. "Smart LED lighting system with occupants' preference and daylight harvesting in office buildings". *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, pp.1-21.
56. Shruti, P., Praveen, Y.G., Vipin, C.P. and Babu, B.C., 2021. "Analytical tuning of 2-DOF smith predictor control scheme for DC-DC boost converter: A process control perspective". *International Journal of Circuit Theory and Applications*, 49(3), pp.641-655.
57. Silva, T.T., Igreja, F., Lara, P., Tarrataca, L., Kar, A. and Haddad, D.B., 2021. "On the Skewness of the LMS Adaptive Weights". *IEEE Transactions on Circuits and Systems II: Express Briefs*. doi: 10.1109/TCSII.2021.3068857.
58. Sivapatham, S., Kar, A. and Ramadoss, R., 2021. "Performance analysis of various training targets for improving speech quality and intelligibility". *Applied Acoustics*, 175, p.107817.
59. Sravani, L., Routray, S. and Pradhan, K.P., 2020. "Toward quantum efficiency enhancement of kesterite nanostructured absorber: A prospective of carrier quantization effect". *Applied Physics Letters*, 117(13), p.133901.
60. Sudharson, S. and Kokil, P., 2020. "An ensemble of deep neural networks for kidney ultrasound image classification". *Computer Methods and Programs in Biomedicine*, 197, p.105709.
61. Sudharson, S. and Kokil, P., 2021. "Computer-aided diagnosis system for the classification of multi-class kidney abnormalities in the noisy ultrasound images". *Computer Methods and Programs in Biomedicine*, 205, p.106071.
62. Sudharson, S., Pratap, T. and Kokil, P., 2021. "Noise level estimation for effective blind despeckling of medical ultrasound images". *Biomedical Signal Processing and Control*, 68, p.102744.

63. Tharani, D., Barik, R.K., Cheng, Q.S., Selvajyothi, K. and Karthikeyan, S.S., 2021. "Compact dual-band SIW filters loaded with double ring D-shaped resonators for sub-6 GHz applications," *Journal of Electromagnetic Waves and Applications*, 35 (7), 923-936.
64. Tripathi, A., Dixit, T., Agrawal, J. and Singh, V., 2020. "Bandgap engineering in CuO nanostructures: Dual-band, broadband, and UV-C photodetectors". *Applied Physics Letters*, 116(11), p.111102.
65. Vandana, B., Mohapatra, S.K., Das, J.K., Pradhan, K.P., Kundu, A. and Kaushik, B.K., 2021. "Memoryless nonlinearity in IT JL FinFET with spacer technology: Investigation towards reliability". *Microelectronics Reliability*, 119, p.114072.

ME

1. Adam, A.M., Ibrahim, E.M.M., Panbude, A., Jayabal, K., Veluswamy, P. and Diab, A.K., 2021. "Thermoelectric power properties of Ge doped PbTe alloys". *Journal of Alloys and Compounds*, 872, p.159630.
2. Deepakkumar, R. and Jayavel, S., 2021. "Effect of rotating control cylinder location on vortex shedding behind a main cylinder". *Fluid Dynamics Research*, 53(1), p.015503.
3. Desai, R. and Muthuswamy, S., 2021. "A forward, inverse kinematics and workspace analysis of 3RPS and 3RPS-R parallel manipulators." *Iranian Journal of Science and Technology, Transactions of Mechanical Engineering*, 45(1), pp.115-131.
4. Ethirajan, M., Kandasamy, J. and Kumaraguru, S., 2020. "Connecting Engineering Technology with Enterprise Systems for Sustainable Supply Chain Management", *Smart and Sustainable Manufacturing Systems* 4, no. 1 (2020): 33-48.
5. Gajarja, G., Lal, P., Raguraman, M., 2020. "Comparison of Mechanical and Flammability Properties of Benzoxazine and Epoxy Resin Based Carbon Fibre Composite Sandwich Structures," *International Journal of Composite Materials*, 10 (1), pp. 18-27.
6. Gowthaman, S. and Sekhar, D.R., 2021. "Enhancing the inter yarn friction properties of kevlar and glass fabrics through ZnO nanowire coating". *Journal of Composite Materials*, 55(9), pp.1255-1266.
7. Kumar, H.A., Kumaraguru, S., Paul, C.P. and Bindra, K.S., 2021. "Faster temperature prediction in the powder bed fusion process through the development of a surrogate model". *Optics & Laser Technology*, 141, p.107122.
8. Lal, P., Gajapathi, G., Munusamy, R., 2020. "Flammability of benzoxazine resin-based carbon fibre composite samples. *Revue des Composites et des Matériaux Avancés*," *Journal of Composite and Advanced Materials*, Vol. 30, No. 3-4, pp. 189-194.
9. Mathusuthanan, M., Narayanan, K.R. and Jayabal, K., 2020. "In-Plane Residual Stress Map for Solar PV Module: A Unified Approach Accounting the Manufacturing Process". *IEEE Journal of Photovoltaics*, 11(1), pp.150-157.
10. Muneeshwaran, M., Srinivasan, G., and Raja, B. and Wang, C.C., 2021. "Investigation of heat and mass transfer behaviour of mannitol during vial freeze-drying". *Journal of Thermal Analysis and Calorimetry*, pp. 1-12.
11. Orra, K., 2021. "Mathematical Modelling, Analysis of Novel Corona Disease, and Its Effect on the Human Being". *International Journal of Knowledge-Based Organizations (IJKBO)*, 11(2), pp.17-29.
12. Panneerselvam, N. and Muthuswamy, S., 2020. "Design And Analysis Of New Stent Patterns For Enhanced Performance". *Journal of Mechanics in Medicine and Biology*, 20(06), p.2050039.

13. Prasannavenkadesan, V. and Pandithevan, P., 2021. "Johnson–cook model combined with cowper–symonds model for bone cutting simulation with experimental validation". *Journal of mechanics in medicine and biology*, 21(02), p.2150010.
14. Priya, C.N., Ashok, S.D., Maji, B. and Kumaran, K.S., 2021. "Deep Learning Based Thermal Image Processing Approach for Detection of Buried Objects and Mines". *Engineering Journal*, 25(3), pp.61-67.
15. Rajalingam, A. and Chakraborty, S., 2020. "Effect of micro-structures in a microchannel heat sink–A comprehensive study". *International Journal of Heat and Mass Transfer*, 154, p.119617.
16. Rajalingam, A. and Chakraborty, S., 2021. "Effect of shape and arrangement of micro-structures in a microchannel heat sink on the thermo-hydraulic performance". *Applied Thermal Engineering*, 190, p.116755.
17. Ramachandran, S., Kumar, N. and Timmaraju, M.V., 2020. "Thermodynamic Analysis of Solar Low-Temperature Differential Stirling Engine Considering Imperfect Regeneration and Thermal Losses". *Journal of Solar Energy Engineering*, 142(5).
18. Ramachandran, S., Kumar, N. and Timmaraju, M.V., 2021. "Thermodynamic Investigation of an Irreversible Combined Stirling–Organic Rankine Cycle for Maximum Power Output Condition". *Journal of Engineering for Gas Turbines and Power*, 143(7), p.071016.
19. Ramarajan, J. and Jayavel, S., 2020. "Numerical study of the effect of geometry and operating parameters on the performance of Savonius vertical axis wind turbine". *Current Science* (00113891), 119(12).
20. Reddy, K.R.K., Gunasekaran, A., Kalpana, P., Sreedharan, V.R. and Kumar, S.A., 2021. "Developing a Blockchain Framework for the Automotive Supply Chain: A systematic Review". *Computers & Industrial Engineering*, p.107334.
21. Sathish Kumar, D., and Jayavel, S., 2021 "Microchannel with waviness at selective locations for liquid cooling of microelectromechanical devices". *Journal of Applied Fluid Mechanics* 14(3):935-948.
22. Singh, M., Kumar, A. and Khan, A.R., 2020. "Capillary as a liquid diode". *Physical Review Fluids*, 5(10), p.102101.
23. Srinivasan, G. and Raja, B., 2020. "Heat and mass transfer analysis on multiport mini channel shelf heat exchanger for freexe-drying application". *Sadhana*, 45(1), 1-14.
24. Thiagarajan, S., Munusamy, R., 2020. "Experimental and numerical study of composite sandwich panels for lightweight structural design," *International Journal of Crashworthiness*, <https://doi.org/10.1080/13588265.2020.1838178>.
25. Vivek Kumar Chouhan., Shahul Hamid Khan., Mostafa Hajiaghahi-Keshteli, and Saminathan., (2020). "Multi-Facility Based Improved Closed-Loop Supply Chain Network for Handling Uncertain Demands, " *Soft Computing*, 24, 10, pp. 7125-7147.

Basic Sciences and Humanities

1. Anusuya, T., Kumar, V. and Kumar, V., 2021. "Hydrophilic graphene quantum dots as turn-off fluorescent nanoprobe for toxic heavy metal ions detection in aqueous media". *Chemosphere*, p.131019.
2. Anusuya, T., Prakash, J., Pathak, D.K., Saxena, K., Kumar, R. and Kumar, V., 2021. "Porous graphene network from graphene oxide: Facile self-assembly and temperature dependent structural evolution". *Materials Today Communications*, 26, p.101930.
3. Ashish Kumar., Subhashree Ojha., Naveen Kumar., 2020. "Highly sensitive single-fiber MZI configuration for weight sensing," *Optics and Laser Technology*, 130, 10633
4. Chattopadhyay, J. and Muthukrishnan, S., 2021. On the simultaneous 3-divisibility of class numbers of triples of imaginary quadratic fields. *Acta Arithmetica*, 197, 105-110.
5. Misra, D. and Yadav, S.K., 2020. "Nb Implanted BaO as a Support for Gold Single Atoms". arXiv preprint arXiv:2009.14256.
6. Misra, D. and Yadav, S.K., 2021. "On the origin of precipitation of transition metals implanted in MgO". *The European Physical Journal B*, 94(4), pp.1-6.
7. Nandi, A.K., Shekhar, V., Mishra, N. and Mishra, D., 2021. "Alternating stationary iterative methods based on double splittings". *Computers & Mathematics with Applications*, 89, pp.87-98.
8. Ramachandran, S., Kumar, N., Mallina, V, T., 2020. "Thermodynamic Analysis of Solar Low-Temperature Differential Stirling Engine Considering Imperfect Regeneration and Thermal Losses," *ASME Journal of Solar Energy Engineering* 142 (5), 051012.
9. Siddharth Ramachandran., Naveen Kumar., Venkat Timmaraju Malina., 2021. "Thermodynamic Investigation of an Irreversible Combined Stirling-organic Rankine Cycle for Maximum Power Output Condition, *ASME Journal of Engineering for Gas and Turbines*, GTP-20-1397, 143(7), 071016-1
10. Shalu, M.A., Vijayakumar, S., Sandhya, T.P. and Mondal, J., 2021. Induced star partition of graphs. *Discrete Applied Mathematics*. doi.org/10.1016/j.dam.2021.04.015.
11. Subhashree Ojha., Ashish Kumar., Naveen Kumar., 2020. "Sensitivity Enhancement of Single-Fiber MachZehnder Interferometer by Sensitizing its Interference Length, *Applied Optics*, 59 (14), 4392-4397.
12. Subhashree Ojha., Ashish Kumar., Naveen Kumar., 2020. "Post-fabrication refractive index sensitivity enhancement technique for single-fiber Mach-Zehnder interferometer," *Optical Fiber Technology*, 54, 102118
13. Yadav PK, Reddy YA, Ajitha B, Reddy VR. 2020. "Oxygen partial pressure dependent UV photodetector performance of WO₃ sputtered thin films. *Journal of Alloys and Compounds*", 816:152565.
14. Yadav, P.K., Ajitha, B., Kumar Reddy, Y.A. and Minnam Reddy, V.R., 2021. "Enhanced Performance of WO₃ Photodetectors Through Hybrid Graphene-Layer Integration". *ACS Applied Electronic Materials*, 3 (5), 2056–2066.
15. Yadav, P.K., Ajitha, B., Reddy, Y.A.K. and Sreedhar, A., 2021. "Recent advances in development of nanostructured photodetectors from ultraviolet to infrared region: A review". *Chemosphere*, p.130473.
16. Yadav, P.K., Ajitha, B., Reddy, Y.A.K., Reddy, V.R.M., Reddeppa, M. and Kim, M.D., 2021. "Effect of sputter pressure on UV photodetector performance of WO₃ thin films". *Applied Surface Science*, 536, p.147947.

17. Zephania, C.S. and Sil, T., 2021. "A Generalized Accurate Approximate Solution to the Symmetric and Asymmetric Oscillators with Polynomial Restoring Forces". *Journal of Vibration Engineering & Technologies*, pp.1-18.

SIDI

1. Lakhera, S.K., Vijayarajan, V.S., Krishna, B.R., Veluswamy, P. and Neppolian, B., 2020. "Cobalt phosphate hydroxide loaded g-C₃N₄ photocatalysts and its hydrogen production activity". *International Journal of Hydrogen Energy*, 45(13), pp.7562-7573.
2. Manjula, M., Muthumari, M., Krishnaveni, S., Kuznetsov, D. and Veluswamy, P., 2021. "Influence of Ternary and Quaternary Inclusion on Bandgap Tuning of CaTe: Prediction of Potential Thermoelectric Materials". *Journal of Electronic Materials*, 50(4), pp.1759-1771.
3. Mohana Priya, S., Veluswami, V., Arjun, Sathesh., Geetha, Arunachalam., Ramamurthi, Kadaswamy., and Byung, Jin Cho., 2021. "Electrospun SnO₂ and SnO₂/ V₂O₅ composite nanofibers for thermoelectric power generator". *Journal of Sol-Gel Science and Technology* (Accepted).
4. Prabhin, V.S., Jeyasubramanian, K., Benitha, V.S., Veluswamy, P. and Cho, B.J., 2020. "Fabrication and evaluation of hybrid supercapacitor consisting of nano cobalt oxide and manganese oxide deposited electrochemically on nanoporous Au-Electrode". *Electrochimica Acta*, 330, p.135199.
5. Prema, D., Prakash, J., Vignesh, S., Veluswamy, P., Ramachandran, C., Samal, D.B., Oh, D.H., Sahabudeen, S. and Venkatasubbu, G.D., 2020. "Mechanism of inhibition of graphene oxide/zinc oxide nanocomposite against wound infection causing pathogens". *Applied Nanoscience*, 10(3), pp.827-849.
6. Sathiyamoorthy, S., Kumar, R., Neppolian, B., Samiappan, D., Singh, S.P., Roy, S., Dwivedi, N. and Veluswamy, P., 2021. "Comprehensive Study and Realizing an Enhanced Efficiency of the Thermoelectric Generator Along with Its Thermomechanical Properties". *Journal of Electronic Materials*, 50(4), pp.1726-1734.

Book Chapters

ME

1. Avinash Kumar. and Udweish Panda.,2020. "Microfluidics based devices and their role on point-of-care testing". *Biosensor Based Advanced Cancer Diagnostics*, (ISBN: 599105, Elsevier Publication, Amsterdam, The Netherlands).
2. Charan, K.C. and AVS, S.P., 2021. "Kernel Gradient Free Smoothed Particle Hydrodynamics for Transient Boundary Value Problems". In *Recent Advances in Computational Mechanics and Simulations* (pp. 519-526). Springer, Singapore.
3. Kumar, H.A. and Kumaraguru, S., 2020. "On Modeling the Thermal Behavior of Single and Quad Laser Melting of Powdered Nickel Alloy". In *Advances in Simulation, Product Design and Development* (pp. 299-311). Springer, Singapore.
4. Kumar, H.A., Elvis, P.F.R., Manoharan, M., Jayapal, J. and Kumaraguru, S., 2020. "Tailored Support Structures for Additive Manufacturing". In *Advances in Additive Manufacturing and Joining* (pp. 199-207). Springer, Singapore.
5. Rajkumar Reddy, K. and Kalpana, P.,2021. "Impact of COVID-19 on Global Supply Chains and the Role of Digitalisation_ A VUCA approach". *Managing supply chain risk and disruptions: Post COVID 19*, Springer publication. (Accepted)

6. Ramarajan, J. and Jayavel, S., 2021. "Modification in the Rotor of Savonius Turbine to Reduce Reverse Force on the Returning Blade". In Proceedings of the 7th International Conference on Advances in Energy Research (pp. 1103-1111). Springer, Singapore.
7. Singh, A., Sekhar, S.S., Jayavel, S. and Varadarajan, S., 2020. "Numerical Study on the Effect of Impeller Geometry on Pump Performance". In Advances in Applied Mechanical Engineering (pp. 233-242). Springer, Singapore.

ECE

1. Pradhan, K P., 2021. "An Introduction to Nanoscale CMOS Technology Transistor: A Future Perspective" in Taylor and Francis, (In-Press).
2. Routray, S and Pradhan, K P. 2020. "Theory of Nanostructured Kesterite Solar Cell" in Springer, (In-Press).

Conference Publications (International/National):

CSE

1. Dash, E., Faustina, J.M. and Sivaselvan, B., 2020, December. "Representative Primary Capsule in Capsule Network Architecture for Fast Convergence". *4th Conference on Information & Communication Technology (CICT)*. IEEE.
2. Santosh Kumar, Uppada., Dani Prakash, Esukapalli., and Sivaselvan, B., 2020, December. "MitrApp: An Intelligent Recommendation System For Counselling". *4th Conference on Information & Communication Technology (CICT)*. IEEE.
3. Venkateswarlu, I.B., Kakarla, J. and Prakash, S., 2020, December. "Face mask detection using MobileNet and Global Pooling Block". *4th Conference on Information & Communication Technology (CICT)*. IEEE.

ECE

1. Appina, B., 2020, July. "A 'Complete Blind'No-Reference Stereoscopic Image Quality Assessment Algorithm". International Conference on Signal Processing and Communications (SPCOM) (pp. 1-5). IEEE.
2. Arthi., Christopher, S. and Selvajyothi, K., 2020, December. "Performance Enhanced 6-bit Phase Shifter in 65-nm CMOS Technology ", Asia-Pacific Microwave Conference. IEEE
3. Bhargav, N C., Dixit, T., Pranavi, A N., and Pradhan, K P., 2020, November. "Modelling of Temperature Variation Effect on the Memristance", International Conference on Emerging Electronics (IEEE).
4. Chaitanya, B.S., Kumar, P. P., and Saxena, P., 2020, October. "Reduction of mutual coupling in dual band antenna array using novel metamaterial structure," 3rd International Conference on VLSI, Communication and Signal Processing (VCAS 2020), Allahabad.
5. Chandrasekar, L., Pradhan, K P., 2020, November. "Modeling the Electrostatics of 2-Terminal Boron or Nitrogen Substitution Doped Metal-Insulator-Graphene (MIG) Structure", IEEE International Conference on Emerging Electronics (ICEE), Delhi,
6. Chandrasekar, L. and Pradhan, K.P., 2020, April. "Carrier Density and Quantum Capacitance Model for Doped Graphene". In 2020 4th IEEE Electron Devices Technology & Manufacturing Conference (EDTM) (pp. 1-4). IEEE.

7. Dinesh, L., and Srijiith, K., 2020, October. "Simulation studies on Force Sensor using PDMS coated Fiber Bragg Grating for Robot-assisted surgery". 4th International Conference on Optical & Wireless Technologies (OWT 2020).
8. Pavan Sai, G. and Kailath, B.J., 2020. "Reusable Spiking Neural Network Architecture", Poster Presentation at 2020 IBM IEEE CAS/EDS - AI Compute Symposium, New York, USA. IEEE
9. Jalan, S.K., Babu, B.C., Sridharan, K. and Panda, G., 2021, March. "A Novel Phase Locked Loop based Control Strategy for a Three-phase Grid-tied Solar PV System". 3rd International Conference on Energy, Power and Environment: Towards Clean Energy Technologies (pp. 1-6). IEEE.
10. Kiran, V.S., Saxena, P. and Anveshkumar, N., 2020, December. "Design of a Circularly Polarized Textile Antenna for RF Energy Harvesting". IEEE 4th Conference on Information & Communication Technology (CICT) (pp. 1-5). IEEE.
11. Kumar, P.P. and Saxena, P., 2020, July. "High Gain Metamaterial Loaded Antipodal Tapered Slot Antenna for Millimeter Wave Applications". International Conference on Signal Processing and Communications (SPCOM) (pp. 1-5). IEEE.
12. Madhuvanathi Srivastav, R., Kailath, B.J., 2020, October. "Energy-Efficient Adaptive Exponential Integrate and Fire Neuron" Poster Presentation at 2020 IBM IEEE CAS/EDS - AI Compute Symposium, New York, USA. IEEE.
13. Manoharan, A., Muralidhar, G. and Kailath, B.J., 2020, June. "A Novel Method to Implement STDP Learning Rule in Verilog". In 2020 IEEE Region 10 Symposium (TENSYP). IEEE.
14. Mellita, R.A., Karthikeyan, S.S. and Damodharan, P., 2021, January. "Additively Manufactured Conformal All-dielectric Frequency Selective Surface". 50th European Microwave Conference (EuMC) (pp. 772-775). IEEE.
15. Mohanty, P K., Nikhil, G P V Y., Chinmay Dimri., Pradhan, K P and Routray, S., 2020, November. "Estimation of Inverter Characteristics with 10nm FinFET Architectures", IEEE International Conference on Emerging Electronics (ICEE), Delhi. IEEE.
16. Mondal, A., and Saxena, P., 2020. "Synthesis of thinned antenna arrays using salp swarm optimization techniques," 3rd International Conference on VLSI, Communication and Signal Processing (VCAS 2020), Allahabad.
17. Nikhil, G.P., Routray, S. and Pradhan, K.P., 2020, April. "Assessment of Analog/RF performances for 10 nm Tri-metal Gate FinFET". 4th IEEE Electron Devices Technology & Manufacturing Conference (EDTM) (pp. 1-4). IEEE.
18. Parthipan, C.G. and Kokil, P., 2020, July. "Limit-Cycle Free Realization of Digital Filters". In 2020 International Conference on Signal Processing and Communications (SPCOM) (pp. 1-5). IEEE.
19. Paul, S., Kumar, P. P. and Saxena, P., 2020, October. "A novel compact 360° azimuth scanning antenna array for L-band applications," 3rd International Conference on VLSI, Communication and Signal Processing (VCAS 2020), Allahabad.
20. Pavan, S.G. and Kailath, B.J., 2020, October. "Reusable Spiking Neural Network Architecture". 11th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON) (pp. 0614-0620). IEEE.
21. Pranavi, A.N., Dixit, T., Pradhan, K.P., 2020, November. "Towards the Development of Unified Models for Memristors: Charge-Flux Relationship", International Conference on Emerging Electronics (ICEE), Delhi. IEEE
22. Priya, T.V., Sivapatham, S. and Kar, A., 2020, December. "Parkinson's Disease Detection Using Multiple Speech Signals". 4th Conference on Information & Communication Technology (CICT) (pp. 1-5). IEEE.

23. Rameez, R S., Pradhan, K P., 2020, November. "Linearity Behavior of a Pocket Doped p-type Ground Plane FDSOI: Impact of Back Biasing", International Conference on Emerging Electronics (ICEE), Delhi. IEEE.
24. Reddy, M.S., Dixit, T. and Pradhan, K.P., 2021, April. "Steep Subthreshold Swing in Double Gate NCFET: A Simulation Study". IEEE Latin America Electron Devices Conference (LAEDC) (pp. 1-4). IEEE.
25. Roshan, A.N., Gokulapriyan, B., Siddarth, C. and Kokil, P., 2021, March. "Adaptive Traffic Control With TinyML. 6th International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET) (pp. 451-455). IEEE.
26. Routray, S., Pradhan, K.P. and Mishra, G.P., 2020, April. "Performance Enhancement of Double Quantum Well Solar Cell by Strain-Modulated Piezo-Phototronics Effect". In 2020 4th IEEE Electron Devices Technology & Manufacturing Conference (EDTM) (pp. 1-4). IEEE.
27. Sathiya Jothi., Kailath, B.J., 2020, October. "Bistable-Triplet STDP circuit without external memory for Integrating with Silicon Neurons", Poster Presentation at 2020 IBM IEEE CAS/EDS - AI Compute Symposium, New York, USA.
28. Satish Kumar Reddy, M. and Selvajothi, K., 2021. "Minimization of Electric Vehicle charging Stations influence on Unbalanced radial distribution system with Optimal Reconfiguration using Particle Swarm Optimization," Proc. of IEEE Conference on Sustainable Energy and Future Electric Transportation, SEFET, GRIET. IEEE
29. Satish Kumar Reddy, M. and Selvajothi, K., 2020, December. 'Mitigation on the Impact of Electric Vehicle Charging Stations in the Radial Distribution System', *4th Conference on Information & Communication Technology (CICT)*. IEEE.
30. Satish, M., Manasa, T., Selvajothi, K. and Raja, B., 2020, October. "Estimation of State of Charge and Terminal voltage of Li-ion Battery using Extended Kalman Filter", Proceedings of 6th IEEE International Energy Conference (ENERGYCON), Tunisia. IEEE.
31. Satyaraj, I. and Kailath, B.J., 2020, December. "A simple PSTDP circuit for Analog Implementation of Spiking Neural Networks". *4th Conference on Information & Communication Technology (CICT)*. IEEE.
32. Shankar, A., Vijayakumar, K., Babu, B.C. and Durusu, A., 2020, September. "Smart led lighting system for energy efficient industrial and commercial lvdc nanogrid powered buildings with BIPV". International Conference on Smart Energy Systems and Technologies (SEST) (pp. 1-6). IEEE.
33. Shashank Reddy, M., Dixit, T., Pradhan, K P., 2020, November. "DOUBLE GATE NCFET: A New Approach To Achieve Low subthreshold Swing", International Conference on Emerging Electronics (ICEE), Delhi. IEEE.
34. Shivangi, T.P., Rahimi, M., Gargiulo, G., Kailath, B.J. and Hamilton, T.J., 2020, December. "A Silicon Neuron-based Bio-Front-End for Ultra Low Power Bio-Monitoring at the Edge". In 2020 IEEE Symposium Series on Computational Intelligence (SSCI) (pp. 3043-3048). IEEE.
35. Shivaranjani, S., and Srijith, Kanakambaran., 2020, December. "Performance Analysis of Multichannel 4-QAM CWDM-VLC System", 6th IEEE international Women in Engineering (WIE) Conference on Electrical and Computer Engineering (IEEE WIECON-ECE 2020).
36. Shree, M., Reddy, M.J., Pradhan, K.P. and Dixit, T., 2021, April. "Development of Multi-Physics Modeling of Plasmonics in the UV Region Using Transition Metals". In 2021 IEEE Latin America Electron Devices Conference (LAEDC) (pp. 1-4). IEEE.
37. Sivagami, K., Prathap, G.V.T., Channegowda, J. and Damodharan, P., 2021, February. "Analysis of Hybrid Solenoid Coupler as Transmitter with Rectangular and Circular Coupler as Receiver for Wireless Power Transfer". 7th International Conference on Electrical Energy Systems (ICEES) (pp. 299-304). IEEE.

38. Sravani, L., Routray, S., Pradhan, K P.,2020, November. "CZTSe Kesterite Solar Cell: The Impact of Defects on Loss Mechanisms", International Conference on Emerging Electronics (ICEE), Delhi. IEEE

ME

1. Deiva Ganesh, A., and Kalpana, P.,2020, December. "Supply chain risk management: Impact of AI and challenges in managing disruptions during the current pandemic COVID-19" presented in SOM Doctoral Colloquium, Xavier Institute of Management, Jamshedpur.
2. Dinesh, K.S. and Gowthaman, S., 2021. "Short beam shear behaviour of ZnO nanowire reinforced glass/epoxy composites". *Materials Today: Proceedings*, 44, pp.821-826.
3. Gothandaraman, R., Jha, R. and Muthuswamy, S., 2020, December. "Reflectional and Rotational Symmetry Detection of CAD Models Based on Point Cloud Processing". *4th Conference on Information & Communication Technology (CICT)*. IEEE.
4. Jadupati, B. and Kalpana, P., 2021, April. "Forecasting and inventory management of spare parts in Aviation industry: An AI-based model" accepted for presentation in XXIV Annual International Conference of the Society of Operations Management, Xavier Institute of Management, Jamshedpur.
5. Jayapal, J., Kumaraguru, S., and Varadarajan, V., 2021. "Part Consolidation in Design for Additive Manufacturing: A Two-Level Approach Using Complexity Metrics Chakrabarti, Amaresh. *Design for Tomorrow—Volume 2*": *Proceedings of ICoRD 2021*. Springer Nature. pp 881-892.
6. Kalimuthu.T., and Kalpana.P., 2021, April. "Impact of COVID-19 Pandemic on Down Stream Logistics in Supply Chain: A Review" accepted for presentation in XXIV Annual International Conference of the Society of Operations Management, Xavier Institute of Management Jamshedpur.
7. Lokesh, K.S., and Kalpana, P., 2021, April. " Machine route optimization for agricultural/farming service: A Mixed integer programming approach" accepted for presentation in XXIV Annual International Conference of the Society of Operations Management, Xavier School of Management, Jamshedpur.
8. Manoharan, M., Shridhar, A.N., Vinod, V.Y. and Kumaraguru, S., 2020, December. A Novel Volume Decomposition Methodology for Multi-Robots Collaborative Additive Manufacturing. *4th Conference on Information & Communication Technology (CICT)*. IEEE.
9. Naidu, R.S. and Swaminathan, G., 2021. "Fabrication and characterization of dye sensitized solar cell with ZnO nanoflowers as photoelectrode". *Materials Today: Proceedings*, 42, pp.637-641.
10. Nelson, N.R., 2021. "Effective modeling of spiral wound gasket with graphite filler in gasketed flange joint subjected to bending loads". *Materials Today: Proceedings*, 44, pp.2199-2204.
11. Patel, Z.B. and Muthuswamy, S., 2020. "A Machine Learning Scheme for Tool Wear Monitoring and Replacement in IoT-Enabled Smart Manufacturing". In *Innovative Product Design and Intelligent Manufacturing Systems* (pp. 439-447). Springer, Singapore.
12. Prasannavenkadesan, V., and Pandithevan, P., 2021, January. "An Experimental Investigation On Bovine Cortical Bone Using Cowper-Symonds Model". *Proc. International Conference on Futuristic Technologies*.

13. Prasannavenkadesan, V., and Pandithevan, P., 2020, September. "An experimental study to compare the stress predictability of the J-C model for bovine bone", Proc. 1st Online International Conference on Recent Advances in Computational and Experimental Mechanics.
14. Sathish Kumar, R., Poonam Kumari., and Jayabal, K., 2021, March. "A Constitutive Model for Terfenol-D Based on Microscale Events", 7th Asian Conference on Mechanics of Functional Materials and Structures, Japan.
15. Sudhanshu Gaurav, and Kalpana, P., 2021, April. "Optimization of health care services in post pandemic Era: A meta heuristic Approach", accepted for presentation in XXIV Annual International Conference of the Society of Operations Management, Xavier Institute of Management, Jamshedpur.
16. Veeramani, S. and Muthuswamy, S., 2020, December. "Reinforcement Learning based Path Planning of the Mobile Agents with Constrained Locomotion for the Material Handling Applications". In 2020 IEEE 4th Conference on Information & Communication Technology (CICT) (pp. 1-5). IEEE.
17. Warghat, K.V., Kumar, D.S. and Jayavel, S., 2021, January. "CFD Analysis on Heat Transfer Enhancement in a Pipe in Pipe Heat Exchanger with Tangential Injection". In IOP Conference Series: Materials Science and Engineering (Vol. 1013, No. 1, p. 012028). IOP Publishing.

Basic Sciences and Humanities

1. Ajitha, B., Karthik Yadav, P.V., Ashok Kumar Reddy, Y., Chi Won Ahn., 2021 February, "Silver nanoparticle embedded nanofibers for catalytic application", International Conference on Nanoscience and Nanotechnology (ICONN 2021), SRM IST, Chennai.
2. Aravind, C, B., Ramachandran, S., Kumar, N., 2020, January. Numerical Realization of Thermodynamic Low Delta-T Stirling Engine Cycle by Runge-Kutta (RK4) Method, International Conference on Numerical Heat Transfer and Fluid Flow (NHTFF-2020) At: NIT Warangal, India.
3. Anusuya, T., Veeresh Kumar., Renu Pasricha., and Vivek Kumar., 2021, February. "Graphene quantum dots based optical nanosensor for detection of heavy metal ions", 6th International Conference on Nanoscience and Nanotechnology (ICONN 2021), held at SRM Institute of Science and Technology, India.
4. Anusuya, T., Venkatesan, K., Rajesh Kumar., and Vivek Kumar., 2021, February. "Evolution of electrical conductance of low temperature reduced graphene oxide thin film", 6th International Conference on Nanoscience and Nanotechnology (ICONN 2021), held at SRM Institute of Science and Technology, India.
5. Barman, M. and Mishra, N., 2020, December. "A time-delay SEAIR model for COVID-19 spread". In 2020 IEEE 4th Conference on Information & Communication Technology (CICT) (pp. 1-6). IEEE.
6. Hema, D., Ajitha, B., Ashok Kumar Reddy, Y., Chi Won Ahn, 2021, February, "Seed-mediated growth of gold nanorods for catalytic activity", International Conference on Nanoscience and Nanotechnology (ICONN 2021), SRM IST, Chennai.
7. Karthik Yadav, P.V., Ajitha, B., Annapureddy, V., Ashok Kumar Reddy Y. 2021, February. "Improved UV photodetector performance of NiO films by substitutional incorporation of Li".

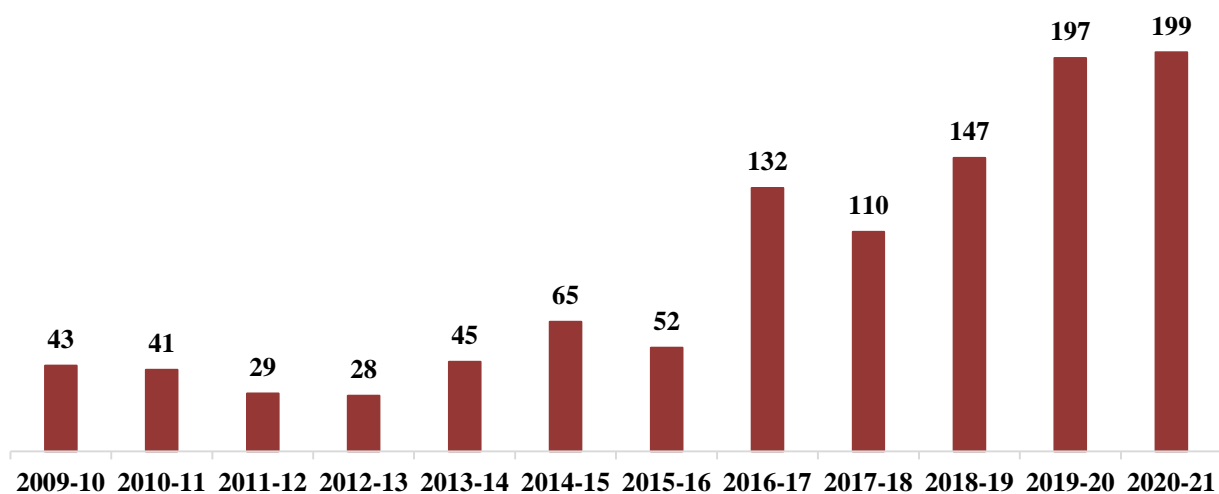
International Conference on Nanoscience and Nanotechnology (ICONN 2021), SRM IST, Chennai.

8. Misra, D., 2020, December. "Stability of transition metal dopants implanted in rock-salt oxides". Conference on Processing and Characterization of Materials (CPCM-2020), Department of Metallurgical and Materials Engineering, National Institute of Technology Rourkela, India.
9. Srinivas, K., Subramani, M., 2020. A survey on Euclidean number fields and non-Wieferich primes, *Class Groups of Number Fields and Related Topics*. Springer Verlag, Singapore.
10. Srinivas, K., Subramani, M., On admissible set of primes in real quadratic fields, *Modular Forms and Related Topics in Number Theory*. ICNT 2018. Springer Proceedings in Mathematics & Statistics, vol 340. Springer, Singapore.
11. Subhashree, Ojha., Ashish Kumar., Naveen Kumar., 2020, December. "Improvement in Sensitivity of Single-Fiber MZI by Exploiting Non-Reciprocal Phase Shift in Fiber Loop Mirror," *4th Conference on Information & Communication Technology (CICT)*. IEEE.

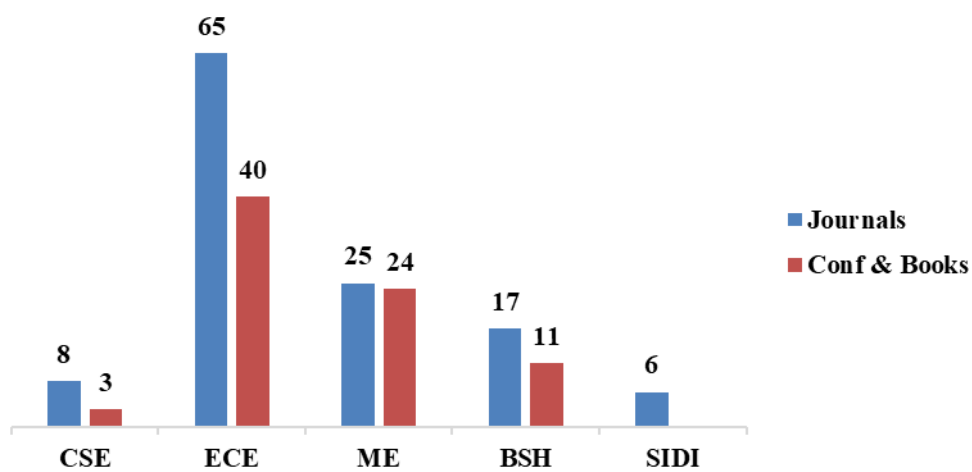
News Articles:

1. 13 Apr 2020: Dr Sudhir Varadarajan, "Can COVID spur Education 4.0" The Hindu (Education Plus), <https://www.thehindu.com/education/can-covid-spur-education-40/article31325877>. ece 4/
2. 04 Jul 2020: Dr Sudhir Varadarajan, "Lessons from a pandemic" The Hindu (Education Plus), <https://www.thehindu.com/education/lessons-from-a-pandemic/article31989151>. ece
3. 25 Mar 2021: Dr Sudhir Varadarajan, "Design-centric education: Imperative for the Post COVID world and Atmanirbhar Bharat", *The Higher Education Review*, <https://www.thehighereducationreview.com/opinion/in-my-view/designcentric-education-imperative-for-the-post-covid-world-and-atmanirbhar-bharat-fid-464.html>

Total Publications



Department wise Publications



Faculty Accomplishments

Awards:

1. Dr. Chitti Babu is selected as an "Early Career Advisory Board Member of Control Engineering Practice" (I.F:3.2, Q1), Elsevier, March 2021.
2. Dr. Chitti Babu is a Recipient of "IEEE MAS Best Researcher Award 2020" sponsored by IEEE Madras Section, Tamilnadu, Feb 2021.
3. Dr. Pandiyarasan Veluswamy, Recognized Reviewer award, Journal of Drug Delivery Science and Technology.
4. Dr. Pandiyarasan Veluswamy, Recognized Reviewer award, IEEE Journal of Photovoltaics.
5. Dr. Pandiyarasan Veluswamy, Jurie, Smart India Hackathon, MoE (formerly known as MHRD), India.
6. Dr. Pandiyarasan Veluswamy, Recognized Reviewer award, Journal of Renewable Energy.
7. Dr. Pandiyarasan Veluswamy, Best Master's Thesis Project award, IIITDM, India.
8. Dr. Pandiyarasan Veluswamy, Winner - IEEE Xplore Quiz, IIITDM, India.
9. Dr. Pandiyarasan Veluswamy, Innovative Teacher Award, IBAE 2020, GISR Foundation, India.
10. Dr. Pandiyarasan Veluswamy, Appreciation award (bridging academic and industry), Texas Instrument Embedded system design using MCU, AICTE, India.
11. Dr. Pandiyarasan Veluswamy, Two Best Poster Presentation Award, 6th International Conference on Nanoscience and Nanotechnology, SRM Institute of Science and Technology, Chennai, India.
12. Dr. Pandiyarasan Veluswamy, Best Poster Presentation, Dr. Paarivendhar Research Colloquium (DRPC) 2021, SRM Institute of Science and Technology, Chennai, India.
13. Dr. K P Pradhan, Listed in "Golden List of Reviewers for 2020" IEEE Transactions on Electron Devices.
14. Dr. K P Pradhan, Received award in recognition of publication in IEEE Transactions / IEEE Journals for the year 2020 from IEEE Madras Section.
15. Dr. K P Pradhan, Elevated to IEEE Senior Member on 24 Feb, 2021.
16. Dr. Tejendra Dixit, Article selected for Cover page and featured article in IEEE Electron Device Letters
17. Dr. Tejendra Dixit, Article selected for the cover page for Physica Status Solidi RRL.
18. Dr. Debolina Misra, Best Poster Presentation award, EESTER-2020, SRM Institute of Science and Technology, Chennai, India.

Recognitions:

1. Dr. Chitti Babu, Associate Editor, IET Renewable Power Generation (I.F: 3.9).
2. Dr. Chitti Babu, Associate Editor, IET Power Electronics (I.F: 2.7).
3. Dr. Chitti Babu, Associate Editor, IET Energy Systems Integration.
4. Dr. Chitti Babu, Early career Advisory Board Member, Control Engineering Practice (I.F:3.2, Elsevier).
5. Dr. Chitti Babu, Associate Editor, Electrical Engineering, Springer, (I.F: 1.2)
6. Dr. Chitti Babu, Editor, Intr. Trans. on Electrical Energy Systems, John-Wiley (I.F:1.7).
7. Dr. Chitti Babu, Editorial Board Member, Energy & Environment, (I.F: 1.78).
8. Dr. Chitti Babu, Editorial Advisory Member, Energy Sources (Part-A), Taylor & Francis, (I.F: 1.2).
9. Dr. Chitti Babu, Associate Editor, AUTOMATIKA, Taylor & Francis, (I.F: 0.76),
10. Dr. Chitti Babu, Lead Guest Editor, Special Issue on Design, Control and Application of Energy Storage in Modern Power Systems, Electrical Engineering, Springer, (I.F: 1.2), Dec 2020.
11. Dr. Chitti Babu, Lead Editor, Special Issue on Control & Power Quality in RES, Intr. Trans. On Elect. Energy Systems, John-Wiley, (I.F: 1.7), Oct 2020.
12. Dr. Chitti Babu, Lead Guest Editor, Special Issue on Renewable Energy Systems, Renewable Energy Focus, Elsevier (Scopus), June 2020.
13. Dr. Jayabal K, Acted as Board of Studies member for M.Tech program at Sports University, Chennai, Tamil Nadu.
14. Dr. Jayabal K, Acted as Board of studies member for UG and PG Mechanical Engineering Program at few Engineering Colleges affiliated to Anna University.
15. Dr. Kalpana P, Judge for Vishleshan, the Analytics Event of Nisadya'20, DoMS, NIT Trichy, (December 2020).
16. Dr. Kalpana P, External Examiner for MBA Project viva voce exam at DoMS, NIT Trichy, (November 2020).
17. Dr. Kalpana P, External member of the admission committee of PhD Program at Symbiosis university (August 2020).
18. Dr. Kalpana P, External Examiner for the Phd Seminar proposal at Amrita School of business (July 2020).
19. Dr. Munesh singh, Conference technical chair, ICADCML 2021, Siksha 'O' Anusandhan.
20. Dr. Munesh singh, Conference technical chair, CICT 2020, IIITDM Kancheepuram.
21. Dr. K P Pradhan, Co-Chaired a session in 2021 Springer International Conference on Micro/Nanoelectronics Devices, Circuits, and Systems (MNDCS-2021) in Track 6 on 30/01/2021.
22. Dr. K P Pradhan, Chaired a Session in 4th International Conference on Information and Communication Technology (CICT), 2020.
23. Dr. K P Pradhan, Organizing Committee Member of 4th International Conference on Information and Communication Technology (CICT), 2020.

24. Dr. K P Pradhan, TPC member of "Modeling and Simulation Group" in 4th IEEE Electron Devices and Technology and Manufacturing (EDTM) 2020.
25. Dr. Prerna Saxena, Track Chair and Session chair, Next Generation Communication Systems Track, 4th Conference on Information and Communication Technology (CICT 2020).
26. Dr. Vivek kumar, Session Chair, 4th IEEE Conference on Information and Communication Technology held at IIITDM Kancheepuram, Chennai during December 3-5, 2020.
27. Dr. B Sivaselvan, Board of Studies Member, Sona College of Technology Salem & Kumaraguru College of Technology Coimbatore.
28. Dr. Avinash Kumar, External DC member and expert for Mr Nagaraj (a Ph.D. students at SRM, Chennai).
29. Dr. Avinash Kumar, External examiner for M.Tech.-Solar for 2019 batch students at SRM, Chennai.
30. Dr. Avinash Kumar, Reviewer in ASME Journal of Solar Energy Engineering, Journal of Engineering Applications of Computational Fluid Mechanics, ASME Journal of Heat Transfer, Journal of Physics of Fluids, and many more.
31. Dr. M Sreekumar, PhD thesis examiner, Dept of Mechanical Engineering, MIT, Anna University, 8 Jan 2021.
32. Dr. M Sreekumar, PhD thesis examiner, Dept of Mechanical Engineering, Sethu Institute of Technology, Virudhunagar, Anna University, 30 Sep 2020.
33. Dr. M Sreekumar, Member-Design of Curriculum and Syllabus, Diploma in Robotics and Automation, TS Srinivasan Centre for Polytechnic College and Advanced Training, Directorate of Technical Education, Chennai-25
34. Dr. M Sreekumar, Dy. Centre In-charge, NEET (UG) 2020 Examination at IIITDM Kancheepuram, 13 Sep 2020
35. Dr. M Sreekumar, Participated in Online Program; National Education Policy 2020-Knowledge Series Transforming Higher Education: Structure and Processes, Organized by ASSOCHAM INDIA, 27 Aug. 2020

Guest Lectures/Invited Talk Delivered:

Guest Talks Organized

Sl. No	Topic	Guest	Date
1	Power of Positivity	Mrs. Meenakshi Gupta Founder, The White Lily	05, Aug. 2020
2	Research Talk Series	Prof Ram Bias Pacholi IIT Indore	26, Aug. 2020
6	Multiview 3 D content acquisition, Reconstruction, immersive visualization	Mr. Roopak R Tamboli IIT Hyderabad	02, Sep. 2020
4	Solar-blind and Multi-band Photodetectors	Mr. Akash Tripathi IIT Indore	30, Sep. 2020
5	Medical Image Processing in Ophthalmology	Dr. Renoh C Johnson R& D Engineer, Dunedin, Otago, Newzealand	11, Nov. 2020
6	Twistronics ; A recent Avenue in vander walls Heterostructures	Dr. Pramoda K Nayak DST Ramanujan Fellow, Adunct Faculty, Dept of Physics, IIT Madras	20, Jan. 2021
7	The Exciting World at the Small Scale	Prof. B. S. Murthy, IIT Hyderabad	27, Feb. 2021

Talks delivered outside the Institute

Sl. No	Topic	Date	Venue	Faculty
1	FDP on IoT and Machine Learning [3 Series]	02-06, Mar. 2021, 05-10, Apr. 2021, 03-08, May 2021	Indeaprashta College of Engineering	Dr. Asutosh Kar
2	FDP on IoT and Machine Learning [3 Series]	26-30, Jan. 2021	Indeaprashta College of Engineering	
3	Optimization in Communication and Signal Processing with Machine Learning	28, Sep. – 03, Oct. 2020, 12-17, Oct. 2020, 19-24, Oct. 2020	Velammal College of Engineering, Chennai	
4	Emerging Trends in Speech & Biomedical Signal Processing	23-27, Sep. 2020	NIT Surathkal	
5	Induction/Refresher Programme on Feature Analysis Using AI/ML”	16-21, Nov. 2020	SKCET Coimbatore	
6	FDP on Medical Signal and Image Analysis	16-20, Jun. 2020	St. Joseph College of Engineering	
7	Variability Resilient/Robust Circuit Design in Conventional & Non-Conventional MOS Technologies for Energy Efficient Computation	24-28, May 2021	Indra Ganesan College of Engineering, Tiruchirapalli	Dr. Bhupendra Singh Reniwal

8	Low Power Embedded Memory Circuit Design	09, Dec. 2020	Vellore Institute of Technology (VIT)	
9	AI Hardware Accelerators for Energy Efficient Computation: A Memory Design Perspectives	07-12, Dec. 2020	S. G. S. Institute of Technology & Science (SGSITS), Indore.	
10	Emerging Paradigm for Energy Efficient Computation, Challenges & Opportunity: in AI Space	23-28, Nov. 2020	S. G. S. Institute of Technology & Science (SGSITS), Indore.	
11	Keynote speech in the International Conference on Smart Technologies in Electric Vehicles and Power Grid (STEP-2021)	27-29, Jan. 2021	SVCE Sriperumpudur, Chennai	
12	Keynote speech in the 2020 18th IEEE Student Conference on Research and Development (IEEE SCORED 2020) ,	27-28, Sep. 2020	Universiti Tun Hussein Onn Malaysia, Malaysia	Dr. B. Chitti Babu
13	Keynote speech in the International Conference on Advances in Renewable and Sustainable Energy Systems 2020 (ICARSES 2020)	3-5, Dec. 2020.	SRM Institute of Science and Technology, Chennai	
14	Keynote speech in the National Conference on Information and Communication Technologies, NCICT 2020	12, Jun. 2020	SSN College of Engineering, Kalavakkam	
15	Keynote speech in the AICTE sponsored 6-Days online STTP-III on “Electric Vehicles: An Opportunity for India”,	7-12, Sep. 2020	RMK College of Engineering and Technology, Chennai	Dr. P. Damodharan
16	5-day FDP on “Power Converters for Transportation Electrification Applications”	27-31, Jul. 2020	Ramaiah Institute of Technology, Bengaluru	
17	Keynote speech in the Workshop on “Electric Drives for Industrial and Electric Vehicle Applications”	16, Oct. 2020	The National Institute of Engineering, Mysuru	
18	Finite Element Application in Aerospace Engineering	23, May 2020	Bharath Institute of Higher Education and Research	
19	Purely the fundamentals of mechanical Engineering	5, Jun. 2020	Chennai Institute of Technology, Chennai	Dr. Jayabal K
20	Smart Materials for Intelligent future: Industrial and defense perspective	22, Aug. 2020	KSR College of Technology, Erode	
21	Application of Advanced Finite Element Methods for Piezoelectric responses	19, Sep. 2020	KSR College of Technology, Erode	

22	Role of Electronics in Mechanical Industries	5, Oct. 2020	G.Venkataswamy Naidu College, Kovilpatti,	Dr. Jayabal K
23	Magetostriuctive materials – Modeling and applications	15, Oct. 2020	KSR College of Technology, Erode	
24	Modeling of smart materials - Piezoelectrics	22, Oct. 2020	NGP Institute of Technology, Coimbatore	
25	Research Methodology	5, Dec. 2020	Indian Institute of Information Technology, Nagpur	
26	Fundamentals of Finite element analysis and its applications in Engineering	23, Jan. 2021	Panimalar Institute of Technology, Chennai	
27	Challenges and Opportunities for Mechanical Engineers	27, Mar. 2021	Kongunadu College of Engineering and Technology, Trichy	
28	Deep Learning and its applications	08, Oct. 2020	KL University, Vijayawada	
29	Applications of Deep Learning	10, Sep. 2020	PSG College of Technology, Coimbatore	
30	Applications of operations research in Service Industries	May 2020	Satyabhama university	Dr. A. Kalpana
31	Internet of Things and Blockchain: The transforming Technologies	Aug. 2020	National design research forum	
32	Introduction concepts and fundamentals of AI and ML	Oct. 2020	National design research forum	
33	Optimization techniques and its applications	Sep. 2020	Little Flower college	
34	Role of IOT and Blockchain in Industry 4.0	Jan. 2021	Chennai Institute of Technology	
35	ML Overview	02, Nov. 2020	SRM University, AP	Dr. Masilamani. V
36	Cognitive Computing in Machine Learning	09, Dec. 2020	Hindustan Institute of Science and Technology, Chennai	
37	Machine Learning and its Application to Image Quality Assessment	05, Jan. 2021	-	
38	Recent trends in Cloud Computing	23, Apr. 2021	-	
39	Internet of things, Principles, paradigms and applications	01–05, Feb. 2021	DRIEMS Autonomous Engineering college	Dr. Munesh Singh

40	Smart Perspectives of IoT in Green Technology	21- 26, Dec. 2020	Knowledge Institute of Technology, Salem	Dr. Munesh Singh
41	Offensive and Defensive Aspects of Cyber Security	15, Dec. 2020	GIFT, Bhubaneswar	
42	Cyber Physical System on Open Source Platform	22, Oct. 2020	Parala Maharaja Engineering College	
43	Research Methodologies and Statistical Data Analysis	16 -28, Nov. 2020	SRM IST, Chennai	
44	Latest Technological Developments in Electronics and Communication Engineering	5 – 17, Sep. 2020	Bharathi Institute of Technology (Autonomous), Hyderabad	
45	Cyber Physical System on Open-Source Platform	22, Oct. 2020	KL University	
46	Introduction to Artificial Intelligence and Recent Developments	02–06, Nov. 2020	SRM IST, Chennai	
47	Emerging Technologies: Theory and Applications (ETTA)	5–10, Sep. 2020	NIT Meghalaya	
48	One Week Online Workshop on Internet of Medical Things: Challenges and Solutions	17-22, Aug. 2020	Veer Surendra Sai University of Technology, Burla	
49	STTP (Series - I, II, III) on the Internet of Medical Things Enabling Technologies in Health care	10-15, Aug. 2020	-	
50	Wearable Technologies	Feb. – May 2021	Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai	Dr. Pandiyarasan
51	Nanomaterials for wearable electronics applications	19, Mar. 2021	Coimbatore Institute of Technology, Coimbatore	
52	Virtual Mobility Program, Online University Visit	23, Dec. 2020	Faculty of Engineering, Universiti Malaya, Malaysia.	
53	Our body heat could charge future wearable electronics	23, Nov. 2020	G. Venkataswamy Naidu College, Kovilpatti	
54	MEMs	Sep.–Oct. 2020	Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai	

55	Thermoelectric generators for wearable electronic devices	24, Sep. 2020	JNTUA College of Engineering Ananthapuramu	Dr. Pandiyarasan
56	The Future of Portable Electronic Devices and its New Power Sources	28, Aug. 2020	Saveetha Institute of Medical and Technical Science, Thandalam	
57	An approach of smart manufacturing for textile technology opportunities and challenges	14, Sep. 2020	St. Joseph's College of Engineering, OMR, Chennai	
58	Renewable energy for the future of IoT applications	13, Aug.2020	Chennai Institute of Technology, Kundrathur	
59	Nanomaterials Thermoelectric power generation for wearable electronics	13, Jun. 2020	Kumaraguru College of Technology, Coimbatore	
60	Project Proposal writing and opportunities	09, Jun. 2020	Loyola ICAM College of Eng. Technology, Chennai	
61	Challenges and opportunities of emerging technology for VLSI	08, Jun. 2020	KCG College of Technology, Chennai	
62	Textile Technology in Energy Harvesting	22, May 2020	Vels Institute of Science and Technology, Pallavaram, Chennai	
63	ASEAN- India Research Training Fellowship and Funding's	20, May 2020	Department of Nuclear Technology, Technological University (Kyaukse), Myanmar.	
64	The Purview of Thermoelectric for the Future Sustainable Energy Sources	16, May 2020	Sathyabama Institute of Science and Technology, OMR, Chennai	
65	Autobiography of Nalini Jameela	11, Apr. 2020	School of Letters, Mahatma Gandhi University, Kottayam	Dr. Parvathy Das
66	Next generation solar cell for terrestrial and space applications	13, Mar. 2021	Indian Institute of Technology Indore	Dr. K P Pradhan
67	Emerging Nanoscale Devices for future technology nodes	10, Mar. 2021	Kongunadu College of Eng. and Technology, Trichy	

68	Emerging Nanoscale Devices for future technology nodes	17, Feb. 2021	Kongunadu College of Engineering and Technology, Trichy	Dr. K P Pradhan
69	Scaling of Nano Devices: Opportunities and Challenges	06, Jan. 2021	SRM IST, Chennai	
70	Scaling of Nano Devices: Opportunities and Challenges	14, Dec. 2020	Sathyabama Institute of Science and Technology, Chennai	
71	Scaling of Nano Devices: Opportunities and Challenges	11, Nov. 2020	Sathyabama Institute of Science and Technology, Chennai	
72	Progress in Semiconductor Device Technology: A Pathway to Follow Moore's Law	14, Oct. 2020	SRM IST, Chennai	
73	Recent trends in semiconductor devices and future perspectives	16, Jun. 2020	Anil Neerukonda Institute of Technology & Sciences, Visakhapatnam	
74	Recent trends in semiconductor devices and future perspectives	29, Jul. 2020	SNS College of Technology, Coimbatore	
75	Progress in Semiconductor Device Technology: A Pathway to Follow Moore's Law	04, Aug. 2020	KL University Andhra Pradesh	
76	Miniaturized antenna design for high resolution imaging sensors	28-30, Jul. 2020	IIITDM Kancheepuram	Dr. Perna Saxena
77	Soft computing techniques for antenna array pattern synthesis	7-12, Sep. 2020	AITAM, Andhra Pradesh	
78	Metamaterial loaded antenna design for high resolution imaging applications	7-12, Sep 2020	AITAM, Andhra Pradesh	
79	Products & Techniques for Additive Manufacturing	07, Dec. 2020	B S Abdur Rahman Crescent Institute of Science & Technology	Dr K. Senthilkumaran
80	3D Printing in Industry 4.0	21. Jan. 2021	Chennai Institute of Technology	Dr. Srijith K
81	Engaging Learners through Moodle	10, Sep. 2020	IIIT Tiruchirappalli and IIITDM Kurnool	
82	Sensing with nerves of glass	5, Aug. 2020	Adi Shankara Institute of	

			Engineering and Technology, Kerala	
83	Fiber Bragg Gratings- Principles and Applications	3, Jul. 2020	St. Joseph's Institute of Technology, Chennai	Dr. Srijith K
84	Engaging Learners through Communication and Collaboration in Moodle	8-9, Jun. 2020, 18-19, Jun. 2020	IIIT Tiruchirappalli and IIITDM Kurnool	
85	Biomedical applications of fiber Bragg grating sensors	18, May 2020	SRM Institute of Science and Technology	
86	2D Semiconductors for NEMS	20, Aug. 2020	NIT Silchar.	Dr. Tejendra Dixit
87	2D semiconductors: Promising materials for next generation devices	23, Jun. 2020	NIT Patna.	
88	Development of 2D Semiconductors based Next generation optoelectronics	28, Oct. 2020	NIT Surathkal.	
89	Next-generation Optoelectronic Devices using Oxide Semiconductors	20, Nov. 2020	AKGEC Ghaziabad	
90	Silicon nanowire-based hybrid solar cells: From fundamentals to recent advances	8-13, Mar. 2021	IIT Indore	Dr Vivek kumar
91	The behavior of light: wave or particle	8, Feb. 2021	Shivji College, University of Delhi	
92	On the simultaneous 3-divisibility of class numbers	-	Universite Laval, Quebec, Canada	Dr. M Subramani
93	On the simultaneous 3-divisibility of class numbers	-	University of Colorado, Boulder, USA	
94	Simultaneous divisibility of class numbers, Number Theory Down Under 8	-	University of Melbourne, Australia	
95	Euclidean algebraic number fields	-	SRM IST Ramapuram	
96	Robotics and Automation	6-10 July 2020	VIT University, Chennai Campus	Dr. M Sreekumar
97	Recent Advances & Applications of Machine Learning and IoT in Mechanical Engineering	27 Feb. 2021.	Sagar Institute of Science & Technology, Bhopal,	
98	Smart Actuators for Robotic Applications	15 Sep 2020.	K S Rangasamy College of Technology, Tiruchengode, Namakkal	

Sponsored Research and Consultancy

I Sponsored Research

i) Completed as on 31 March 2021

1. Development of a Nanofluid Coolant for high heat flux devices with Mini-channel heat Exchanger.
Principal Investigator: Dr. Raja B
Sponsor: DST- Fast Track
Duration: 3 Years
Value: 12.89 Lakhs
2. 5 axis STEP-NC (AP-238) Machining of Free Form / Irregular Contoured Surfaces
Principal Investigator: Dr. Arivazhagan A
Sponsor: DST- Fast Track
Duration: 3 Years
Value: 13.80 Lakhs
3. Design, development and characterization of all fiber interferometer for wavelength interleaving and temperature sensing applications
Principal Investigator: Dr. Naveen Kumar
Sponsor: DST- Fast Track
Duration: 2 Years
Value: 16.92 Lakhs
4. Design, development and performance evaluation of enhanced aircooling in electronic systems
Principal Investigator: Dr. S Jayavel
Sponsor: DST- Fast Track
Duration: 2 Years
Value: 15.05 Lakhs
5. Rural and Remote Ubiquitous Broadband Wireless Access
Principal Investigator: Dr. M D Selvaraj
Sponsor: UKIERI
Duration: 2 Years
Value: 15.84 Lakhs
6. Design and Development of energy efficient freeze dryer with multiport mini-channel shelf heat exchanger
Principal Investigator: Dr. Raja B (PI), Dr. Sreekumar (Co-PI)
Sponsor: DST-SERB
Duration: 3 Years
Value: 27.20 Lakhs

7. Control and operation of agents in a multi-agent fixturing system with swarm control
Principal Investigator: Dr. M Sreekumar
Sponsor: University of Genoa, Italy
Duration: 2 Years
Value: 11.67 Lakhs
8. Development of a Computer-Assisted Surgical Methodology for Orthopedic-Bone Surgery
Principal Investigator: Dr. Pandithevan
Sponsor: DST-SERB
Duration: 3 Years
Value: 21.54 Lakhs
9. Performance Enhancement and Reliable Operation of Wind-PV Distribution System Supplying AC/DC Loads with Remote Condition Monitoring
Principal Investigator: Dr. Vijayakumar K
Sponsor: DST-SERB
Duration: 3 Years
Value: 7.14 Lakhs
10. Early detection of Kidney abnormalities in noisy ultrasound images
Principal Investigator: Dr. Priyanka Kokil
Sponsor: DST-SERB
Duration: 3 Years
Value: 21.91 Lakhs
11. Early detection of cataract: An IoT based approach
Principal Investigator: Dr. Priyanka Kokil
Sponsor: DST-SERB
Duration: 3 Years
Value: 16.85 Lakhs
12. Investigations on the Cell Phone Tower Radiation and Mitigation Techniques
Principal Investigator: Dr. M D Selvaraj
Sponsor: DST-SERB
Duration: 3 Years
Value: 32.51 Lakhs
13. Design, Development, Manufacture, and Evaluation of Laser Cut Stent Patterns for Enhanced Performance and Life
Principal Investigator: Dr. M Sreekumar (PI), Dr. K Jayabal (Co PI)
Sponsor: DST-AMT
Duration: 2 Years
Value: 48.30 Lakhs

14. Vertex Separators and its Variants: Structural and Algorithmic Study
Principal Investigator: Dr. Sadagopan
Sponsor: National Board for Higher Mathematics (NBHM), DAE, GOI
Duration: 3 Years
Value: 11.33 Lakhs
15. People counter for Bus
Principal Investigator: Dr. V Masilamani (PI),
Prof. Banshidhar Majhi (Co PI)
Sponsor: Ms.Vamo Systems Private Limited, Chennai
Duration: 1 Year
Value: 2.00 Lakhs
16. Machine Learning Algorithms for Security Applications & Image Processing
Principal Investigator: Dr. V Masilamani (PI),
Prof. Banshidhar Majhi (Co PI), Dr. Noor Mahammad (Co PI)
Sponsor: Forensics Intelligence Surveillance and Security Technologies Pvt.
Ltd. Chennai
Duration: 2 Years
Value: 6.00 Lakhs
17. The phase structured coherent light beams for enhanced transmission."
Principal Investigator: Dr. Jayachandra Bingi
Sponsor: DST Bilateral Cooperation
Duration: 2 Years
Value: 16.90 Lakhs
18. Feasibility study on Computer Vision Based Angular Measurement of Wheels
Without Markers
Principal Investigator: Manatec Electronics
Sponsor: Dr. V Masilamani
Duration: - Years
Value: 1.41 Lakhs
19. Simulation Study on Control System and Centralized Plant
Principal Investigator: Dr. K Selvajyothei
Sponsor: SRHVAC
Duration: 6 Months
Value: 1.95 Lakhs
20. Knowledge Graph for adverse drug reaction (ADR) association for safety signal
detection using public safety database
Principal Investigator: Dr. Masilamani (PI), Dr. Sivaselvan (Co PI),
Dr. Munesh (Co PI).
Sponsor: Data Foundry Pvt Ltd, Bangalore
Duration: 1 Years
Value: 15.50 Lakhs

21. Scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)
Principal Investigator: Dr. S Rajasekara Pandian
Sponsor: Dept. of Higher Education-MHRD
Duration: 5 Years
Value: 583.20 Lakhs

ii) **Ongoing and sanctioned during 2020-21**

1. Special Manpower Development Programme for Chips to System Design under CEERI-Pilani
Principal Investigator: Dr. Noor Mahammad Shak, Dr. Binsu Kailath
Sponsor: Deity-SMDP
Duration: 5 Years
Value: 53.88 Lakhs
2. MoU with IIT Hyderabad for Design Innovation Centre project.
Principal Investigator: Dr. Naveen Kumar
Sponsor: IITH-DIC
Duration: Yet to Receive
Value: 42.00 Lakhs
3. Performance Evaluation and Modeling of Multi Agent Based Smart Manufacturing Integrated with Swarm Intelligence and IoT
Principal Investigator: Dr. M Sreekumar (PI) and Dr. K Premkumar (Co PI)
Sponsor: DST-ICPS
Duration: 3 Years
Value: 32.90 Lakhs
4. Photo Induced Excess Charge Mediated Fluoride Ion Filtration
Principal Investigator: Dr. Jayachandra Bingi
Sponsor: DST-SERB
Duration: 30 Months
Value: 23.75 Lakhs
5. On Spanning Trees - Generalizations and Variants (Theory and Algorithms)
Principal Investigator: Dr. Sadagopan
Sponsor: DST-SERB
Duration: 3 Years
Value: 17.40Lakhs
6. Development of novel deep learning, visual servoing approaches for improved detection of anti-tank mines using thermal vision assisted mobile robot
Principal Investigator: Prof. Banshidhar Majhi (PI), Dr. Denis Ashok (VIT University) (Co PI)
Sponsor: DST-TARE
Duration: 3 Years
Value: 18.30 Lakhs

7. Development of 3D printed wearable Button Antenna for Soldier Performance Monitoring Applications
Principal Investigator: Dr. K Senthilkumaran (PI), Dr S s Karthikeyan (NIT Trichy) (Co-PI), Dr. K V Eswaramoorthy (IIITDM Kurnool) (Co-PI)
Sponsor: IMPRINT2
Duration: 3 Years
Value: 50.53 Lakhs
8. Investigation on the effect of ZnO Nanowire Interface on the Moisture Diffusion and Mechanical Performance of Composites
Principal Investigator: Dr. S Gowthaman
Sponsor: DRDO- RIC - CARS Project
Duration: 2 Years
Value: 9.87 Lakhs
9. Development of Novel Grid Synchronization Algorithm for Grid Interactive Photovoltaic Power Generation System
Principal Investigator: Dr. B Chitti Babu
Sponsor: DST-SERB
Duration: 3 Years
Value: 34.54 Lakhs
10. Low cost and high efficiency portable thermoelectric cooler boxes for medicines, vaccines and bio-samples
Principal Investigator: Dr. S Gowthaman
Sponsor: DST-Innovation Technology Development and Deployment
Duration: 2 Years
Value: 11.03 Lakhs
11. Development of an advanced electronic device for privacy in conversation over mobile phones using active noise control techniques
Principal Investigator: Dr. Asutosh Kar
Sponsor: Global Mantra Innovations Private Limited
Duration: 3 Years
Value: 29.88 Lakhs
12. Graphene-Silicon Nano-Wire Based Schottky Junction Solar Cells for Enhanced Light Harvesting
Principal Investigator: Dr. Vivek Kumar
Sponsor: DST-SERB
Duration: 3 Years
Value: 51.57 Lakhs
13. Complexity of Star Colouring and its Restricted Version
Principal Investigator: Dr. Shalu M A
Sponsor: DST-SERB
Duration: 3 Years
Value: 6.60 Lakhs

14. Wearable Thermoelectric Power Generator
Principal Investigator: Dr. Pandiyarasan V
Sponsor: DST Inspire
Duration: 5 Years
Value: 35.00 Lakhs
15. Metals Oxide based thin films for photodetectors
Principal Investigator: Dr. Ashok Kumar Reddy
Sponsor: DST Inspire
Duration: 5 Years
Value: 35.00 Lakhs
16. Stability analysis of non-linear discrete dynamical systems subject to interference
Principal Investigator: Dr. Priyanka Kokil
Sponsor: National Board for Higher Mathematics (NBHM), DAE, GOI
Duration: 3 Years
Value: 13.12 Lakhs
17. Awareness and Research Avenues in Computer Engineering
Principal Investigator: Dr. Sivaselvan (PI), Dr. Sadagopan (Co PI).
Sponsor: GAVS, Chennai
Duration: 2 Years
Value: 2.10 Lakhs
18. Virtual energy storage based demand response algorithm to enhance the performance of the battery energy storage in smart grid
Principal Investigator: Dr. Vijayakumar
Sponsor: DST TMD
Duration: 3 Years
Value: 27.49 Lakhs
19. Studies on the strength and durability of ZnO Nano wire/T1000 carbon/epoxy composites for fly wheel energy storage
Principal Investigator: Dr. Gowthman
Sponsor: DST TMD
Duration: 3 Years
Value: 41.25 Lakhs
20. Accelerated krylov subspace based solvers for Fourier-Galerkin based homogenization of periodic media & parallel implementations
Principal Investigator: Dr. N Mishra
Sponsor: DSR SRG
Duration: 2 Years
Value: 31.90 Lakhs

21. Fast solvers for the large linear systems and their convergence analysis in application to PageRank problem"
Principal Investigator: Dr. N Mishra
Sponsor: SERB
Duration: 3 Years
Value: 22.02 Lakhs
22. Development of hyper visco-elastic material model in AUTODYN for polyurea and conduct validation studies through blast and ballistic experiments for neat and polyurea coated RCC and mild steel samples
Principal Investigator: Dr. Raguraman (PI), Dr. AVS Prasad (Co PI).
Sponsor: DRDO ARMREB
Duration: 3 Years
Value: 31.09 Lakhs
23. Development of Fresh Water Pearl Culture Unit Based on IoT-Data Analytics
Principal Investigator: Dr. Munesh
Sponsor: DST
Duration: 3 Years
Value: 16.40 Lakhs
24. Materials for Methanol Gas Sensor
Principal Investigator: Anushree P Khandale
Sponsor: Industrial Project MNT
Duration: 2 Years
Value: 5 Lakhs
25. Detection and Diagnosis of Intentional Electromagnetic Interference Attack on Critical Network
Principal Investigator: Dr. Prem Kumar (PI), Dr. Prerna Saxena (Co PI).
Sponsor: SERB
Duration: 3 Years
Value: 80.87 Lakhs
26. Detection and prevention of forged obscene images/videos in the social networks.
Principal Investigator: Dr. Masilamani V
Sponsor: MHA
Duration: 9 Months
Value: 48.96 Lakhs
27. Development of TiOx Based Films for IR Bolometer Detectors
Principal Investigator: Dr. Y. Ashok Kumar Reddy
Sponsor: DRDO-CARS
Duration: 2 Years
Value: 42.99 Lakhs

28. Development of SLM build strategies for thin-walled Ti6Al4V structural components
Principal Investigator: Dr. M. Raguraman & Co P.I Dr. A.V.S. Siva Prasad
Sponsor: DRDO
Duration: 1 Year
Value: 8.57 Lakhs
29. Development of a low cost Microfluid Device for Loop-Mediated Isothermal Amplification of DNA
Principal Investigator: Dr. Karthick S & Co-PI Dr. Srijit
Sponsor: Industrial Project Agappe Diagnostics Limited , Kerala
Duration: 18 Months
Value: 22.94 Lakhs
30. Design & Development of Non-Invasive Geo-physical Method based system for locating hidden septic
Principal Investigator: Dr.Noor Mahhamad SK
Sponsor: M/s FISST
Duration: 1 Year
Value: 20.53 Lakhs
31. Unifying approaches to demonstrate Fin FET based Leaky Integrate and Fire Neuron for Neuromorphic Computing
Principal Investigator: Dr. K.P Pradhan
Sponsor: DST-SERB
Duration: 2 Years
Value: 12.80 Lakhs
32. A Decision-Making Algorithm for Driving Assistance System based on Environment Visibility Conditions
Principal Investigator: Dr. Appina Balasubramaniam
Sponsor: DST-SERB
Duration: 2 Years
Value: 14.67 Lakhs
33. Design and Development of a Novel Battery pack
Principal Investigator: Dr. Selvajyothi & Co-PI Dr. Raja B
Sponsor: Satmars Innovative company
Duration: 6 Months
Value: 2.12 Lakhs
34. Development of Integrated Banana Fibre Extraction Technologies and Value-Added Products
Principal Investigator: Dr. Raguraman
Co-Principal Investigator: Dr. AVS Sivaprasad, Dr. Kalpana P
Sponsor: GBPL Pvt Ltd
Duration: 6 Months
Value: 195.80 Lakhs

35. Testing and Characterisation of Evolvable Hardware algorithm to develop fault tolerant electronics architecture
Principal Investigator: Dr. Noor Mahammad Shak & Co-PI Dr V Masilamani
Sponsor: RIC DRDO
Duration: 2 Years
Value: 45.42 Lakhs
36. Light weight design for motor bikes with composites
Principal Investigator: Dr. Timaraju V
Sponsor: TVS Motors
Duration: 2 Years
Value: 22.78 Lakhs
37. Hybridization of flexible thermoelectric and piezoelectric devices for energy harvesting
Principal Investigator: Dr. Pandiyarasan, Co P.I - Dr Jayabal K
Sponsor: DST-ASRT (Indo-Egypt)
Duration: 2 years
Value: 9.1 Lakhs

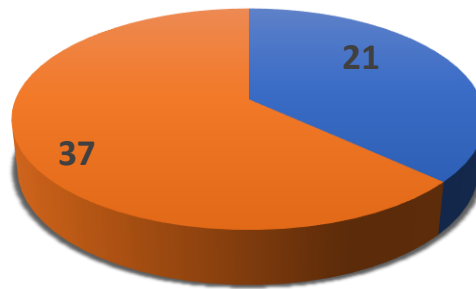
II Consultancy Projects

Sl. No.	Principal Investigator	Agency	Project Title	Amount, Rs.
1	Prof. R.Gnanamoorthy	M/s. Indus Elastomers, Chennai	Friction Analysis on Characteristics (wet and dry)of Plastic (HDPE) sample surface against Plastic	27,575
2	Prof. R.Gnanamoorthy	M/s. Indus Elastomers, Chennai	Friction Analysis on Characteristics (wet and dry)of Plastic (HDPE) sample surface against Rubber, Concrete & Steel	55,150
3	Prof. R.Gnanamoorthy	M/s. Henkel Chembond Surface Technologies Ltd, Navi Mumbai	Friction analysis of Automotive Steels	49,568

Sl. No.	Principal Investigator	Agency	Project Title	Amount, Rs.
4	Prof. R.Gnanamoorthy	M/s. Harita NTI Ltd, Chennai	Coefficient of Friction analysis of different coatings	50,000
5	Dr.T.S.Narayanan	Ms.Nanocell Networks Private Limited, Bangalore	IP Multimedia Training for Torry Harris Business Solutions	106,200
6	Dr.Karthik Narayanan, Dr.Suresh Varadharajan	Ms.Tube Investments of India Ltd, Chennai	Smart Manufacturing Pilot Project (Phase - I)	77,880
7	Dr.T.S.Narayanan	Ms.Timmins Training Consulting, Malaysia	Software Design Network (SDN) Workshop	98,000
8	Dr.T.S.Narayanan	Ms.Nanocell Networks Private Limited, Bangalore	IP Networking, Samsung, South Korea	115,640
9	Dr.T.S.Narayanan	Ms.Timmins Training Consulting, Malaysia	Software Defined Wide Area Network (SD-WAN) Workshop	28,800
10	Dr Noor	M/s UCAL Fuel System Limited	LB CRG for others Training Programm of Microcontroller & Interface	67,850
11	Dr.T.S.Narayanan	Ms.Timmins Training Consulting, Malaysia	Software Defined Wide Area Network (SD-WAN) Workshop	52,800
12	Dr.T.S.Narayanan	Ms.Timmins Training Consulting, Malaysia	Software Defined Wide Area Network (SD-WAN) Workshop	88,000

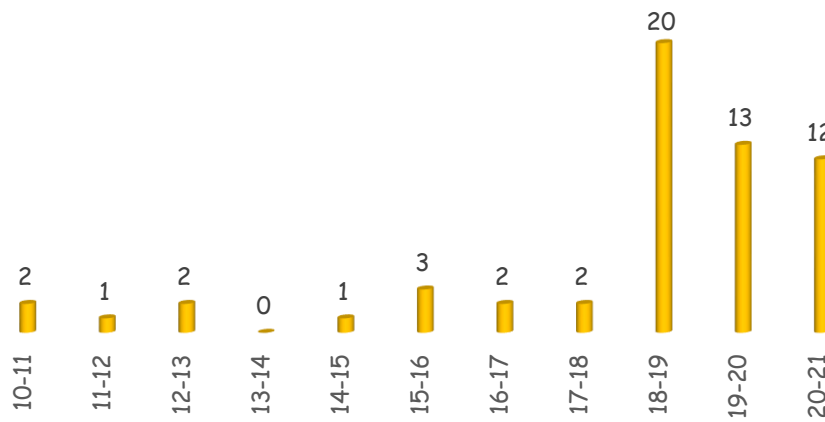
Sl. No.	Principal Investigator	Agency	Project Title	Amount, Rs.
13	Dr.T.S.Narayanan	Ms.Nanocell Networks Private Limited, Bangalore	Metro Enternet Workshop for TATA Tele Services	77,880
14	Dr.T.S.Narayanan	M/s Tata Elxsi, Trivandrum	Networking with IP-v6 and Linux IP TABLETS	1,18,118
15	Dr.T.S.Narayanan	Ms.Nanocell Networks Private Limited, Bangalore	SDN and NFV Workshop fpr L&P Technology	1,55,760
16	Dr.T.S.Narayanan	M/s Tata Elxsi, Bangalore	TCP/IP for Broadband Engineers	1,77,120
17	Dr.Raguraman	M/s Stree Man Ltd, Derby U.K	Consultancy charges done from 23.9.2019 to 11.10.2019	3,42,484
18	Dr. Selvajyothi	M/s HBL Power System Ltd, Hyderabad	Technical Assistance needed to design, specify components, fabricate, install and test Hybrid ESS combining Super Capacitors being developed by HBL	12,80,000
19	Dr. Shahul Hamid Khan	M/s Sugarbee Logistics solutions (P) Ltd	Data Analytics for logistics Industry	2,00,000

Number of Funded Projects

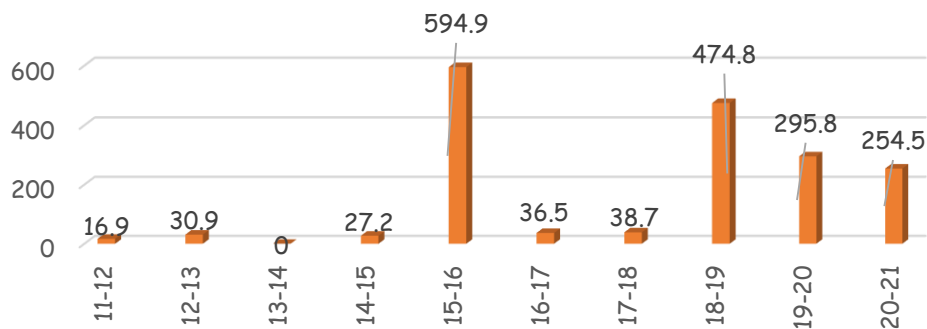


■ Completed ■ Ongoing

Number of Funded Projects-Year wise



Value of Funded Projects (in Lakhs)-Year wise



International Collaborations and MoUs

IIITDM signed MoU's with reputed universities both in India and abroad. This enables the Institute to collaborate for research with renowned scientists. The students of the Institute are also getting opportunities to undergo internship at these places. The Institute is having MoU with Nagaoka University of Technology and Nagasaki University of Japan along with University of Genoa, Italy and National University of Science and Technology (NUST), Moscow, Russia, Chettinad Hospital, Chennai and with National Design and Research Forum. During the year 2020-2021 the institute signed the MoU with various industries as listed below.

Sl. NO.	PARTNER - INDUSTRY / INSTITUTE	AREAS OF COOPERATION
1	Agappe Diagnostics Limited	Research Collaboration
2	Oretes Consulting Pvt. Ltd.	Joint Development Agreement
3	ICAR National Research Centre for Banana, Trichy National Design & Research Forum, Bangalore	Development of Projects or ventures, collaborative research programmes & training
4	Vanmok Innovations ("Vanmok") Edmonton, CANADA	Research Collaboration
5	Gencrest Bio Fibre Private Limited	Research Collaboration
6	NITT, IIITDM KURNOOL, SVP Laser Technologies	Academic and Research Collaboration
7	CSIR – Central Electronics Engineering Research Institute (CSIR – CEERI)	Institutional Collaboration
8	Fibtech Enterprises	Development of Banana Fibre Extraction Machineries



Signing MoU with (ICAR) National Research Centre for Banana, Trichy



Teaching Learning Centre (TLC)



Teaching Learning Centre for Design and Manufacturing Education

During last academic year, our Teaching Learning Centre (TLC) at IIITDM Kancheepuram funded by Pandit Madhan Mohan Malviya National Mission on Teachers and Teaching scheme of the Ministry of Education has made significant progress in terms of establishing new infrastructure. TLC has created a state-of-art model makerspace to promote project-based learning in teaching-learning process among faculty from other engineering colleges. TLC has recently established a Swayam complaint studio for preparing MOOC courses. TLC has also established a state-of-the-art immersive classroom recording studio for the preparation of interactive classroom lectures. In addition, many new labs were established such as smart product design lab, visual design studio, physical prototyping lab, virtual prototyping lab, Electronics prototyping and a digital fabrication lab as part of the G+4 makerspace.



Digital Fabrication Lab



Mechanical Workshop



CNC Machines Lab



Physical Prototyping Lab



Virtual Prototyping Lab



Mechatronics Lab



Electronics Fab Lab



Smart Product Design Lab



Design Studio



Immersive Classroom Recording Studio



MOOC Recording Studio



Visual Design Studio

TLC has organized a series of webinars during the pandemic and reached out to more than 8000 participants mainly in 3D printing, robotics, CNC, and industry 4.0. The participants were faculty, students from colleges, Polytechnique, schools, and ITIs. In the educational technology development front, TLC has developed an affordable collaborative Robot and many CNC machines for educational use. Many engineering colleges have visited the TLC makerspace and TLC has motivated them to undertake project-based learning to find solutions for social, industrial, and strategically relevant problems. TLC is also helping teachers from various schools to get prepared and trained for the vocationalization of education advocated by the new education policy (NEP 2020). To help the community during the pandemic, TLC has developed and supplied Personal Protective Equipment (PPEs) for health workers for nearby medical school to fight against COVID 19.

Event Photographs

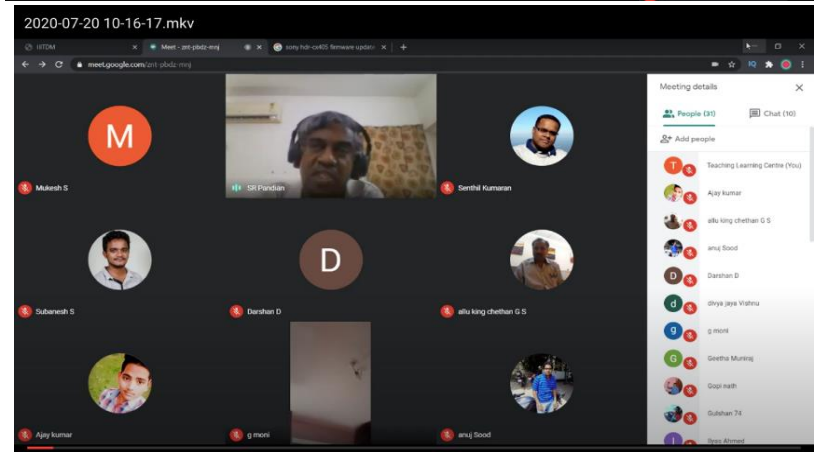
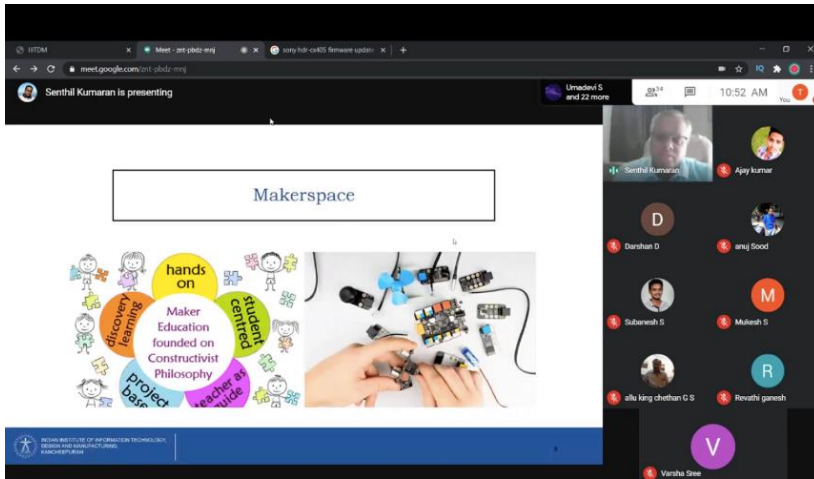
The slide titled "Additive Manufacturing" features a graph on the right showing "Costs" on the y-axis and "Geometric complexity" on the x-axis. A green curve labeled "Additive Manufacturing" rises steeply, while a blue curve labeled "Conventional manufacturing technologies" rises more gradually. A vertical red line marks the "Design for Additive Manufacturing" threshold. To the right of this threshold, a blue box labeled "complexity for free" lists "Same costs", "Higher margins", and "Higher profits". A diagram on the left shows a hexagonal process model with vertices labeled: "Customized for the individual", "Max Customization", "Plan Manufacturing", "Risk Complexity", "Competition Advantage", and "Artisan Products". The slide footer includes the IITD logo, "I4.0 Webinar on 8th May 2020", and the number "27".

Webinar on 3D printing

After the session, kindly fill the feedback which is mentioned in DESCRIPTION BOX or click here

The screenshot shows an online training session. The main window features a speaker, Senthilkumar, in front of a backdrop with logos for PMMMNTT, IITD Kanchipuram, and the National Mission on Teachers and Teaching. Two smaller windows show participants: Subanish and MAHAT. The bottom right corner has a "TLC Live" logo.

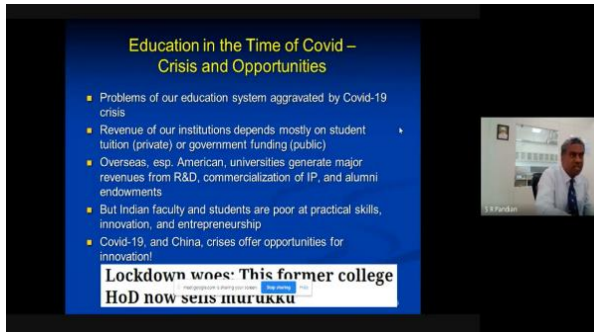
Online simulation training of Arduino



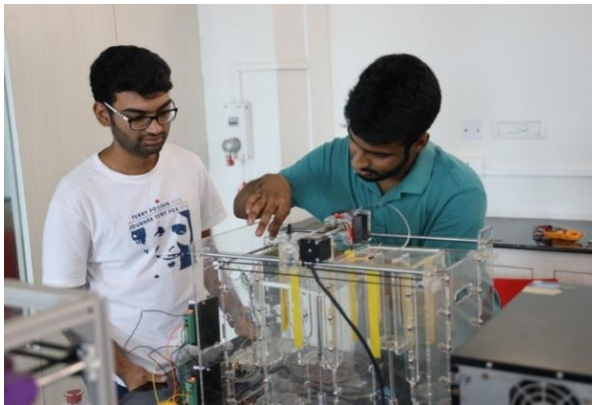
5-Day Training on Programming Arduino using TinkerCAD and its application in Affordable CNC machines and IoT



Inauguration of TLC studio



3D Printing for fighting COVID



DIY fabrication of machines by GKM engineering college

3-day workshop on Makerspace Development




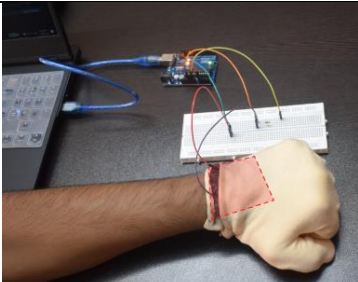
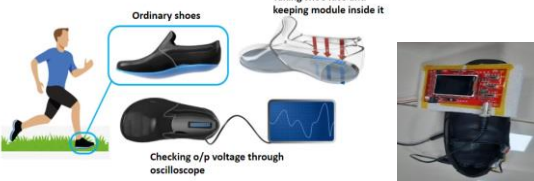

DIY machines fabrication for Meenakshi Sundararajan Engineering College



SMart and Innovative Laboratory for Energy devices (SMILE) Lab

Smile Lab which came into existence at IIITDM barely a couple of years before has achieved remarkable progress in terms of prototypes with patent potentials, research grants, journal publications, conference presentations, organizing international workshop, national and international collaborations, besides bringing recognitions to the institute and its own. Those associated with this lab, both the faculty and the students, have brought laurels through ‘Best Innovative Teacher’ award, best project award, best post poster presentation award among others. The following sheds some light on the activities carried out in Smile Lab and the fruitful results it bestowed. Currently, Dr. Pandiyarasan and Dr. Jayabal are associated faculty with this lab while students of all program, B.Tech, M.Tech and PhD, besides internship students across India and abroad, are carrying out research.

PROTOTYPES

<p>ALL WEATHER JACKET Personalised thermoregulatory clothing that will keep humans comfortable either warm or cool as per the change in temperature and other parameters (Sivarenjini TM)</p>	 <p>The diagram illustrates a person wearing a jacket. On the left, a blue thermometer icon indicates cold weather, and the jacket is shown with red arrows pointing inward, labeled 'Keeps body warm during cold weather'. On the right, a red thermometer icon indicates hot weather, and the jacket is shown with blue arrows pointing outward, labeled 'Keeps body cool during hot weather'.</p>
<p>Wearable sensors with real-time monitoring of the physiological profile The project looks to address major pain/strain points in the human body by smart clothing through the fields of textile and nanotechnology (Emmanuel, P. Sabhareesh, V. Pradeep)</p>	 <p>A photograph showing a person's hand wearing a yellow sensor patch. The patch is connected to a small electronic circuit board with various components and wires.</p>
<p>Smart shoe It is a self-powered health monitoring parameter as well as tracking system for kids and senior citizens (Deepika)</p>	 <p>The image shows a diagram of an 'Ordinary shoes' and a 'Smart shoe' with a sensor module. A person is shown running. The smart shoe is connected to a circuit board. A photo shows the sensor module being checked on an oscilloscope. Labels include 'Taking shoe lace and keeping module inside it' and 'Checking o/p voltage through oscilloscope'.</p>
<p>Modified Inkjet printer for MEMs fabrication This work is to print thin film Thermoelectrics on paper based material or appropriate fabric using suitably prepared ink, which will make production of TEGs economically viable (Anupriya Gopal)</p>	 <p>Two photographs showing the modified inkjet printer setup. The left photo shows the printer with a thin film substrate being printed. The right photo shows the printer with a thin film substrate being printed.</p>

RESEARCH CREDENTIALS

1. Pandiyarasan Veluswamy (PI), Jayabal (Co PI), Department of Science & Technology (DST), and Academy of Scientific Research and Technology (ASRT), Egypt, Bi-Lateral Project, Hybridization of flexible thermoelectric and piezoelectric devices for energy harvesting (2020 – 2022), Value: 9.1 Lakh
2. Pandiyarasan Veluswamy (Mentor), Visiting Scientist Programme Indian National Science Academy (INSA), Experimental study on complete thermoelectric performance of Ca-based $\text{Ca}_{0.5}\text{Ba}_{0.5}\text{Te}_{0.5}\text{Se}_{0.5}$ chalcogenide (2020 – 2022).



Photographs of Student Activities @SMILE Lab



MaDeIT Innovation Foundation

MaDeIT Innovation Foundation is a design-driven Technology Business Incubator promoted by IIITDM Kancheepuram and supported and catalyzed by the NSTEDB division of the Department of Science and Technology, Govt. of India. MaDeIT was incorporated as a not-for-profit Section 8 Company under the Companies Act, 2013 on 10th August, 2016. In the last five years, MaDeIT has laid the foundations to advance the vision and visibility of IIITDM by adopting an integrated approach to design thinking, product innovation and incubation among IIITDM students, Startups and SMEs in the manufacturing sector. The developments of MaDeIT in terms of incubation activity, student-led innovation, mentor and partner ecosystem, and financial support are discussed below.

Incubation Activity

In the past five years, MaDeIT organized about 18 rounds of selection and shortlisted 69 companies from a pool of 150+ applications. About 40 companies have joined MaDeIT and fifteen of them have graduated, while nine companies were not successful. At present MaDeIT has 16 incubatee companies in its portfolio, 2 companies in pre-incubation and another 3 in the pipeline. The companies are pursuing product innovation in three areas: (a) Non-invasive diagnostic

systems; (b) Smart products and (c) Product-service systems cutting across industry domains such as medtech, cleantech, agritech and mobility. The incubatee companies are supported by a dedicated design team and a fab lab with design and rapid prototyping tools.

Student-led Innovation

IIITDM's business case argues for promoting a new breed of engineer-entrepreneurs who can lead the change in the Indian manufacturing sector. In line with this vision, MaDeIT has actively engaged IIITDM students by providing them exposure to industry and startup leaders through invited talks, one-day workshops/hackathons, EHIPASSIKO industry open-house event (winter and summer), three-week sandbox programs (COVIDYA winter and summer) and offering internship opportunities with incubatees, MaDeIT and for pre-incubation. These efforts have started bearing results. In the financial year 2020-21, four IIITDM student startups were selected by MaDeIT for incubation.

Mentor and partner ecosystem

MaDeIT's approach to mentor and partner ecosystem has been driven by principles of open-innovation and focused on the manufacturing sector. In the five years of its operation MaDeIT has developed a mentor network comprising 60+ experts from the industry and startup ecosystem. They play an active role in mentoring the incubatee companies and students on issues pertaining to product development through various events organized by MaDeIT. Members of the incubatee companies also mentor students. MaDeIT has also developed active working relations with a set of partners to enhance client access for incubatee companies. The partner ecosystem includes large corporates, industry bodies like CII, AIEMA, TANSTIA, TiE Chennai, NASSCOM and Government bodies like EDII, MSME DI and other incubators and colleges in and around Chennai.

Financial Support and Self-sustenance

MaDeIT started with a seed grant provided by the NSTEDB division of the Department of Science and Technology in 2016. In the last five years, it has reached critical milestones set by NSTEDB and has also won competitive bids for NIDHI seed support, NIDHI accelerator program and the NIDHI PRAYAS program. Till date, MaDeIT received Rs 411 lakhs in the form of capital and recurring grants for operating the incubator, and another Rs 200 lakhs for providing seed fund for incubatees. For the financial year 2020-21, MaDeIT generated a non-interest revenue of Rs 38 lakhs (which is 31.72% of its operating expenditure). Its design services accounted for 70% of total revenue. MaDeIT's performance is reviewed twice a year by the Strategic Advisory Board comprising experts from the Government, industry and academic.

Institute Innovation Council (IIC)

Innovation Activities in IIITDM:

IIITDM Kancheepuram has been ranked in the top 25 among central institutions in the Atal Ranking of Institutions on Innovation Achievement (ARIIA 2020). This is an encouraging sign for the nascent innovation ecosystem that has been nurtured over the past five years through the design-centric engineering curriculum, incubation initiatives of MaDeIT and the events organized by the Institute Innovation Council (IIC).

Inspite of the pandemic, IIC continued with the motto that innovation need not stop due to the lockdown. IIC organized online events to improve awareness of design and innovation among students. These include five interactive sessions with alumni, EHIPASSIKO Winter and national competitions such as Smart India Hackathon 2020 and Toycathon 2021.

The tenth edition of EHIPASSIKO (industry open house) was organized in an online mode. A total of 650 students from second and third year participated in the event. About 105 teams with product concepts and business plans relating to verticals such as agritech, medtech, cleantech, automotive, consumer electronics were showcased through fifteen parallel sessions. About 40+ external members from the industry and startup ecosystem participated in the event to evaluate and provide feedback on the student concepts. The entire event was planned and moderated by the IIC student members.

IIC also encouraged IIITDM student teams to participate in national events such as the Smart India Hackathon and Toycathon. One team was shortlisted for the final round of Smart India Hackathon 2020 event. About 10 teams participated in the Toycathon event, and three have been shortlisted for the final round to be held in June 2021.

During the year, the institute also formulated the IPR policy and adopted the National Innovation Startup Policy in consultation with all the stakeholders. These policies are expected to give more thrust to the innovation initiatives of the institute.



ATAL RANKING OF INSTITUTIONS
ON INNOVATION ACHIEVEMENTS

Certificate of Appreciation

This is to certify that

**Indian Institute of Information Technology, Design &
Manufacturing, Kancheepuram**

is categorized as 'Band A' institution (rank between 11-25) in category of
'Institute of National Importance, Central Universities & CFTIs' in Atal Ranking
of Institutions on Innovation Achievement (ARIIA) 2020 announced on 18th Aug
2020.

Dr. Anil D Sahasrabudhe
Chairman, AICTE

Sh. Amit Khare
Secretary (HE), MHRD

Dr. Abhay Jere
Chief Innovation Officer
MHRD's Innovation Cell

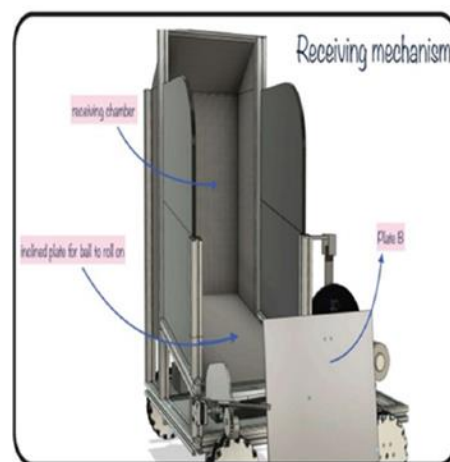
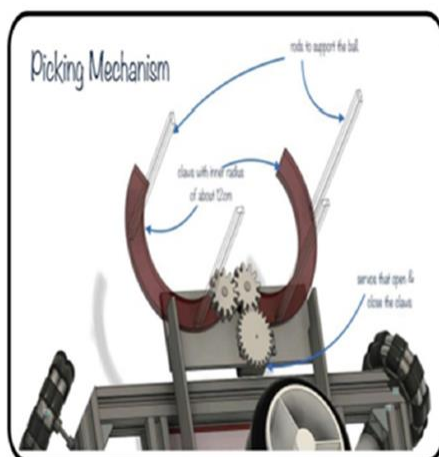
Design Innovation Center (DIC)

Design Innovation Centre (DIC) has been established in 2017 to inculcate, facilitate and spread the culture of innovation among the students, faculty, aspirants and relevant stakeholders through innovative engineering and industrial design-oriented courses, special training workshops, internships on product design, seminars by experts, organizing design competitions, industrial visits and outreach activities. The progress report by the DIC in year 2020-2021 can be categorized in terms of Product development, Design competitions, Internships, Awards and Recognition.

A. Product Development

Students and staff working under the guidance of different faculty are sponsored by DIC IIITDM Kancheepuram and under its patronage, they have designed and developed a variety of products suitable for different useful applications. Some of the important product design and development activities leading to promising product deliverable prototypes with major focus on Smart Healthcare, Automation, E-Transportation, Renewable Energy, etc. are briefed below.

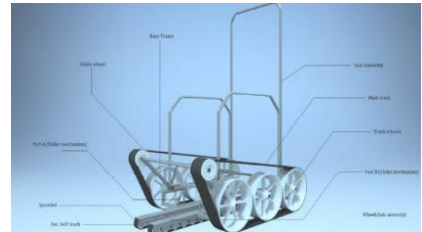
1. Robocon: The main aim of the project is to build play rugby 7's game using two robots and five obstacles as five defending players for participating in the ABU Robocon 2020 Suva contest. The highlight of this game is how the two robots collaborate to score Try and the Goal Kick. Two robots have to be developed, one is Passing Robot – to pass the rugby ball and the other is Try Robot – to kick the rugby ball into the goal area. The prototype for the same were designed and successfully simulated on virtual platform by a group of students.



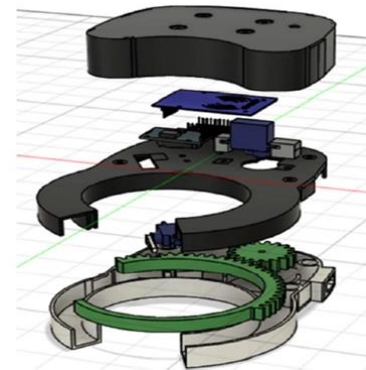
2. Smart Health Gazette: An automatic, low-cost non-invasive health monitoring electronic gazette has been designed and developed for monitoring the pulse rate, temperature and hemoglobin in the blood of the human body. The gazette design resembles a smart watch and is wearable around the wrist. Possibilities are being explored for commercializing the same.



3. All Terrain Wheelchair: The All-terrain wheelchairs are the wheelchairs which are meant to be used on rough, uneven terrain. They are stronger and statically more stable than the ordinary wheelchairs. So the all-terrain wheel chair design is made such as the dimensions of the chair are within the golden ratio for smooth mobility of the chair. Such designs have a lot of applications in the area of defense where all-terrain vehicles are needed for offensive action and neutralizing varieties of threats.



4. Smart Locking System: The smart cycle lock design features the modular approach to store its functional units is based on RFID authentication and is working on the principle of electromagnetic induction. The lock's hardware base has been made independent of the lock's computing unit to favor branched growth in both the directions. The lock's fitness infrastructure can be upgraded to ensure maximum reliability of the whole setup. Introduction of linear actuator and metal gear servo will encourage the convenient redesign of the lock with insights for water proofing and maximum shock resistance.



5. Microchip controls have been employed to automate the production of sandwiches and a vending machine apparatus that automatically assembles a made-to-order food item such as a sandwich, in response to a customer order. Dispensed ingredients may include one or more condiments, dressings, seasonings, small pieces of cheese, small pieces of diced vegetables, the fabricated functional prototype of vending machine also include a toaster that toasts the sandwich. A microcontroller that controls the conveyer and the



ingredient dispensing stations may be included and uses a RF Id system for the payment.

6. Foot Operated Sanitizer Dispenser: Considering the urgent requirement in the time of COVID -29, a low cost, fully enclosed foot operated hand sanitizer dispenser has been designed in developed and placed at gates of several important locations in the Institute.



B. Internships

DIC IIITDM Kancheepuram offers internships to students throughout the year and the interns with innovative designs and successful prototypes are felicitated with stipend, support and funding for the development of a working prototypes. A number of students were enrolled during the last year for working in DIC on different product design activities.

C. Product Design Competitions:

Product Design Competition was conducted by Design Innovation Centre on Aug 28, 2020 and 17 Students presented their design ideas and two groups were selected for implementing their designs into functional prototype. Students' product design activities have been facilitated by sponsoring their designs and an expenditure of Rs. 60000.00 was incurred towards the same. In addition, some other students working on different Design Competitions to be organized in India or abroad have been sponsored in kind to meet their requirement.

D. Award and Recognition:

A dual degree student Mr. Aravind CB (MPD 15I014) received the best project award during convocation 2020 for his project entitled "Design and Analysis of Low-Temperature Differential Stirling Engines"

Centre for AI, IoT and Robotics

IIITDM Kancheepuram has established the Center for AI, IoT, and Robotics in February 2019 which would support GoI schemes such as Make in India, Digital India, Start-up India, Skill India and Smart City Schemes. Dr. M Sreekumar, Associate Professor of Mechanical Engineering is the head of this centre. The following are the accomplishments during the period of report.

Publications (as on 31 March 2021)

Journals:

1. Gothandaraman, R. and Muthuswamy, S., 2020. "Robot-assisted 3D digital reconstruction of heritage artifacts: area similarity approach. *Industrial Robot: the international journal of robotics research and application*.
2. Penumuru, D.P., Muthuswamy, S. and Karumbu, P., 2019. "Identification and classification of materials using machine vision and machine learning in the context of industry 4.0". *Journal of Intelligent Manufacturing*, pp.1-13.
3. Veeramani, S., Muthuswamy, S., Sagar, K. and Zoppi, M., 2019. "Artificial intelligence planners for multi-head path planning of SwarmItFIX agents". *Journal of Intelligent Manufacturing*, pp.1-18.3

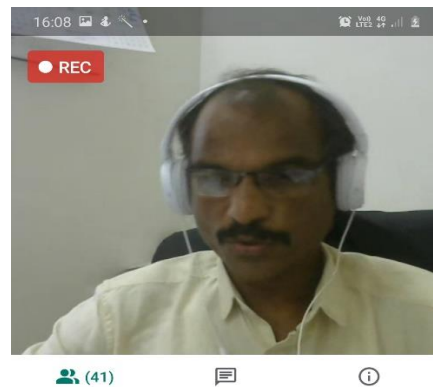
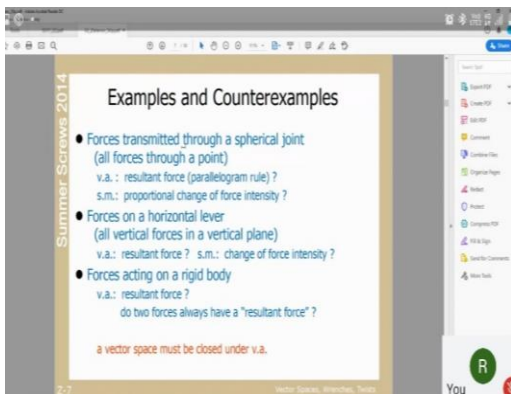
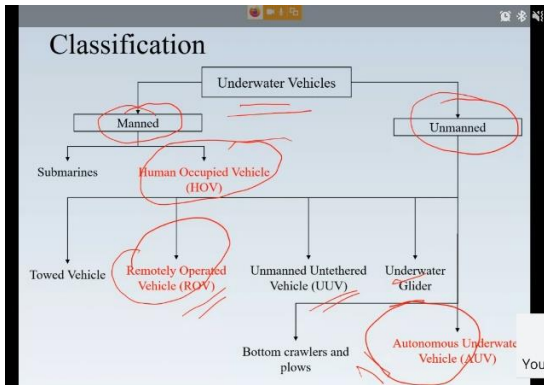
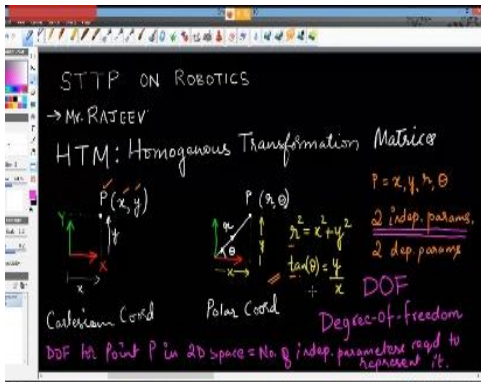
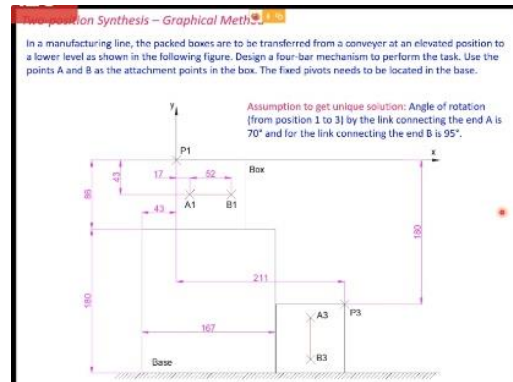
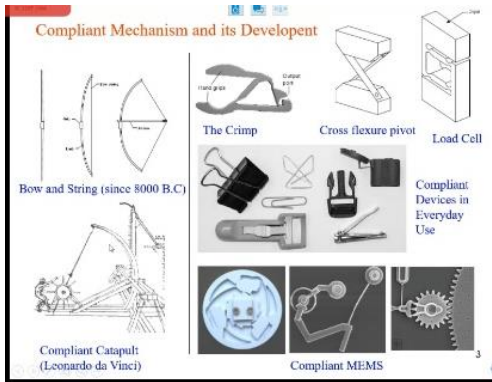
Conferences:

4. Narayanan, K.B. and Sreekumar, M., 2019. "Modelling and Analysis of Multi-agent Approach for an IoT-Enabled Autonomous Manufacturing System". In *Advances in Computational Methods in Manufacturing* (pp. 643-653). Springer, Singapore.
5. Patel, ZB. and Muthuswamy, S., 2020. "A Machine Learning Scheme for Tool Wear Monitoring and Replacement in IoT-Enabled Smart Manufacturing". In: *Deepak B., Parhi D., Jena P. (eds) Innovative Product Design and Intelligent Manufacturing Systems. Lecture Notes in Mechanical Engineering*. Springer, Singapore.
6. Satheeshkumar, V. and Sreekumar, M., 2020. "Reinforcement Learning based Path Planning of the Mobile Agents with Constrained Locomotion for the Material Handling Applications", *4th Conference on Information & Communication Technology (CICT)*, Chennai, Dec 2020, IEEE Explore.
7. Rajkumar, G., Rohitkumar, J. and Sreekumar, M., 2020, "Reflectional and Rotation Symmetry Detection of CAD Models based on Point Cloud Processing", *4th Conference on Information & Communication Technology (CICT)*, Chennai, Dec 2020, IEEE Explore.

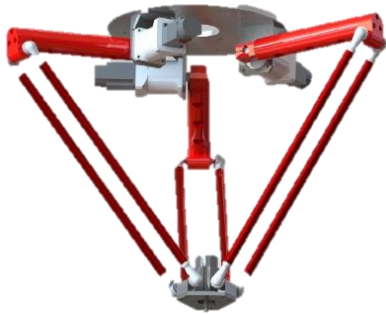
Events Organized

One Week Online Short-Term Training Program (STTP) on Digital Design, Analysis, and Synthesis of Robot Mechanisms: Learning and Instruction through Online Platforms, during 20-24 July 2020 with 47 participants and most of them are faculties and Phd scholars of reputed Institutions such as IIT, NIT, IIIT, Government engineering colleges, and other private Institutions.

Snips of the Online STTP Program



Equipment installed

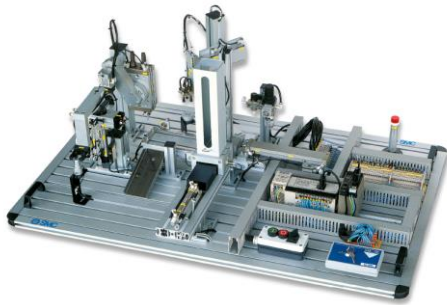


Delta Robot

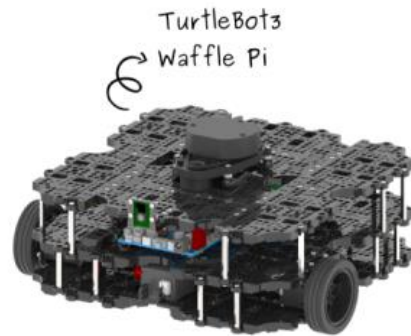


IoT enabled hydraulic sorting mechanism

In the process of procurement



IoT Enabled Industry Automation System



Turtle Bot

Centre for Smart Manufacturing

Centre for Smart Manufacturing is an inter-disciplinary research centre focused on IT enabled Design and Manufacturing at IIITDM Kancheepuram. This centre plan to develop IT products relevant to Industry 4.0 platform technologies such as Additive Manufacturing, Internet of Things, Augmented Reality and Virtual Reality, Cloud Manufacturing, Digital Thread and Digital Twin. The main objective is to study the interoperability issues in disparate information systems of life cycle, value chain and enterprise domain in an extended manufacturing enterprise. Further, the centre aims to bridge the gap between the human and digital world by interfacing human cognitive capabilities into IoT systems. Distributed manufacturing paradigms are vital to decentralize the manufacturing and the main the challenge we address is to evolve novel product architectures catering to need of such smart manufacturing systems. For these objectives, we have teamed up with major universities and leading industries for collaborative development of the technology and transfer to industry in the end.

Recent Publications:

1. Kumar, H.A., Kumaraguru, S., Paul, C.P. and Bindra, K.S., 2021. Faster temperature prediction in the powder bed fusion process through the development of a surrogate model. *Optics & Laser Technology*, 141, p.107122.
2. C. N. Naga Priya, S. D. Ashok, Bhanshidar Maji, and K. S. Kumaran, "Deep Learning Based Thermal Image Processing Approach for Detection of Buried Objects and Mines", *Eng. J.*, vol. 25, no. 3, pp. 61-67, Mar. 2021.
3. M. Ethirajan, J. Kandasamy, and S. Kumaraguru, "Connecting Engineering Technology with Enterprise Systems for Sustainable Supply Chain Management," *Smart and Sustainable Manufacturing Systems*, 4, no. 1 (2020): 33-48.
4. Manoharan, M., Shridhar, A.N., Vinod, V.Y. and Kumaraguru, S., 2020, December. A Novel Volume Decomposition Methodology for Multi-Robots Collaborative Additive Manufacturing. In *2020 IEEE 4th Conference on Information & Communication Technology (CICT)* (pp. 1-6). IEEE.
5. Jayapal J, Kumaraguru S., and Varadarajan V., Part Consolidation in Design for Additive Manufacturing: A Two-Level Approach Using Complexity Metrics Chakrabarti, Amaresh. *Design for Tomorrow—Volume 2: Proceedings of ICoRD 2021*. Springer Nature. pp 881-892

Sponsored Project ongoing: 3D printed antenna for performance monitoring (Imprint 2)

Invited Talks Delivered: More than 10 AICTE workshops

Products Developed:

- Aerosol Jetting for 3D circuit printing
- Multi-Material 3D Printing system
- Open-source fibre laser system
- Collaborative Robot

Professional service: Contributions to working group 5.7 of IFIP

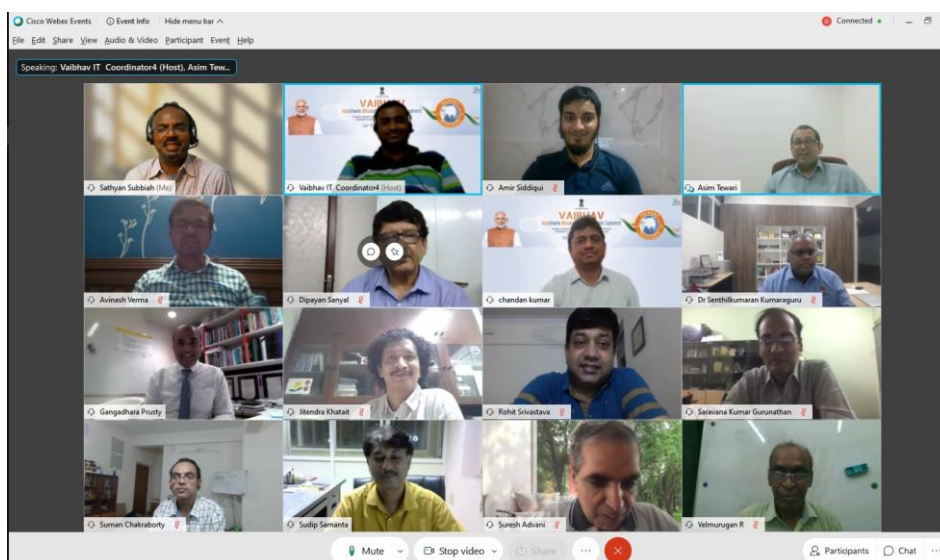
Visiting Researchers: Dr Denis Ashok, VIT University working for a TARE project in the centre.

Visiting Interns: 5 students from Meenakshi Sundaresan Engineering college, Chennai

Presentation in Vaibhav Summit (<https://innovate.mygov.in/vaibhav-summit/#tab1>)



(https://www.pmindia.gov.in/en/news_updates/pm-delivers-inaugural-address-at-vaibhav-2020-summit/)



VII. Student Activities and Achievements

Achievements in Academics

Anirudh sathish, CS20B1125, has participated and secured first place in a technical quiz conducted by the turing society, department of computer science, Acharya Narendra Dev College, University of Delhi.

Madhuvanathi EVD16I009 has participated and presented poster in IBM IEEE CAS/EDS AI Compute symposium conducted in October 2020.

A team of four members (Subhajit Sinha, Aiyush Goyal, Jeeva Keshav, Chirag CM) has qualified for the semi-finals of swadeshi microprocessor challenge.

A team of four members (Subhajit Sinha, Aiyush Goyal, Jeeva Keshav, Chirag CM) has ventured into a startup in the name "Naturex Technologies LLP.

G. Pavan Sai presented has won both Best Paper Award and Best Presenter Award in VLSI Track in IBM IEEE CAS/EDS AI Compute symposium conducted in October 2020.



Placements 2020-21

Placement season 2020-21 is conducted under unprecedented circumstances due to Covid lockdowns in the Institute. This year remained a challenging period for the students, hiring companies as well as the placement team.

IIITDM placement team led by Dr Jayabal Associate Professor, Dr Asutosh Kar and Dr Munesh Pal Singh and Institute Training and Placement officer could achieve placements. Students team led by the Placement Secretary, placement coordinators and volunteers have also put in their effort for finding placement for all students. Due to Covid -19 lockdown, the entire year's placement calendar is rescheduled and placements are still happening for 2021 passing out batch. Placements began as early as in August 2020.

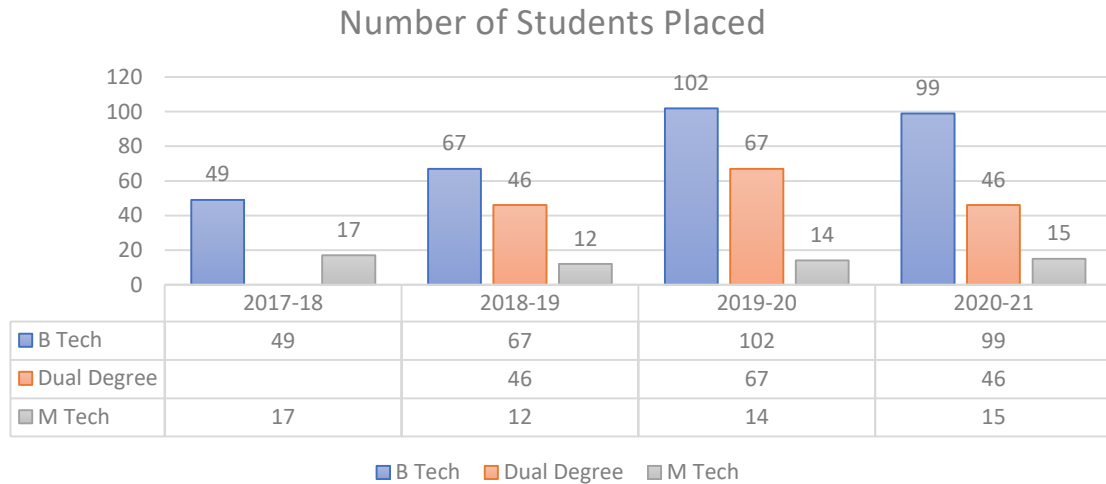
IIITDM Kancheepuram has good placements with companies like Microsoft, AMD, ZOOM India, IBM, Larsen and Tourbro, Ericsson, Microchip and Samsung providing opportunities to students. In the year 2020-21, 80+ companies visited the campus for virtual selections which recruited 160 (continuing) students. The highest CTC was recorded to be 42 LPA and the average salary was 9.79 LPA for the 2021 passing out batch including B Tech. M Tech and Dual Degree M Tech.

IIITDM Kancheepuram Placement Highlights 2020-21

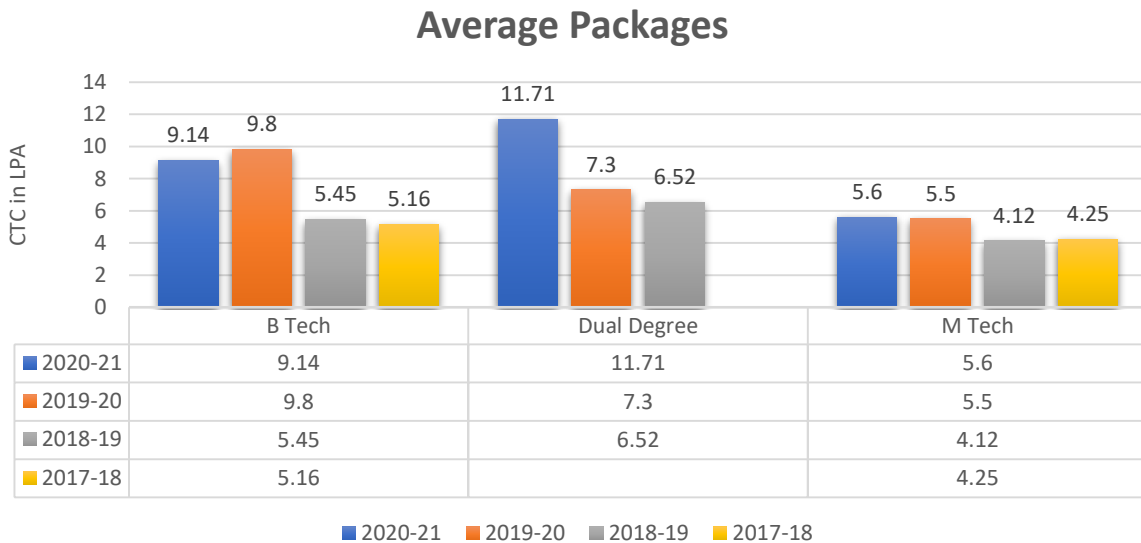
Particulars	Salary/Stats
Total no. of companies visited	80+
Total no. of placed students	160+
Highest package	44 LPA
Average package	9.79 LPA
Lowest package	3.8 LPA
Median package	6.8 LPA
Top recruiters	Zoom India, AMD, Capgemini, TCS, CGI, Infosys

Placement Trends 2020-21

The graph below exhibits the placement trends of IIIT Kancheeपुरam wherein the data represent the no of students placed in each UG branch for the year 2018, 2019, 2020 and 2021 are given below:



Average package details for the year 2018-19-20-21 is as follows:



CTC breakdown of offers

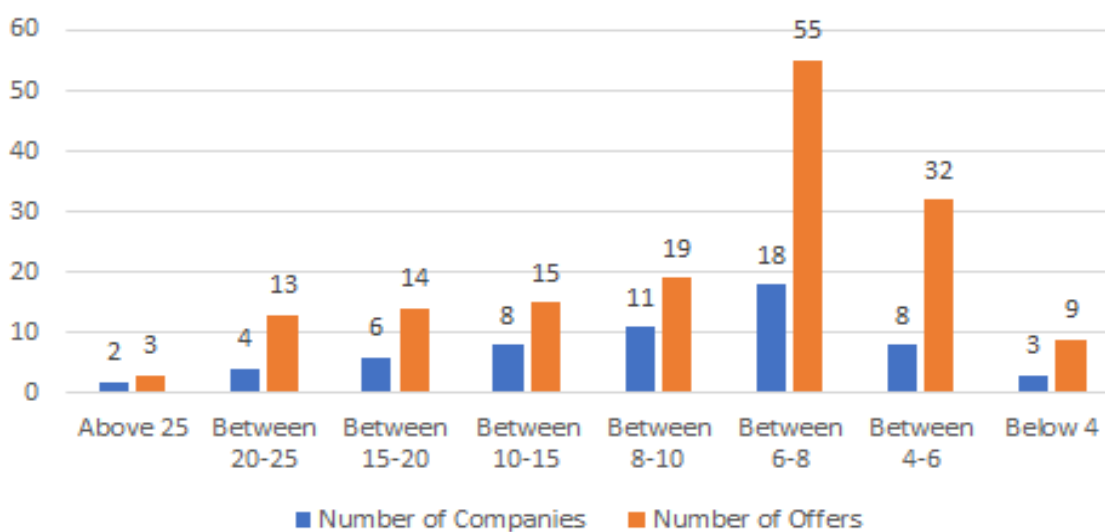
The jobs offered by recruiting organizations are divided into various categories based on the gross compensation packages. Factors other than compensation package, such as job profile, past association etc. may sometimes influence the classification of a company. Salary-wise classification of total offers made in the year 2019-20 is shown in Table.

Placement details based on compensation

Range of gross salary (in lakh rupees per annum)	Number of Companies	Number of Offers
Above 25	02	03
Between 20-25	04	13
Between 15-20	06	14
Between 10-15	08	15
Between 8-10	11	19
Between 6-8	18	55
Between 4-6	08	32
Below 4	03	09
Total	60	160

*Some organizations may have offered jobs in multiple salary categories.

Distribution of placement offers



Program wise placements are given as follows:

Course	Registered	Participated in placements	No of offers	Average offer
COE	34	33	47	10.33
CED	39	32	30	11.62
EDM	29	28	33	8.17
EVD	12	12	8	13.83
ESD	10	8	2	5.90
EDS	13	11	4	7.53
CDS	11	11	7	9.77
MDM	24	18	5	4.98
MSM	22	20	14	8.91
MPD	10	8	3	11.67
MFD	11	9	3	10.87
MDS	14	5	1	3.80
SMT	7	5	3	7.07
	236	200	160	9.79

Companies given opportunity to IIITDM Students during the year 2020-21

ACCENTURE	FORD	RUDDERSTACK
ADF	GAVS TECHNOLOGIES	SAINT GOBAIN
ALLY.IO	HCL	SAMA NEXTGEN
AMD	HIRAONE	STARTSMAT LABS
ARANGO DB	HPS International	TCS
BRIGHT CAPTIAL	IBM	TEXAS INSTUMENTS
Cambridge Mobile		
Telematics (CMT)	INDIA HEALTH LINK	TINY BANYAN TECH
CAPEGEMINI	INFOSYS	VEDANTU
CGI	Reliance JIO	ZENTRON
CHECKTRONICS	LIVNSENSE	ZOOM INDIA
		nVipani Technology
CLOUDSEK	LOWE'S INDIA	Solutions
CONGRUENT	LT INFO TECH	NXP SEMICONDUCTORS
CONGRUENT		
TECHNOLOGY		
SOLUTIONS	LTTS	QUANTRIUM TECH
DATA ACES	MATHWORKS	RESILEO LABS
ENIXTRA INNOVATIONS	MICROCHIP	MICROSOFT
Entrayn Education		
Technologies (P) Ltd.	ERICSSON GLOBAL	

VIII.Events Organized

Workshops/STTP/STC/ Organized

Sl.No	Event	Date	Organizer
1	A Faculty Development Programme on Nanoscience and Nanotechnology (Energy, Environment and Health care) is associated with Sathyabama Institute of Science and Technology, Chennai, India. [Virtual mode]	29 Jun. 2020 – 07 Jul. 2020	Dr. S. Jayabal & Dr. Pandiyarasan
2	Digital Design, Analysis and Synthesis of Robot Mechanisms : Learning and Instruction through online platforms	20-24, Jul. 2020	Dr. M Sreekumar
3	Programming Arduino using Tinker CAD and its application in Affordable CNC Machines and IOT”	20-24, Jul. 2020	Dr. Senthilkumaran K
4	International Workshop on Energy Technology and Sensor Systems is associate with Universiti Malaya, Malaysia; Malaysian Thermoelectric Society (MTeS), Malaysia, and Federation of Indian Chambers of Commerce & Industry (FICCI), India. [Virtual mode]	28-30, Jul. 2020	Dr. S. Jayabal & Dr. Pandiyarasan
5	five-day virtual short-term course on "Research Opportunities in “Semiconductor Materials and Devices” ROSMD-2020"	22-26, Oct. 2020	Dr. Tejendra Dixit Dr. K P Pradhan
6	<i>ATAL FDP on Energy Storage</i>	27-31, Oct. 2020	Dr. B. Chitti Babu
7	ATAL- Data Science using Python Workshop	16-20, Nov. 2020	Dr. B. Sivaselvan
8	ATAL-Artificial Intelligence & its Applications Workshop	01-05, Dec. 2020	Dr. Umarani J
9	International Conference on Information and Communication Technology CICT2020	03-05, Dec. 2020	Dr. Binsu J Kailath
10	AICTE training and learning (ATAL) sponsored one-week online FDP on 3d Printing & Design, jointly organized by SMart and Innovative Laboratory for Energy devices (SMILE), Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kancheepuram, Chennai, India. [Virtual mode]	04–08, Jan 2021	Dr. S. Jayabal & Dr. Pandiyarasan
11	Research Opportunities in Biomedical Engineering: Theory to Device (ROBIE)	08–12, Jan. 2021	Dr. Priyanka Kokil
12	Advancements in Signal Processing and Artificial Intelligence in Healthcare (ASPSIH)	15 – 24, Feb. 2021	Dr. Priyanka Kokil

The International Conference on Information and Communication Technology (CICT 2020)

The Conference on Information and Communication Technology (CICT) is the annual flagship conference jointly organized by the five MoE-funded Indian Institutes of Information Technology (IIITs). CICT aims to provide a forum for researchers, industry professionals, and academicians to present and exchange their ideas in latest technological advancements and innovations in the field of Information and Communication Technology. The conference features keynote lectures, Ph.D. symposium, Industry forum and about 85 technical contributions from India and abroad, which have been identified through a double-blind review process.

The 4th edition of this series was hosted from December 3-5, 2020 by IIITDM Kancheepuram, Chennai, an Institute of National Importance established by the GoI to pursue design and manufacturing oriented engineering education and research. Due to the CoVID-19 pandemic, IEEE CICT 2020 was conducted online. The event was hosted on 10times platform (<https://cict2020.floor.bz/cast/501844>).

CICT 2020 featured keynote lectures by global stalwarts like Prof. Thomas Kailath, Hitachi America Professor Emeritus of Engineering, Dept. of Electrical Engineering, Stanford University, Prof. Mischa Dohler, Chair Professor of Wireless Communications, King's College, London and Prof. Kiran Kumar Kuchi, Professor, Dept. of Electrical Engineering, IIT Hyderabad.

In addition, the conference also hosted an Industry Forum which includes a plenary talk by Mr. Narendra Ghate, Chief Designer, Tata Elxsi and a panel discussion on Impact of 5G on IOT and Digital transformation in Indian Manufacturing which included Mr. Abhik Chatterjee, MD, Centre for Digital in Oil & Gas, BCG India, Mr. Chandrasekar VR, Head of Digital Transformation, JK Fenner and Mr. Eashwar Prasad, Head-BSS Presales, Ericsson India as panelists.

The details of the keynote lectures are given below:

Dec 3, 2020 03:00 PM - 04.30 PM INAUGURAL KEYNOTE ADDRESS : 5G and the Internet of Skills by Prof. Mischa Dohler, Chair Professor of Wireless Communications, King's College, London

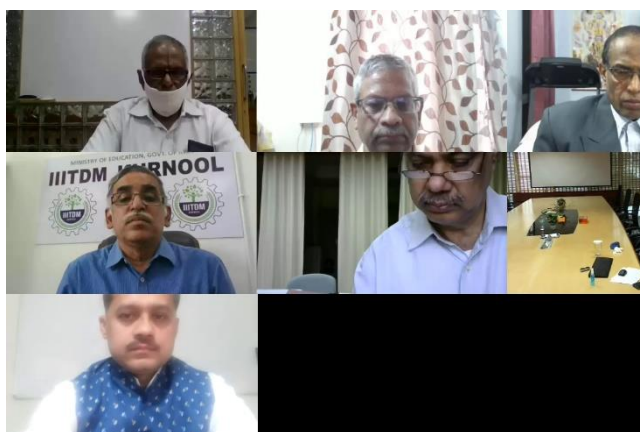
Dec 4, 2020 09.00 AM - 10.30 AM KEYNOTE ADDRESS: On the Process of Making Breakthroughs in Engineering by Prof. Thomas Kailath, Hitachi America Professor Emeritus of Engineering, Dept. of Electrical Engineering, Stanford University,

Dec 4, 2020 03:00 PM - 04.30 PM INDUSTRY FORUM – Plenary Talk: Potent Cocktail of UX + AI by Mr Narendra Ghate, Chief Designer, Tata Elxsi

Dec 5, 2020 02:00 PM - 03:30PM VALEDICTORY KEYNOTE ADDRESS, India’s Ascent up the 5G Ladder by Prof. Kiran Kumar Kuchi, Dept. of Electrical Engineering, IIT Hyderabad

The conference featured presentations on contributed papers from India and abroad in 12 different tracks viz. Artificial Intelligence and Machine Learning, Big Data Analytics and Cloud computing, CoVID-19 Technologies and Data Analysis, Circuits and Systems for Signal and data processing, Digital security and Information privacy, Theoretical Computer Science, Internet of everything and Wireless Sensor networks, Bio Inspired Computing and Neural Networks, Next generation Communication Technologies, ICT in Robotics and Automation, Signal, Image and Video processing, Photonics and Optical Systems. The conference was technically co-sponsored by IEEE Madras section.

We had received a total of 154 submissions in regular tracks, 12 in PhD Track and 14 in Best PhD thesis submissions. We are happy to inform you that papers have been received from multiple countries including the United States of America. The submission-review system was supported on EasyChair platform. Double blind review system was followed to identify the best papers with an acceptance rate of 52% in regular track and 58% in PhD track. About 200 reviewers contributed to the review process in multiple tracks and the 15 Track chairs managed the review system. The acceptance was based on the scores submitted by the reviewers and the winners for the Best Paper Award were selected based on the highest average scores. Camera ready paper submission was also managed on the easy chair platform. Authors of the accepted papers had submitted recorded presentations which helped immensely in the smooth conduct of all the sessions. All the presented papers have been indexed in IEEE Xplore Digital Library.



Inaugural_Ceremony



Prof.S.G.Deshmukh_Founder_CICT



Prof.Thomas_Kailath



Prof.S.Sadagopan_chairman_BoG_IIT
DMK

"Industry 4.0"

"Human 4.0"

VISION: INTERNET OF SKILLS

- pioneering the next generation Internet, the Internet of Skills, which is underpinned by 5G and beyond
- will be an enabler for remote skillset delivery and thereby democratize labour globally the same way as the Internet has democratized knowledge
- <http://money.cnn.com/2018/02/05/technology/business/5g-internet-of-skills/index.html>

Prof.Mischa_Dohler

Dr. Prem Rawat, PhD graduate from IIT Kanpur under the joint supervision of Prof. K. Vasudevan and Prof. Aditya K Jagannatham bagged the First Place in the Best PhD Thesis Award for his thesis on FBMC-based signal processing techniques for wireless systems.

Dr. Binsu J Kailath, Dean (Academics) & Associate Professor in the department of ECE was the Organizing Chair of the 4th IEEE CICT 2020 and the core organizing committee included Dr. Srijith K and Dr. Appina Balasubramanyam, Assistant Professors in the department of ECE.

Research Scholars' Day

Research Scholars Day (RSD) is an annual event celebrated by the PhD and Master's students. This year's RSD (RSD2021) was grandly celebrated on 27th February as an online event due to the existing COVID-19 pandemic. Prof. Majhi (Director, IIITDM Kancheepuram) delivered the inaugural address and Prof. S. P. Venkateshan (Professor Emeritus, IIITDM Kancheepuram) and Prof. S. Narayanan (Professor Emeritus, IIITDM Kancheepuram) delivered the opening remarks about the event. Prof. B.S. Murthy (Director, IIT Hyderabad) delivered the plenary lecture on "The Exciting World at the Small Scale". The event saw an enthusiastic participation of faculty and students. It provided an excellent platform for senior research scholars to showcase their research work through online presentations and interact with other students, faculty and guests. The event concluded with certificate distribution to the research scholars and closing remarks by Dr. Binsu J Kailath (Dean Academics, IIITDM Kancheepuram). The event enhanced the student-faculty interaction and helped in motivating the research scholars to excel in their research work.



RSD 2021 – 27th February 2021

Plenary talk by Prof. B. S. Murthy on

"The Exciting World at the Small Scale"

IX. Calendar Events-Institute Celebrations

21 June, 2020 International Day of Yoga (IDY-2020)

Following is the list of events and activities that were conducted in connection with the International Day of Yoga Celebrations:

- (1) Yoga practice session was conducted on 21/06/2020 and around 100 People actively participated including Director, Registrar, Deans, Prof. In Charge Sports, Faculty, Staff, Research Scholars, PG and UG students.
- (2) The Yoga session was conducted by Dr. P. Alaguraj, Sr. Physical Training Instructor of the institute. Each asana was demonstrated and the audience also joined in performing the asana.
- (3) An article writing competition on “Yoga and its importance during COVID – 19” was conducted for institute UG, PG Students and Research Scholars. There were 18 articles received from students.
- (4) An “Virtual Yoga Contest” (Online yoga competition) conducted for Students, Scholars, Staff and Faculty.
- (5) An online quiz on “Yoga and COVID-19” 25 multiple choice question about COVID-19 and yoga was also conducted. 160 members including students, scholars, staff and faculty attended the quiz and E-Certificates were given for people who secured more than 50%.
- (6) Online daily 1 asana practice through WhatsApp also conducted for institute Scholars, Staff and Faculty from 10 June 2020 to 21 June 2020.



Welcome
Address – Dr. K
P Pradhan,
Prof. In Charge
– Sports



Inaugural
Address – Prof.
Banshidhar
Majhi, Director



IDY2020
Report – Dr.
Naveen Kumar
Vats - Dean -
Student Affairs



Mr. A.
Chidambaram -
Registrar



Vote of Thanks
– Dr. P.
Alaguraj – Sr.
PTI

Yoga practice session – Dr. P. Alaguraj – Sr. PTI



Virtual Yoga Contest



AARURAN S/o Dr. Priyanka Kokil, HOD, ECE Department



DHIVYA SREE D/o Dr. Sivaselvan B Associate Professor – CSE Department



NITHIN S/o Mr. Pandian, Asst. Engineer - Civil



NETHRA SHREE D/o Mr. Pandian, Asst. Engineer - Civil



LALITA VATS D/o Dr. Naveen Kumar Vats - Dean Student Affairs



KRSNA PRIYA VATS D/o Dr. Naveen Kumar Vats - Dean Student Affairs



DASARI BHAVYA DEEPIKA – EVD15I010



SHRATHA D/o Mr. Ram Kumar, Junior Engineer - Electrical



Dr. K P PRADHAN – Prof. In Charge - Sports



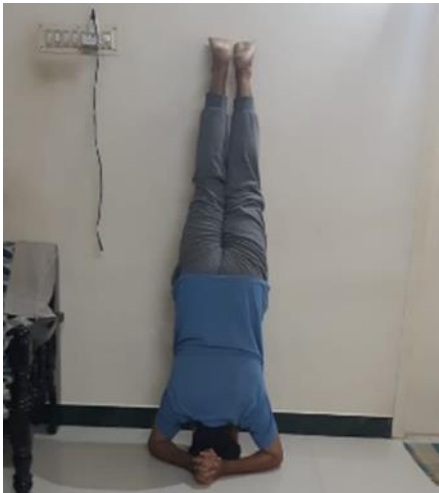
Dr. ANUSHREE KHANDALE – Assistant Professor, Dept. of Physics



Dr. PRIYANKA KOKIL – HOD, ECE Department



Mr. Pandian – Assistant Engineer - Civil



Mr. RAM KUMAR – Junior Engineer - Electrical



Mrs. LALITHA AMBAL, M/o Dr. PRIYANKA KOKIL – HOD, ECE Department

15 August, 2020 74th Independence Day





Tree Plantation on Independence Day





29 August, 2020, National Sports Day 2020

Online Sports Quiz

20 multiple choice questions about Indian Sports activities were asked, 128 students participated in this online quiz. The E- Certificates were issued to the participants those who were scored more than 50%.

The image displays two screenshots of a Google Forms quiz interface. The left screenshot shows the quiz title "National Sports Day 2020" and "All changes saved in Drive". Below the title, there is a banner for "NATIONAL SPORTS DAY BIRTH ANNIVERSARY OF Major Dhyan Chand Singh 29 August 1905 - 12 December 1979". The quiz is titled "IITD&M Kancheepuram- National Sports Day Celebration 2020" and includes a note: "National Sports Day 2020- Online Quiz. E-Certificate will be issued who score 50% and above." The right screenshot shows the "Summary" tab with "128 responses" and "Accepting responses".

Virtual Fitness Challenge



GOBBURI MADHU TEJA EDM19B005



YASH KUMAR SAHU CED19I039



SHRADDHA SHUKLA EVD18I0123

10-30 September, 2020 Fit India Freedom Run 2020

As per the Ministry of Youth Affairs and Sports, Government of India, under the scheme of FIT INDIA the Fit India Freedom Run was organised between 10th September 2020 to 30th September 2020. The students, scholars, staff and faculty of our institute participated in this event.







IIITDM - FIT INDIA

FREEDOM RUN

10TH SEPTEMBER TO 30TH SEPTEMBER 2020

FIT INDIA



#Run4India

E- CERTIFICATE TO ALL PARTICIPANTS

RUN TO CELEBRATE THE NATIONAL SPORTS DAY

RUN ANYWHERE - ANY TIME - ANY DISTANCE

RULES

IIITDM & FIT INDIA FREEDOM RUN IS A 21 DAYS EVENT STARTING ON 10TH SEPTEMBER 2020.

- RUN/WALK ANYWHERE & ANYTIME • RUN/WALK A ROUTE OF YOUR CHOICE
- RUN/WALK A TIME THAT SUITS YOU • BREAK UP YOUR RUNS/WALKS
- RUN/WALK YOUR OWN RACE AT YOUR OWN PACE

•SHARE YOUR PHOTOS / VIDEOS AT SOCIAL MEDIA TO MOTIVATE OTHERS TO PARTICIPATE AND SEND THE DETAILS TO SPORTS@IIITDM.AC.IN

NOTE: PARTICIPANT'S SAFETY AND WELL BEING IS EQUALLY IMPORTANT TO US, PARTICIPANTS ARE REQUESTED TO ENSURE ALL SAFETY AND SOCIAL DISTANCING NORMS AS PER GOVT. OF INDIA NORMS.

ORGANIZED BY:
 INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING
 (IIITDM) KANCHI PURAM, MELAKOTTAIYUR POST, CHENNAI - 600127.
 (AN INSTITUTE OF NATIONAL IMPORTANCE, UNDER MINISTRY OF EDUCATION, GOVERNMENT OF INDIA)

5 September, 2020 Teacher's Day – Sports Events



**IIITDM Kancheepuram
Chennai - 127**

Teacher's Day Celebration 2020

Games	General Instruction
<ul style="list-style-type: none">❖ Badminton Men Singles❖ Badminton Women Singles❖ Carrom Men Singles❖ Carrom Women Singles❖ Table-Tennis Men Singles❖ Table-Tennis Women Singles	<ul style="list-style-type: none">> Matches will be conducted in Arjuna Sports complex.> Schedule will be informed on 5th September 2020 by 6.00 PM> Matches will be cancelled, if there will be less than 4 participants in particular category.> COVID-19 safety measures will be followed strictly.

Organized By
Indian Institute of Information Technology Design and Manufacturing
(IIITDM) Kancheepuram, Melakottaiyur, Post, Chennai - 600127.
(An Institute of National Importance, Under Ministry of Education, Government of India)





2-6 December 2020, Fit India Prabhat Pheri (Morning Walk / Jog)



Early morning walk

December 3, 05:00 - 06:30

97 9,005

What a workout. You deserve a break!

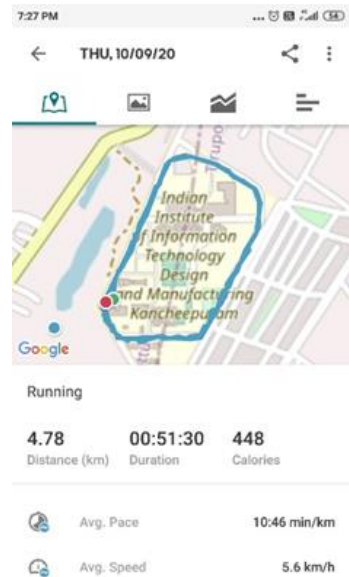
Active time 1h 30m 00s

Distance 9.05 km

Calories 524

Move Minutes 90

Pace 9:55/km (average)



IITDM Kancheepuram
Presents

FIT INDIA PRABHATPHERI 2020 Morning Walk

2nd Dec to 6th Dec 2020

Walk for Fit and Healthy India
Faculty, Staff, Research Scholars and Family Members are Welcome

Venue: Arjuna Sports Complex
Reporting Time: 6.15 AM
Dates: 01/12/2020 to 06/12/2020

REGISTER BY CONTACTING sports@iitdm.ac.in
OR 9176182021

Those who couldn't participate in person can send tracking details of your walk with photos by using any one step counter / Tracker

Government of India
Ministry of Youth Affairs and Sports

Certificate

-OF RECOGNITION-

PRESENTED TO

IITDM KANCHEEPURAM, CHENNAI 127

FOR SUCCESSFULLY ORGANISING
FIT INDIA PRABHATPHERI-2020
FIT INDIA DECEMBER CAMPAIGN 2020 | 2nd - 6th December

26 January 2021, Republic Day

The 72nd Republic Day was celebrated on Tuesday, 26th January 2021 in front of the Administration Building and the Director hoisted the National Flag at 8.00 a.m. and took the salute. The members of the Faculty, Staff and Students along with their families attended the event.





21 February 2021, Matribhasha Diwas

"Matribhasha Diwas" is celebrated this year jointly by the Ministry of Education and Ministry of Culture through virtual mode from 21.02.2021 to 23.02.2021 to promote and preserve Mother Language. The inaugural function of the Matribhasha Diwas will be inaugurated by the Hon'ble Vice President of India on 21.02.2021 at 11.00 a.m., in which Hon'ble Education Minister, Minister of State for Culture and minister of State for Education will participate as Guest of Honors.



24 March 2021, World Water Day and Jal Shakti Abhiyan

With respect to instructions received from the Ministry regarding water conservation, tree plantation, water harvesting etc. Everyone were requested to participate in watering the tree abhiyan today at 5.00 pm. Students/faculty/staff assembled at the Admin building for watering the trees/plants in the Institute. Prof. Banshidhar Majhi, Director IIITDM Kancheepuram, had lead the movement. Those students who were not staying in the Institute at present had watered the plants at home or neighborhood. Institute Administration has requested to make arrangements for buckets/water pipes and water for successful implementation of the same.



X. Infrastructure

Major Infrastructure Facilities



Admin Block

Overall Spec. : G+3 Floors
 Plinth area : 4775 sq. m
 Senate block : 132 seating capacity



Academic Block

Overall Spec. : G+4 Floors
 Plinth Area : 10408 sq. m
 Occupancy : labs and lecture halls



Laboratory Block

Overall Spec. : G+6
 Plinth Area : 36166 sq. m



Boys Hostel (Aswatha)

Overall Spec. : G+14 Floors
 Plinth area : 18,297 sq. m
 Total No. of beds : 724



Boys Hostel (Ashoka)

Overall Spec. : G+14 Floors
 Plinth Area : 12,522 sq. m
 Total number of beds : 386



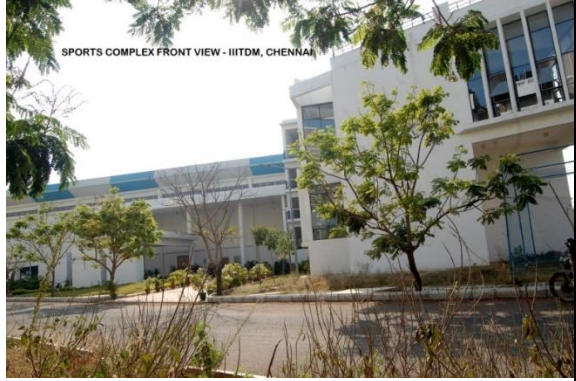
Dining Block (Akshaya)

Overall Spec. : G+3 Floors
 Plinth Area : 3784 sq. m
 Seating Capacity : 512



Cafeteria

Overall Spec. : Single Storied
 Plinth Area : 385 sqm



Indoor Sports Arjuna Complex

Overall Spec. : G+1 Floor
 Plinth Area : 2,828 sq. m



Girls Hostel (Jasmine)

Overall Spec. : G+14 Floors
 Plinth Area : 13,060 sq. m



Faculty Quarters

Overall Spec. : Silt+10 Floors
 Number of Houses : 80 (20-3BHK; 60-2BHK)
 Plinth Area : 14,197 sq. m



Knowledge Plaza



Senate Hall