



ICT CHRONICLE

Annual Newsletter of the Department of Information and Communication Technology, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal-576104

Vision: "Excellence in Information and Communication Technology education through continuous learning and teamwork"

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MESSAGE FROM HOD

I am elated and ecstatic to announce the second edition of "ICT Chronicle", an annual newsletter of the Department of Information & Communication Technology, MIT, Manipal. It gives me a great pleasure to share with you, the progress being made by the Department in research, placement and teaching learning activities. In the era of engineering and technology, this newsletter will motivate teachers and students to share their creativity and ideas with the community and will help in their overall development. The immense effort put in by the ICT Chronicle team in bringing out this edition is highly commendable. I congratulate and thank all the faculty, supporting staff and students for putting in their best efforts to make the Department flourish and reach great heights.



CONFERENCE

IEEE DISCOVER 2019

Third IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (2019 DISCOVER) was organized IEEE Mangalore subsection and hosted by the department along with other departments on 11th and 12th August, 2019. Dr. Manohara Pai M. M. was the General chair and Dr. Radhika M Pai and Dr. Ajitha Shenoy were the organizing chairs of the conference, from the department. The conference covered diverse fields such as Distributed Computing, Software Engineering, VLSI, Verification, Communication Engineering, Electrical and Electronic Circuits, Robotics and Healthcare. Series of keynote presentations, technical papers and poster presentations were planned to foster a vigorous exchange of research findings and ideas among the participants. Prof. Navakanta Bhat, Professor, IISc, Bangalore delivered a talk on "Sensor Diversity and Scaling: New Paradigm for Emerging Electronics", Prof. Arkady Zaslavsky, Professor, Deakin University, Australia delivered a talk on "Bringing IoT and AI together to enable real-time awareness" and Prof Sheldon S. Williamson from the University of Ontario-Institute of Technology, Canada spoke on "Electric Energy Storage Systems and Smart Charging Infrastructures for Transportation Electrification and Autonomous, E-mobility". The conference received 190 papers from researchers in India, China and Europe and best 30 papers were selected for presentation during the conference.



CENTERS

Various Centers are established by MAHE. The centers coordinated by the department are:

- * Center for Cyber Security - Coordinated by Dr. Balachandra
- * Center for Artificial and Machine Intelligence - Coordinated by Dr. Sanjay Singh





WORKSHOPS



P.I.N.G 2019

A two-day workshop with the theme Blockchain Technology and its Applications was organized on 22nd and 23rd February, 2019. Mr. Sudhir Mahale, Lead Infrastructure Architect from IBM, Mr. Mayur Gandhi, Lead Analytics Solution Architect and a Data Scientist with IBM GTS Labs, Mr. Gautam U Bhat, Cloud Solution Architect at IBM were the resource persons. They focused on blockchain technology, its application and hyperledger. They gave an insight on IBM blockchain solutions such as World Wire, TradeLens, Trusted Identity etc.

GUEST LECTURES/ SEMINARS

Guidelines on industrial demands



Two sessions were conducted by alumnus of our department, for students to convey the industrial demands on 25th and 26th July, 2019. In the first session, Ms. Santhosh Matha discussed various issues to balance the academics and industrial expectations. The second session was conducted by Ms. Rajalakshmi Kamath. She highlighted the technical and non-technical skills required for an engineer to meet the industry requirements.

Pre-Placement preparation

Ms. Kritika, an alumnus of our department, shared her experience of placement preparations and various projects that she has worked upon. She also conveyed the importance of knowing basics in every subject like algorithms, data structures, database and so on. The session was organized on 7th August, 2019.



Building Industry Ready Microservices

Mr. Vishal Kini, a Technology Strategist and a Full-Stack Developer at Mscrypts' Innovation Lab, discussed cloud-based applications with new-age technologies like React, Node.js, Python and Django. Mr. Karthik Gupta, a Technology Strategist and a Full-Stack Developer at mscrypts' Innovation Lab, gave an insight regarding the benefits of microservices for the industry. It was organized for the students on 30th August, 2019.

IBM pre placement workshop

A workshop for the students was organized by the department in collaboration with IBM. It was conducted on 13th, 19th and 26th August, 2019. On 13th Mr. Veeresh Bushetti, a Full stack application architect, gave insight regarding Java full stack development, and Mr. Avinash Chandra, an Application Architect, provided information on the recent mobile applications trends in the market. On 19th, Mr. Sudhanva and Mr. Muniyandi Perumal gave an insight regarding Micro service architecture. On 26th, Mr. Balasubramanian, Mr. Bala and Mr. Goldy Aloysious from IBM discussed next generation Software Defined Storage technologies, IT Operations Analytics (Predictive Analytics and Log Analytics), Microsoft platform (Active Directory, Exchange, Hyper-V) with a fair understanding of other IT infrastructure technologies like Networks, Storage, Security etc.





NOKIA Tech Talk Webinars

Two webinars “Machine Learning” and “Wireless Networks” respectively were organized by the department on 20th September, 2019. In the first, Ms. Suma Kandkur, Business Product Manager (Network & Subscriber analytics) provided an overview on machine learning, and how machine learning fits into data science. She elaborated the phases involved in solving ML problems, types of learning followed by a quiz and a Q&A session. In the second, Mr. Ravi Gangadhara, System Specification Engineer (Radio, Mobile Networks) provided an overview on basics of telecom network architecture-inheritance from the OSI model. He elaborated on evolution of telecom networks from 2G, 3G towards 4G and beyond. He also gave an overview on 4G network architecture and its components, interfaces, and protocols followed by Q&A session.



FACULTY ACHIEVEMENTS



Interaction with Outside World

Dr. Ramakrishna M. is currently working as a Post-Doctoral Research Associate at the Department of Computer Science, University of Bath, UK. His research work aims at design and development of 6-DoF VR Photography. This is funded by EPSRC-UKRI Innovation Fellowship.

Ph.D. Awardees

Mr. Ramakrishna M has been awarded doctoral degree by MAHE, Manipal, for his thesis titled “Scalable Video Adaptation using Media Aware Network Elements” under the guidance of Prof. Karunakar A K, Professor and Head, Dept. of Computer Applications, MIT, Manipal.



Mr. Krishna Prakasha has been awarded doctoral degree by MAHE, Manipal, for his thesis titled “Design and Implementation of an Efficient Wireless Public Key Infrastructure in M-Commerce” under the guidance of Prof. Balachandra, Professor and Head, Dept. of ICT, MIT, Manipal.

Sports

Dr. Manohara Pai M. M. and Team won Runners Up title in the Inter MAHE Staff badminton tournament above 45 doubles category in August, 2019 held at MIT Recreation Club Manipal.

Mr. Akshay M J was a part of the MIT Badminton team and won the 2nd International staff badminton tournament held at PES University, Bangalore in January, 2019.





Outstanding Contributor Award

Dr. Manohara Pai M M, has been conferred with “Outstanding Contributor Award” by Rotary Club, Manipal at Royal Christ School, Manipal - on Engineer’s Day 15th September, 2019, in recognition for his contribution and commitment to the development of Science and Technology and building scientific temper in the society.



App to Report Adverse Drug Reactions Launched

An app ADDRAI (Adverse Drug Reaction Reporting, Identification and Assessment) was developed by Mr. Akshay M. J. and team with the support of Department of Pharmacology, KMC, Kasturba Hospital Manipal. The app was launched on 23rd October, 2019 by Dr. H. S. Ballal, Pro Chancellor, MAHE and Dr. Poornima B. Baliga, Pro Vice Chancellor Health Sciences MAHE.

Faculty Participation in Cultural Activities

Yakshagana Prasanga “Jyothirmedha Vijaya” was performed on 28th January at SRS School Udupi and on 14th March, 2019 at Amphitheatre. Faculty from ICT department who showcased their extraordinary performances were Dr. Preetham Kumar, Dr. Santhosha Rao, Dr. Krishna Prakasha, Dr. Ramakrishna M, Mr. Santhosh Kamath, Mr. Raviraja Holla, Mr. Akshay K C and Ms. Smitha A.



Executive Committee Members 2019

Manohara Pai M M
CHAIR

Poornalatha G
SECRETARY

Publications

The faculty members have published around thirty five research papers in various Scopus indexed journals and also presented around eighteen papers in various international conferences. Students of the department have also contributed to publications.

STUDENT ACHIEVEMENTS

Participation in Swachh Bharat Abhiyan

Swachh Bharat Abhiyan was an initiative taken by the Government of India, in January, 2019 organized by Youth Hostels Association of India, where each student was encouraged to take up volunteering hours for the fulfillment of contributing back to the society. Sidharth Jindal, VII Semester B.Tech. (CCE) and his team cleaned lakes, streets and even educated kids about mental health. They also read stories at blind school and painted government funded orphanages.

Sidharth Jindal is also treasurer of MIT Student Council.





Full Time Ph.D. Awardees



Ms. Shreema Shetty has been awarded doctoral degree by MAHE, Manipal, for her thesis titled “Design and Development of algorithms for Routing and Application functionalities of Underwater Wireless sensor networks.” under the guidance of Dr. Radhika M Pai and Dr. Manohara Pai M M.



Mr. Sabu George has been awarded doctoral degree by MAHE, Manipal, for his thesis titled “Development of Deception Activity Detection Algorithms: Emotion and Facial Expression based Approach” under the guidance of Dr. Radhika M Pai and Dr. Manohara Pai M M.



Sports

Krithika M Pai, III Semester B.Tech. (CCE) and Avitha Shetty, III Semester B.Tech. (IT) won the RUNNERS-UP trophy in Shuttle Badminton Tournament in 'Revels Cup' conducted by MIT Manipal on 7th and 8th March, 2019 at Recreation Club, MIT, Manipal.

They also won the RUNNERS-UP trophy in the INTER-MAHE Shuttle Badminton tournament conducted by MAHE at MARENA, Mangalore held on 4th and 5th October, 2019.

Dhruv Bharat of VII Semester B.Tech. (CCE) represented MAHE Football team at the All India Inter University Football in South-Zone Tournament in 2018-2019. He is also a part of the MIT Manipal Football team. His team won the Gold Medal in Inter MAHE Football Tournament, Manipal Football League.



Aswath Jacob, III Semester B.Tech. (CCE) secured first place (MIT-A Team) in Inter-MAHE TT tournament held in KMC Mangalore on 10th September, 2019.

Ishan Trivedi, III Semester B.Tech. ((IT) represented MAHE in ‘All India Inter University Cross Country Competition 2019’ which was held at Moodbidri in October, 2019. He is the captain of the MIT Cross Country Team. He secured 5th rank in MAHE Intercollegiate Cross Country Competitions. His team was adjudged winners in the Men’s category. He is also the Joint Sports Secretary of MIT Student Council.





Wearable Device Hackathon

Ishan Trivedi III Semester B.Tech. (IT) and his team won “Wearable Device Hackathon” which was organized by KMC and Innovation Center, MAHE from 13th to 20th September, 2019.

Best Poster Awards

The following students presented posters and secured prizes in the poster presentation organized during the 2019 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics held at MIT Manipal on 11th and 12th of August, 2019.

1. Kushagra Jain, VII Semester B.Tech. (IT) secured the first position for the poster titled “24 Zone Temperature Profiler”.
2. Nuzha Sadaf, IV Semester M.Tech. (CNE) secured 2nd position for the poster titled “Detection of Fracture Types in Thoracolumbar Spine Injury Using Deep Learning”.
3. Krithika M Pai, III Semester B.Tech. (CCE) secured third position for the poster titled “Region Detection and Segmentation of Brain Haemorrhage using Algorithmic Approach of Image Processing”.

Internships in abroad universities

Mr Sushant Surendra Prabhu received scholarship for WISE-Workig Internships in Science and Engineering at GESIS Leibniz Institute for Social Sciences, Cologne, Germany through DAAD-Deutscher Akademischer Austauschdienst German Academic Exchange Service. He carried out a research project on “Evaluation of Graph Embedding Methods” during the internship from 13th May, 2019 to 17th July, 2019.



Ms. Swati Kanwal received scholarship for Mitacs Globalink Research Internship at University of Victoria, Victoria. As part of this internship she carried out a research project on “Natural Language Processing for Self-Healing Cities” for the duration of 12 weeks starting from October, 2019.

Other Achievements

- Dhruv R Naik, Shourya Jaiswal and Sahil Vora, VII Semester B.Tech. (CCE) secured 1st position in Flipkart GRID-Te[a]ch, Machine Learning Quiz organized by Flipkart during March, 2019.
- Sushant Kumar and Arshia Anand of VII Semester B.Tech (CCE) won Smart India Hackathon 2019 as part of the team “PY Society” conducted at MIT on 2nd and 3rd March, 2019.
- Smriti Singh, III Semester B.Tech. (IT) won the gold badge and was a semi-finalist in the Reliance Jio & Techgig’s Code Gladiators (Online Codeathon) 2019 in May-June, 2019.
- Ananya Gupta, VII Semester B.Tech. (CCE) and her team “Lone Tiger” participated in ProGeek Cup 2.0, a Project competition organized by GeeksforGeeks and secured special appreciation in 2019.
- Ms. Tanvi Anand was the chairperson of Manipal chapter of ACM-W, and she also held a session on “Search for Research”. She also got the prestigious GHCI scholarship to attend their conference.

