



# BITS AND BYTES

A half-yearly newsletter of the Department of Electronics and Communication Engineering  
Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal

Volume 1 | Issue 1

March 2019

## MESSAGE FROM DEPARTMENT CHAIR



It was a long cherished dream of the ECE department to have a newsletter of its own. This newsletter will bring to you the important 'Bits & Bytes' from the department which includes achievements by faculty members as well as students. I congratulate Prof. G. Subramanya Nayak, Mr. AnanthaKrishna T, and Mr. Shridul Sethi & his entire team for their initiative and bringing out this newsletter.

### Principal Editors

Dr G. Subramanya Nayak  
Mr. AnanthaKrishna T

### Editor In-Chief

Mr. Shridul Sethi

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Mr. Samyak Jain  
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Mr. Shivank Chandra  
Mr. G Khushwant Reddy

## DEPARTMENT EVENTS

### EEG SIGNAL PROCESSING WORKSHOP

One day workshop on "EEG Signal Processing" was conducted on March 3rd, 2018. This workshop covered the processing and analysis of biomedical signals to ascertain the pathophysiological condition of human beings, with a focus on EEG signals and brain behaviour.



### DESIGN AND SIMULATION OF NETWORK PROTOCOLS USING QUALNET AND IOT APPLICATIONS

The main goal of this workshop was to bring together networking researchers from both academia and industry, to discuss recent advances, to identify future directions in network simulation, and to foster interdisciplinary collaborative research in this area.



### BUILDING SMALL OFFICE NETWORKS WORKSHOP

A workshop on how to build small office networks incorporating basic features like switching, routing, IP address provisioning, Domain name services etc

### GUEST LECTURES

- Prof. Guru Subramanyam from University of Dayton spoke on the pros of "3+2 program" and semester abroad program and the value it adds to student learning.
- Dr. P V Ananda Mohan, IEEE fellow, Technology Advisor spoke on the topic "Recent trends in analogue, Digital and Mixed Signal Design" on 11<sup>th</sup> August 2018

### FARE THEE WELL



Dr. Prabhakara Nayak, Professor, retired on 31<sup>st</sup> Oct 2018. He served the department and the institution for more than 35 years. He was Head of the department during 2011-14. He has published many papers in indexed journals and conferences.



# FACULTY ACHIEVEMENTS



## PHD AWARDEE

Dr. Ravilla Dilli, was awarded a Ph.D in "Enhancing the Security Features of Physical Distance Based Adaptive Hybrid Routing and Power Saving Techniques for MANET's" on October 2018 at Jawaharlal Nehru Technological University Hyderabad.

## FACULTY PUBLICATIONS

- Dr. M Sathish Kumar authored a book 'Digital Communication' which was published by PHI Learning.
- Dr. Sampath Kumar, Dr. Sumana M, and Dr. Hareesh K S have co-authored a chapter on cryptography and data mining in the book "Security and Privacy Management Techniques and Protocols" .
- Dr. Vinoth R. has published a book chapter titled "Steady and Transient Flow CFD Simulations in an Aorta Model of Normal and Aortic Aneurysm Subjects" in Lecture Notes in Electrical Engineering, Springer Nature.
- Dr. Anitha H has received fund for a project titled "Design and development of an image guided intervention system for pedicle screw insertion during spine surgery" from Dept. of Science & Technology, Govt. of India in August 2018.

- The faculty members have published around forty research papers in various Scopus indexed journals and also presented papers in various international conferences.
- Dr. D.V. Kamath worked as a member of the organizing committee for the 4th International Conference on Recent Challenges in Engineering & Technology (ICRCET-18).
- Dr. Vinod Kumar Joshi, has served as a scientific expert in the evaluation process of generic projects submitted to French National Research Agency (ANR), France in 2018.
- Dr. G. Subramanya Nayak has carried out a collaborative project in association with department of Biophysics, School of Life Sciences, Manipal and department of Inorganic and Physical Chemistry, Indian Institute of Science, Bengaluru during August 2018.
- Mr. C. Shivananda Reddy had been to Toshiba Software Pvt. Ltd, Bangalore as part of Toshiba-MIT Connect Program for a period of 3 months, where he worked for SSD Division and was assigned to implement loss less compression to do SSD System data commit with compressed snapshot.



Dr. Ujjwal Verma was awarded the ISCA Young Scientist Award for the year 2017-2018 by the Indian Science Congress Association for his contributions in the field of Information and Communication Science and Technology.

# STUDENT ACHIEVEMENTS

Ikshwaak G, N Avinash, Venkat Raja P, Hitesh B K and Manmadha K from ECE department, members of MIT Men's hockey team, bagged the Gold at MAHE Inter Collegiate Hockey Tournament held from 25-26<sup>th</sup> February, 2019.



Manideep Cherukur, Kisalaya Aakash and Mohi- Members of Formula Manipal, bagged 3<sup>rd</sup> place overall in the Electric Teams in India and 1<sup>st</sup> prize for both acceleration event and business presentation under combustion vehicle held at Formula Bharat 2019 held at Coimbatore, India. They also secured 3<sup>rd</sup> place in Formula Student Electric Vehicle Concept Challenge held at Bangalore.

Manya Singh, a 2<sup>nd</sup> year ECE student, secured 3<sup>rd</sup> position in the western vocal (Solo) event of Utsav 2019.



Jason Peter Andrews, was awarded the 1<sup>st</sup> Position Winner at the "National Level Machine Learning and Artificial Intelligence Championship" at Tech Vriddhi 2019 in association with the Entrepreneurship Cell, IIT Kharagpur and organized by Technospecies Global Solution.

Eeshan Upadhyay, a 3<sup>rd</sup> year ECE student was the delegate from MAHE for INVENT-2018 in Indonesia. INVENT 2018 was an International Conference aimed at solving Urban and Rural public administration/health issues through the use of Social Entrepreneurship.



N Avinash - Member of MIT Handball team won gold at MAHE Inter Collegiate Handball Competition.

# DEPARTMENT CLUB ACTIVITIES

## IE E&C

### Faculty Advisor

Dr. G Subramanya Nayak

#### EVENTS CONDUCTED :-

1. Swachh Bharat Abhiyan- garbage clean-up drive, conducted on 3<sup>rd</sup> November, 2018.
2. Placement Talk on 10<sup>th</sup> November, 2018.
3. Python Workshop on 25<sup>th</sup> and 26<sup>th</sup> January, 2019.
4. Winter Project- from 27<sup>th</sup> January to 1<sup>st</sup> February, 2019.
5. Machine Learning Workshop- on 28<sup>th</sup> and 29<sup>th</sup> January, 2019.
6. Techweek from 30<sup>th</sup> January to 2<sup>nd</sup> February, 2019.

## ISTE (Indian Society For Technical Education)

### Faculty Advisor

Dr. Ujjwal Verma

#### EVENTS CONDUCTED :-

1. Webdev Workshop on 9<sup>th</sup> and 10<sup>th</sup> August, 2018.
2. Management Committee RECRUITMENTS on 16<sup>th</sup> and 17<sup>th</sup> August, 2018.
3. Working Committee RECRUITMENTS - from 14<sup>th</sup> to 17<sup>th</sup> September, 2018.
4. Alexa Dev Workshop on 20<sup>th</sup> and 21<sup>st</sup> October, 2018.
5. Swachh Bharat Debate on 31<sup>st</sup> October, 2018.