



IIITDM Kancheepuram
presents

MARG DARSHAN

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RESEARCH SCHOLARS' DAY



IIITDM celebrated RESEARCH SCHOLARS' DAY on Thursday, April 19, 2018 for the first time in our Institute as proposed by Director Prof. Banshidhar Majhi. The day started with a plenary talk by Prof. S. Karmalkar from IIT Madras who shared many research experiences of his own and others to motivate the research scholars of IIITDM.



The talk was followed by a poster session in old library wherein all scholars, who have completed at least two years, displayed their research work through posters. Posters presented by the scholars were evaluated by an expert committee and the best poster award was given to Mr. D.S.Chandu. Poster session was open in the afternoon for the whole institute community so that all interested students could interact with the research scholars. On the sidelines of this event, Mr. A.K. Hemnath, PhD scholar, displayed coin-collections from many countries spanning different periods to make the audience have lighter moments.

Dr. Saurabh Saxena, from IIT Madras delivered a lecture at the valedictory function on "Recent Trends in IC Design and Applications". The coordinator of the Research Scholars Day, Dr. Binsu Kailath, delivered vote of thanks at the end of the event.

WORKSHOP ON DIGITAL IMAGE PROCESSING AND APPLICATIONS



Centre for Computer Vision and Machine Learning (CVML), IIITDM Kancheepuram, organized a six-day Workshop on Digital Image Processing and Applications during June 4-9, 2018. The workshop focused on the fundamentals of Digital Image Processing. Not only theoretical aspects, but also practical sessions were carried out using MATLAB which helped the participants gain knowledge to solve real world problems that involve image or video as input. About 25 participants took part in the workshop which included faculty, research scholars, and undergraduates of different colleges from all over India. Topics covered included Image Operations, Image Transform, Image Enhancement, Image Segmentation, Color Image Processing, Object Detection, Image Restoration, Object Tracking, and Biometrics. Sessions were handled by Prof. Banshidhar Majhi, Dr. Masilamani V, Dr. T.S. Hari Narayanan, Dr. Noor Mahammad SK and Dr. J. Umarani.



WORKSHOPS

A five-day workshop on Data Analytics and Machine Learning (DaMI 2018) was conducted by Dr. Sivaselvan and Dr. Sadagopan during June 18-22, 2018 at our institute. About 75 participants, including 15 internal participants, attended the program and benefited.

Besides institute speakers, several external speakers delivered lectures in the workshop that included Mr. Sudarsun, CEO, Buddihealth, Prof R.S. Milton, SSN College of Engineering, Prof S. Mathew from IIT Madras.

A five-day workshop on "High Performance VLSI Architectures for Digital Signal Processing" was conducted by Dr. Noor Mohammad Sk during April 30-May 4, 2018.

A five-day workshop on "Research Challenges and Opportunities in Network System Design" was conducted by Dr. Noor Mohammad Sk during May 7-11, 2018.

A five-day workshop on "High Performance Packet Processing Algorithms and Architectures" was conducted by Dr. Noor Mohammad Sk during May 14-18, 2018.



RESEARCH

- Mr. Chandu D S, guided by Dr. S. Karthikeyan, presented his first seminar titled “Investigations on the Novel Methods in the Design of Circularly Polarized Printed Antennas” on April 2, 2018
- Mr. Rusan Kumar Barik, guided by Dr. S. Karthikeyan, presented his first seminar titled “Design and Implementation of wideband and Multi-Band RF/Microwave Passive Components” on April 2, 2018
- Mr. Deepakkumar R, guided by Dr. S. Jayavel, defended his Ph D thesis titled “Computational Study of Vortex Shedding Control for Flow Past Circular Cylinder” on April 5, 2018
- Mr. Chandu D S, guided by Dr. S. Karthikeyan, presented his second seminar titled “Design and Implementation of wideband and Multi-Band RF/Microwave Passive Components” on April 25, 2018
- Mr. Rusan Kumar Barik, guided by Dr. S. Karthikeyan, presented his second seminar titled “Design and Implementation of wideband and Multi-Band RF/Microwave Passive Components” on April 25, 2018
- Mr. C. Gurunathan, guided by Dr. S. Jayavel, presented his first seminar titled “Studies on Polymer Composite with selective Networked-reinforcement” on June 13, 2018
- Mr. C. Gurunathan, guided by Dr. S. Jayavel, presented his second seminar titled “Studies on Polymer Composite with selective Networked-reinforcement” on June 15, 2018
- Mr. Ashish Kumar, guided by Dr. V. Naveen Kumar, presented his first seminar titled “Simultaneous non-destructive sensing of current and temperature through an all-fiber interferometric methods” on June 22, 2018
- Mr. Ashish Kumar, guided by Dr. V. Naveen Kumar, presented his second seminar titled “Irregular Fringe Pattern of an interferometer and its sensing capabilities” on June 25, 2018
- Mr. Manimegalai K, guided by Dr. Tapas Sil, presented her first seminar titled “Anharmonic Oscillators: Part I” on June 26, 2018
- Naveen Kumar, Ashish Kumar, “Investigation on the impact of irregular fringe patterns of a single-fiber Mach-Zehnder interferometer on its sensing capabilities”, Optical Fiber Technology, 43, 131–136, 2018
- Ashish Kumar, Naveen Kumar, “Simultaneous Measurement of Current and Temperature by Using an All-Fiber Interferometric Cost-Effective and Non-Destructive Sensing Scheme”, Optik, 171, 1-8, 2018

MaDeIT

On April 28, 2018, MaDeIT organized an Incubatee Founder Meet to facilitate interaction between the founders and IIITDM faculty members. Dr Sudhir Varadarajan welcomed the participants and briefed on the status of MaDeIT, existing incubatee companies and the upcoming events. Founders of Equad Engg, ThoughtBit, Inoventric, and SSD Controls provided an overview of their products that they are incubating with MaDeIT.



MaDeIT co-sponsored a hackathon on Medical Technologies during May 11-13, 2018. The hackathon was organized by the Healthcare Technology Incubation Centre, IIT Madras in the IITM Research Park. Dr Sudhir Varadarajan participated in a panel discussion during the inauguration of the event. About forty teams participated in the event. Four of these teams were from IIITDM Kancheepuram and two of them came in the top

ten. It was heartening to see IIITDM team – NicoStop – emerging as #1. NicoStop was conceptualized and developed as part of the IIITDM design curriculum and mentored by experts brought in by MaDeIT at various stages of its evolution. The winning team got an opportunity to pre-incubate at HTIC, IITM with a funding of Rs 20,000. The team was also partly sponsored by MaDeIT to attend the AICTE Indo-Canadian contest in New Delhi in late June 2018.

MaDeIT started its summer sandbox program on May 14, 2018. The program is aimed at supporting pre-incubation activity among students and accelerating the work of existing incubatee companies. About 35 students from IIITDM have participated in this program out of which two teams (8 members) are exploring pre-incubation activities.

MaDeIT had its fourth meeting on June 2, 2018, with the Strategic Advisory Board to review its operations and strategy for the future. The meeting was presided over by Prof. Banshidhar Majhi, Chairman of MaDeIT, and was attended by most of the Advisory Board Members. The Advisory Board members were given a demonstration of the prototypes developed by CUEDIO and Cavintek, followed by an interaction between them and incubatee founders over lunch.



MaDeIT participated in the well-known ACMEE 2018 industry exhibition held in Chennai Trade Centre during June 21-25, 2018. MaDeIT put up a stall and showcased the work of its incubatee companies and its design and incubation services. The stall was manned by the MaDeIT staff, digital marketing interns from IIITDM and the incubatee companies. The stall attracted good footfall and leads for MaDeIT.



On June 29, 2018, MaDeIT organized an exclusive workshop for women interested in entrepreneurship. The event was sponsored by the Entrepreneurship Development and Innovation Institute (EDII), Government of Tamil Nadu. The workshop was inaugurated by Dr. Kalaivani, Joint Director, EDII. It included a special session on what innovators can learn from children by Mr. Jinan Kodapully, and a session on context awareness and Giga-mapping by Dr. Sudhir Varadarajan. A panel discussion took place involving young women entrepreneurs Ms. Neela, Dr. Rachna, Ms. Vaishnavi, Prof. Thillai Rajan from IIT Madras and Ms. Shajeevana, Additional Director, EDII. About 55 women participated in the event. At the end of the workshop, about 30 signed up for attending a follow-up workshop in August.



MaDeIT organized an exclusive workshop on June 30, 2018, for incubatee companies, IIITDM faculty and participants of the summer sandbox program. It was titled “Child is the father of man: What innovators can learn from children”. The workshop provided a fresh perspective on learning, playfulness and improvisation in children and the implications for innovation. The workshop was facilitated by well-known design thinker Mr. Jinan Kodapully from Existential Knowledge Foundation.

Dr. Sudhir Varadarajan published two articles in the Hindu (Edge column) to raise awareness about IIITDM Kancheepuram in the media. One article entitled “Become an agent of Change” appeared on May 26, 2018, and the second article entitled “Thriving in a state of flux” appeared on June 30, 2018 which can be accessed at <https://www.thehindu.com/profile/author/Sudhir-Varadarajan-20229/>

EK BHARAT SHRESTHA BHARAT

As part of Ek Bharat Shrestha Bharat, the institute conducted a pencil drawing contest on Tuesday, April 10, 2018. All the winners who have participated in various Ek Bharat Shrestha Bharat events were given prizes on May 1, 2018.

TEACHING AND LEARNING CENTRE



TLC organized a one-month fresh faculty Induction Training Program (ITP) for new faculty of universities, engineering colleges and polytechnics from around the country, during May 7-31, 2018. Around 60 faculty including from IIITDM attended the workshop. Resource persons included IIITDM faculty, distinguished faculty and retired faculty of IITs and other institutes, central funding agencies, entrepreneurs, academic consultants, and so on. The TLC staff conducted hands-on sessions for the workshop participants.



TLC staff and Coordinator Dr S.R.Pandian conducted a one-day hands-on workshop on Kinetic Art for the students and faculty of the Faculty of Visual Arts, Banaras Hindu University, Varanasi. The workshop introduced the participants to the potential of open source hardware and software, 3D CAD, CNC machining and 3D printing for visual artists, e.g., kinetic/mechatronic art, digital fabrication and sculpture, animation and graphics, and so on. The event was sponsored by the Design Innovation Centre of BHU.



As part of the Capgemini-SRF-TLC school adoption program, 60 teachers and students from the eight government high schools in Chennai attended a three-day hands-on workshop in TLC. The topics covered included open source hardware (Arduino microcontroller and Raspberry Pi microcomputer), and CNC machining.



TLC has been collaborating with SRF Foundation and Capgemini on setting up Tinkering Labs, called InnoSTE(A)M Labs in eight government high schools in Chennai and five government high schools in Bengaluru. The three-year project is also being replicated in about 30 government high schools in nine other cities of India (Trichy, Salem, Mumbai, Pune, Kolkata, Hyderabad). As part of the collaboration, a three-day hands-on workshop for the Bengaluru resource persons was held in Bengaluru by TLC staff.

TLC staff and Dr S.R. Pandian conducted a three-day hands-on workshop on Build Your Own (BYO) low-cost laboratory equipment for undergraduate and PG/PhD students of engineering and other branches (such as pharmacology) of IIT BHU and nearby institutions. Laboratory staff also participated. The participants were introduced to open source hardware and software, and fabrication of low-cost Do It Yourself (DIY) manufacturing technology education equipment such as CNC mill and lathe, printed circuit board (CB) machine, laser engraver, vinyl cutter, acrylic bender and foam cutter. The event was sponsored by the Teaching Learning Centre of IIT BHU.



YOGA DAY

International Yoga Day was celebrated by faculty, staff and students of IIITDM Kancheepuram on June 21, 2018. The Protocol video distributed by the Ministry of AYUSH was played for the benefit of the institute fraternity at the venue. Dr. Naveen Kumar, Dean - Student affairs, welcomed the gathering. Director Prof. Banshidhar Majhi delivered the inaugural address mentioning the importance of asanas and fitness which are vital to lead a better and healthy life.

Yoga Demonstration was conducted for the benefit of students, staff and faculty members of the institute. The session was coordinated by Mr. A. Selvam, Research Scholar from Tamil Nadu Physical Education and Sports University and institute Physical Training Instructor. They demonstrated various asanas ranging from Padmasana, Vajrasana, Bhujangasana, sarvangasana, etc. For each asana that was demonstrated an interactive description was given and the audience also joined in performing the asanas under the guidance of the instructors. The session was well attended and well received.

A Handbook of Basic Asanas prepared by Mr. P. Alaguraj, Physical Training Instructor of our institute, was released by the Director and circulated amongst the institute fraternity. Protocol video and booklet circulated by the Ministry of Ayush and the in-house prepared Handbook of Asanas were circulated in the soft format with the institute fraternity for their sustained practice and benefit.



GUEST LECTURES

Prof. Atul Sharma from IIT Bombay delivered a guest lecture on April 5, 2018 on "CFD - A more physical approach" on invitation by Dr. S. Jayavel.

Mr. K. R. A. Nair, Former Executive Director, Development, LUCAS TVS, delivered a guest lecture on "Electric Vehicle Eco system - Opportunities for Innovation" on April 11, 2018, on invitation by Dr. K. Selvajothi.

Captain S. K. Thakur delivered a talk on "Funding opportunities in DRDO" on May 11, 2018 on invitation by Dr. S. R. Pandian.

Prof. D. Sriram Kumar from NIT Tiruchy delivered a lecture on "Li - Fi and its Applications - A Survey" on May 16, 2018 on invitation by Dr. K. Selvajothi.

Prof. Kannan Moudgalya, TLC Coordinator and Coordinator of Spoken Tutorials Project at IIT Bombay, delivered a lecture on "The Spoken Tutorials software modules and open source software" on May 18, 2018 on invitation by Dr. S. R. Pandian.

Prof. Kamakoti from IIIT Madras delivered a talk on "Information Security" on May 22, 2018 on invitation by Dr. V. Masilamani.

Dr. Swaraj Paul from Visva-Bharati University, Santiniketan, West Bengal, delivered a lecture on "Solutions of Singular Integral Equations Based on Multi-resolution Analysis" on May 31, 2018 on invitation by Dr. Tapas Sil.

ETHNIC FOOD DAY



As a part of Ethnic Food Day, faculties and staff members brought one home-prepared vegetarian food (sweets and snacks) on May 31, 2018 and shared them with others. The event was held at the institute workshop hall. The faculty, staff and scholars tasted a variety of home food and had lighter moments amidst their busy schedule.

STUDENT ACHIEVEMENTS

Akarsh Kale, Vivek Yadav, and Adithyan TR secured 4th position in National Level Open Challenge Competition: “Solution to Problem” – DEFEXPO 18 for their innovative solution for ejection mechanisms in helicopters.

Our institute students, Dharmesh Harsha, Aishwarya Rajasekaran, Viraj Sonatkar, Vedant Bassi, Harish Manikandhan along with Dr. K. V. Eswaramoorthy participated in MedTech hackathon conducted by HTIC, IITM Research Park on May 11, 2018 at IITM Research Park on “Affordable and Scalable Healthcare”. The team bagged one among the top 5 teams selected out of 41 teams. The product designed and developed by the team was 'NicoStop'. They have been awarded a seed grant of 20000 INR for further developing the product. Also, they are invited to pre-incubate in the Healthcare Technology Innovation Centre.



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