ELECTRONICS & COMMUNICATION ENGINEERING

HoD'S DESK

I am extremely happy to note that our Department is launching newsletter SPEKTREM.

As we move further into this academic year, it's important to pause and acknowledge the collective achievements and hard work of our department. This year has been marked by significant growth, overcoming challenges, and celebrating numerous successes. Our students continue to shine in their academic endeavors, and our faculty members remain steadfast in fostering a dynamic and supportive learning environment.

Let's keep the momentum going, staying driven and focused on our shared goals. By collaborating and supporting one another, we can surpass even our highest expectations this academic year. Together, we have the potential to accomplish great things, and I'm excited to see what we can achieve. Thank you for your dedication and hard work, let's make this semester one to remember.

Prof. Renjitha G Nair
HoD ECE

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Association Activities (SPECTRA)

- **TWO DAYS WORKSHOP ON RASPBERRY PI WITH PYTHON PROGRAMMING**
  ORGANISED BY SPECTRA IN ASSOCIATION WITH CGPC & ISTE, MCET

As part of pursuing Academic Excellence, MCET conducts workshops for the Final Year students every year. This workshop aimed to introduce the unexplored potential of the Raspberry Pi-the hardware, software and its applications to the final year students of Department of Electronics & Communication Engineering and Department of Electrical & Electronics Engineering. The Workshop is designed to cater to all kinds of participants. During the course of the workshop interesting open problems are floated and the participants are encouraged to think out-of-box and come up with innovative solutions. Post workshop, each participant was ensured a sound exposure to Python programming and interfacing of Raspberry Pi.

The workshop explores *Raspberry Pi* using *Python programming. It* was organized by SPECTRA- Department of Electronics & Communication Association in coordination with CGPC and ISTE MCET chapter. This year it was held from 20th to 21st March 2024, from 8:30am to 3:30pm. 19 students participated in the workshop.

Inaugural ceremony commenced with the welcome address by Dr. Rakesh S., HOD, Department of ECE, MCET who presented the importance of the upcoming sessions. The sessions were handled by QIS Academy, Quest Innovative solutions, a leading *training* provider on *RaspberryPi* 3. The session started with an Introduction to Embedded systems, Python programming, Functions, Introduction to Raspberry Pi, configuration and winded up with IOT Application Development in myDevices Cayenne. The key take-away from the session was that the students were able to familiarize with latest trends in Embedded Systems & IOT. This *workshop* motivated the Students to explore *Raspberry Pi* using *Python programming.*

INDUSTRIAL VISIT

The Department of ECE organized a one day Industrial visit to KELTRON Karakulam. All Second, Third, Fourth year students of the department had a tremendous exposure to the manufacturing of UPS, used at Kudankulam Nuclear Power plant. The Power Electronics Group is a pivotal Strategic Business Unit within Keltron, with a legacy in the power electronics industry dating back to 1973. Keltron's focus has been on meeting the nation's power demands through bespoke design and fully in-house manufacturing of industrial-grade UPS systems (ranging from 5KVA to 1000KVA), chargers, rectifiers (up to 3000A), inverters, ACVRs, and Solar Power Conditioning Units. These products are crafted at Keltron's advanced research and production facility, boasting top certifications such as Seismic, EMI/EMC, IV&V, among others. The students incorporated deep insights in designing, manufacturing, testing, installing, commissioning, and maintaining UPSs, battery chargers, and related power equipment.

FDP/Workshop attended

1. **Prof. Nisha P.V.** attended AICTE Training and Learning Academy FDP on VLSI Design and Modelling at LBS Institute of Technology for women from 8/1/24 to 13/1/24.

2. **Prof Amritha Mary A.S.** attended AICTE Training and Learning (ATAL) Academy Faculty Development Program on VLSI Design and Modeling at LBS INSTITUTE OF TECHNOLOGY FOR WOMEN from 08/01/2024 to 13/01/2024.

3. **Prof Deepa D.** completed the three-day Faculty development program in Data Analytics for Engineers offered by ICT Academy of Kerala in association with Bishop Jerome Institute, Kollam from 27th Feb to 29th Feb 2024.

4. **Prof. Divya Natesan** attended 6-days ATAL FDP from LBS Institute of Technology on "VLSI MODELELING" in January 2024.

5. **Prof. Nisha P.V.** attended FDP on Counselling and Academic Mentoring Organized by Human Resource Development Centre ,HRDC of Kerala Technological University from 20/5/25 to 24/5/24.

6. **Prof. N Muhsina** attended online AICTE workshop on Incorporating Universal Human Values in Education from 17th – 21th June 2024.

Student activities/achievements

1. **Anand B.** of S4 ECE participated in Workshop in FPGA organized by Digital University Kerala from 1st march to 3rd March 2024.

2. **Arjun D. Kumar, Ashutosh Goel, Athul Raj R.S., Parvathy N. Pillai** presented the paper entitled "Fire Fighting Robot" in ACME on behalf of Electronics and Communication Engineering Dept. at Mohandas college of Engineering and Technology, Anad, Thiruvanathapuram.

3. **Akshay S.R., Abhinav S.B., Ameena S.** presented the paper entitled " Efficiency and Reliability in the Air: Design Principles of Next-Generation Emergency Delivery Drones- The DelDroid" in ACME on behalf of Electronics and Communication Engineering Dept. at Mohandas college of Engineering and Technology, Anad, Thiruvanathapuram.

4. **Devika D.S, Devika Nair, Gokul Nair B**. presented the paper entitled "Anti-theft Protection of Vehicle by GSM & GPS with Fingerprint Verification" in ACME on behalf of Electronics and Communication Engineering Dept. at Mohandas college of Engineering and Technology, Anad, Thiruvanathapuram.

5. **Farsana N.S.** of S2 ECE emerged as College topper for S1 KTU University Examination with a CGPA of 9.59.

6.   **Gowri Sitara** of S4 ECE emerged as College topper for S3 KTU university Examination with a SGPA of 9.45.

----Thank you----