#### Volume 5 | Issue 1 July - Dec 2022



# **BITS AND BYTES**

### **Biannual Newsletter**

Department of Electronics and Communication Engineering, MIT, MAHE

### March, 2023

### Message from the HOD



I took over as Head of the Department on 01st January 2023. I take this opportunity to thank my predecessor, Dr. G. Subramanya Nayak for his dedication and passion with which he took the department to greater heights. Under his leadership, the department UG curriculum has undergone revision and also program received accreditation for 03 years from NBA. Last year, the department has also established collaborations with several industries.

It's a matter of immense pleasure and fulfilment that the department of Electronics and Communication Engineering has come up with Volume 5, issue 1 of the newsletter for the year 2023. I believe that this issue of the newsletter will succeed in showcasing the activities and

achievements of the students, staff and faculty members. With a long and worthwhile history of accomplishment in education behind us, our ECE community continues to move forward, together with self-reliance, pride and passion. I congratulate the editorial team and all the members of the department of ECE.

### **Department Activities**

#### **NBA Accreditation**

National Board of Accreditation (NBA) team has visited the department from 16th to 18th of September, 2022 for the accreditation of the UG course. Department has been successfully accredited for the period of 3 years (2022-25)

#### **Academic Audit**

The department has undergone an academic audit for the UG program by Dr Puttamadappa C, Professor in ECE and Registrar, Dayananda Sagar University, Bengaluru on 4th and 5th November 2022.

Academic audits for PG programs (Both DEC and Microelectronics) have been carried out by Dr Ramesh Kini M, Associate Professor, Department of ECE, National Institute of Technology Karnataka (NITK), Surathkal on 29th of October 2022.

**Dr. Himanshu Tagra**, an alumnus of MIT (1996, E&C) has been appointed as Adjunct Faculty, Department of ECE. We will be able to take benefit from his expertise in :

Teaching Learning, Research, student related and for other academic activities.

He had an interactive session with faculty members and research scholars on 21st December 2022.

#### **Technical Publications**

Faculty members and students of the department have published **34 journal papers** in various reputed Scopusindexed journals during July and December 2022. Also, there are **12 conference paper** presentations and publications by the department faculty and students in the duration.

#### Felicitation



The office staff of the department felicitated Dr. G Subramanya Nayak on the 31st of December for completion of his tenure as the Head of the Department.

#### **New Faculty**

**Dr. Bhavanari Mallikarjun** has joined the department in August 2022 as research faculty. He has received his Ph. D from National Central University, Taiwan for the thesis entitled "Efficient Electrocatalytic Electrodes for Water Dissociation." His specialization include thinfilms, nano materials, electrochemical devices, renewable energy and hydrogen energy.

#### PhD Supervision

The following faculty members have been recognised as PhD supervisors/co-supervisors by MAHE.

**Dr Sudheesh P.G**, as PhD Supervisor in Wireless communication, UAV Communication, Application of ML in communication and reinforcement learning.

**Dr Gowtham Simha**, as PhD Supervisor in 5G communication and related topics.

**Dr Rajiv Mohan David**, as PhD Co-Supervisor in Wireless Communication, Antenna Engineering, Digital Signal, Image processing and its application in biomedical engineering and Managaement Information System.

**Dr Kanthi**, as PhD Supervisor in Embedded systems/Real time systems, Biomechanics, Biomedical Instrumentation, Communication Networks and Artificial Intelligence.

**Dr Bhaskar Awadhiya**, as PhD Supervisor in Steep slope devices, spintronics based devices and circuit, Low Power VLSI Design and Device modeling.

#### **Travel Grant**



**Ms. Ankita**, research scholar in Electronics and Communication Department has officially received the **travel grant** from the organizers IEEE-EPTC on second day of the 24th IEEE, EPTC conference, which was held in Singapore.

#### Condolences

Our department's former Professor and HOD, **Prof. Laxminarayana Maradithaya** took his last breath on 15th September 2022, 10.00 PM, at his daughter's residence in Bengaluru.

A condolence meeting took place on 19th September 2022.

**Dr. Rashmi Samanth**, Full-time Research Scholar under Dr.T.M.A. Pai fellowship, has successfully defended her Doctoral thesis entitled "**Design and Implementation of an Efficient ASIC Functional unit for Standalone Image Processing Applications**" for the award of PhD degree by the Manipal Academy of Higher Education, Manipal on 05th August 2022. The research work was guided by **Dr. G. Subramanya Nayak**, Professor, Department of Electronics and Communication Engineering, MIT, Manipal

#### **Alumni Interaction Series**



**Vinay Shenoy** (ECE), 1998-2002 batch, and presently The Director, Global Head of Strategy & Operations, Partner Development at YouTube, visited the department.



**Dr Pramod Kumar**, an alumnus of MIT (1994, E&C) visited the department on 20th September 2022.

### **Faculty Achievements**

#### **Meditation Ambassador**

**Dr. Mruthyunjaya H S**, Professor from the Electronics and Communication Department has been appointed as the **Meditation Ambassador** for MIT Manipal for the programme 'Har Ghar Dhyan' organized by AICTE on 28th December 2022.

#### **Best Paper Award**

Alla Srija, a Research Scholar under the guidance of Dr Vinod Kumar Joshi, Associate Professor-senior, received the "Best Paper Award" for the paper entitled "Voltage-Gated Spin-Orbit Torque Magnetic Tunnel Junction model analysis" (Paper ID: 187). She presented this paper at an IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits & Robotics (2022 IEEE DISCOVER) which was held during the 14th and 15th October 2022 at JNN College of Engineering, Shivamogga, Karnataka, India.

#### **PhD Awards**

#### **Awards and Accolades**

**Dr. Anitha H**, Professor from the ECE department has been recognized as a **screening committee member** in the Engineering Science stream of Science and Engineering Research Board (SERB) – State University Research Excellence (SURE) program – for the period 2022-2024.



She was felicitated by MAHE on National Technology Day, 2022 for receiving two funded projects worth INR 45,00,000 by DST Government of India.

#### **Research grant**

**Dr. Anitha H,** Professor in ECE, has received two financial grants during September and October 2022.

Navigation-assisted guidance for Pedicle Screw insertion in spine surgery Collaboration: Dept. Orthopedics, KMC Manipal Principal Investigator: Dr. Shyamsundar Bhat CO-Investigator: Dr. Anitha H. Amount: 28 laks, Period: 2022- 2024 (Awarded). Funding Agency: SERB, Scheme: FIRE, 07th September 2022.

Non-invasive 3D vector-modeling of depolarization sequences using magnetocardiography in cardiomyopathy study Collaboration with: Indira Gandhi Atomic Center for Research, Material Science Group, Kalpakkam Principal Investigator: Dr. Vikas R Bhat, CO-Investigator: Dr. Anitha H: 16 lakhs, Period: 2022-2025 (Awarded), Role CO-PI, Funding Agency: SERB, Scheme: CRG, 25th October 2022.

#### Alumni Achievement

**Mr. Ankur Goel** from the batch of 1997 ECE has recently joined HP India as **Senior Director** in Hybrid Work Solutions, India Market.

### **Student Achievements**

The MIT Team (Project SANAM) comprising of **Ayush Kumar** (CCE 2024), **Tushar Upadhyay** (ECE 2024), **Yellur Vishal Rao** (ECE 2024) have won 2nd Runner Up position with Rs. 30K Cash Prize in DVCon India 2022 Hackathon. The event was online conducted on 5th and 6th September 2022. Results announced on 6th October 2022.





**Reema** has secured the first place in state level Dasara C M Cup 2022 **Boxing Tournament** held at Mysore.

**Team MangO** consisting of Aganith Shanbhag, Yugesh Panta, Amol Jalan and Lakshya Narain stood as the the 1st runner up under the All India category in **TechFlame** organized by Mercedes Benz R&D.





**Kushagr Narayan** has secured the **First position** in the Ideation contest held as part of incandescent event held in KMC on 7th November 2022.

**George Paulson** along with his team **Manan Bhat**, **Shambhavi Sinha** and **Amrit R**, all third year students of ECE, participated and secured the **second position** in the **Manipal Biotech Hackathon 2022** conducted by Manipal-Government of Karnataka Bio incubator and Manipal School of Life Sciences, MAHE, Manipal.



**Lakshya Patel** participated and secured the **second position** in the World Robotics Championship organized by Technoxian. The challenge of the competition was to deliver the payload with pin-point accuracy.



George Paulson along with his team members Shyam Sundar Bharthi, Ajay Rajendra Kumar and Ryan Sojan participated in the Hackathon conducted by Daimler India Commercial Vehicles and secured 3rd position.

## **Club Activities**

### ISTE

- The club recruited a new set of Management Committee members and Working Committee members.
- The club organized events under the category Acumen during Techtatva'22 conducted from 13th to 15th October.

### IE-E&C

- The club conducted four events under the **Alacrity** category during Techtatva'22 conducted from 13th to 15th October consisting of: Foxhunt (To build a receiver and find the transmitter), Electrobuzz (To build and detect using a metal detector), Integrathon (Math Event) and Mazer Lazer (Solve a puzzle using lasers). All of the events had a great turnout and the participants had a great time.
- **Board Transfer**: The club bid adieu to the board of '21-'22 on the 6th of November and welcomed the board of '22-'23. The new board is extremely excited about it's tenure and they have a lot of events planned for the year.
- The club also conducted the yearly recruitment drive and welcomed the new set of Management Committee members and Working Committee members.







#### **Principal Editors**

Dr. Ramya S Dr. Ananthakrishna T Dr. G Subramanya Nayak Sarayu Marni

#### **Editorial Team**

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