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**DEPARTMENT OF  
ELECTRONICS AND COMMUNICATION ENGINEERING**

# ELECTRO MEDIA

Department News Letter

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### Vision

- To provide innovative teaching and learning methodologies for excelling in a high-value career, higher education and research to the students in the field of Electronics and Communication Engineering to meet the needs of the industry and to be a part of the advancing technological revolution.

### Mission

- To create engineers of high quality on par with international standards by providing excellent infrastructure and well qualified faculty.
- To enhance the collaborative and multidisciplinary activities to develop human and intellectual qualities.
- To provide technical expertise to carry out research and development.

### PROGRAM EDUCATIONAL OBJECTIVES

**PEO1:** Graduates will be able to comprehend Mathematics, Science, Engineering fundamentals, laboratory and work based experience to formulate and solve problems related to the domain and shall develop proficiency in computer based engineering and the use of computational tools.

**PEO2:** Graduates will be prepared to communicate and work team-based on the multidisciplinary projects practicing the ethics of their profession and have a great sense of social responsibility.

**PEO3:** Graduates will recognize the importance of lifelong learning to shine as experts either as entrepreneurs or as employees and thereby broadening their professional knowledge.





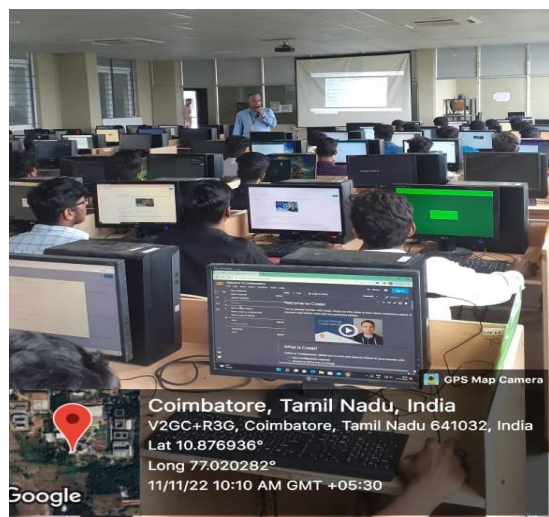
# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## WARM WELCOME TO

- ❖ Dr. Tamilnithi M joined as Assistant Professor on 1<sup>st</sup> July 2022.
- ❖ Mrs. Dharanika T joined as Assistant Professor on 15<sup>th</sup> July 2022.
- ❖ Ms. Tharani Priya S joined as Assistant Professor on 25<sup>th</sup> July 2022.
- ❖ Mrs. Lakshmi Priya P joined as Assistant Professor on 5<sup>th</sup> August 2022.

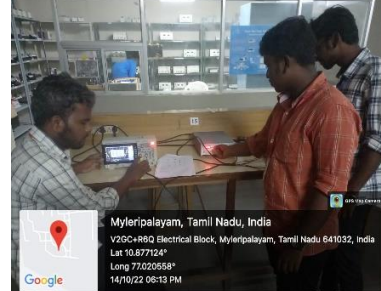
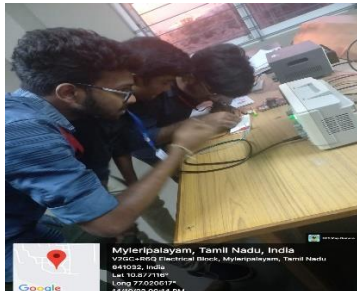
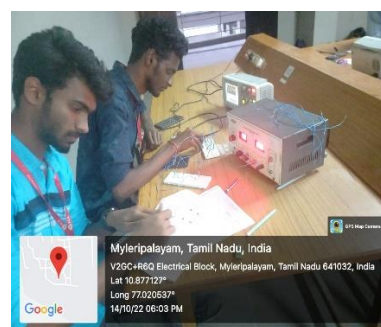
## DEPARTMENT ACTIVITIES

- ❖ Organised a One day National level workshop on "Industrial Robotics – MOTOSIM EG" on 10<sup>th</sup> October 2022.
- ❖ Organised a One day Seminar on "Role of Microwaves in Satellite Communication" on 23<sup>rd</sup> September 2022.
- ❖ Organised a One day Alumni Talk on "Oracle HCM Peoplesoft, Workday Human Capital Management" on 13<sup>th</sup> September 2022.
- ❖ Organised a One day Awareness Program on "Career Opportunities in Abroad" on 16<sup>th</sup> October 2022.
- ❖ Organised a one day national level workshop on "Development Of Embedded Based Applications Using Arduino" on 14<sup>th</sup> October 2022.
- ❖ Organised a Seminar on "Recent Trends in Artificial Intelligence" on 24<sup>th</sup> September 2022.
- ❖ Organised a One day national level workshop on "Digital Image Processing using MATLAB" on 15<sup>th</sup> September 2022.
- ❖ Organised a IEEE day Seminar on "Electronic Materials, Devices And Systems For Beyond 5G Systems" on 19<sup>th</sup> October 2022.
- ❖ Organised a One day National Level Workshop on "Python Programming for image Processing Techniques" on 11<sup>th</sup> November 2022.



Dr. Kannimuthu, Prof/CSE, delivering the lecture to the participants

- ❖ Organised a One day Guest Lecture on "Fostering Electronics innovation with cloud computing" on 16 November 2022.
- ❖ Organised a Technical event "CirQtrix 2k23" for II ECE student to explore their knowledge on 28<sup>th</sup> November 2022.



Students participation in the contest

## **FACULTY ACHIEVEMENTS**

### **Journal Publication– International/ National conferences**

#### **Dr. Karthigaikumar. P, Professor and Head**

- ❖ Published a paper titled "Deep Learning Techniques for Image Classification of COVID-19 – A Survey," 2022 6th International Conference on Devices, Circuits and Systems (ICDCS), Coimbatore, India, 2022, pp. 161-165, doi: 10.1109/ICDCS54290.2022.9780729.

#### **Dr.Rajendran A, Professor**

- ❖ Published a paper titled "Enhanced Model for Genetic Algorithm Based Accurate Lung Cancer Segmentation and Classification", Computer Systems Science and Engineering, Vol.42, No.2, pp.2017-2032, 2022.

#### **Dr.Annalakshmi M, Professor**

- ❖ Published a paper titled "An approach to deep learning based on Discrete wavelet transform for the diagnosis of epilepsy", NeuroQuantology, Vol. 20, No.10, pp.8941-8955, 2022.

#### **Dr.Deepa S, Associate Professor**

- ❖ Published a paper titled "IoT-enabled smart healthcare data and health monitoring based machine learning algorithms", NeuroQuantology, Vol. , No., pp. , 2022.

#### **Dr.Priya C, Associate Professor**

- ❖ Published a paper titled "Smart Bike Helmet with Vehicle Tracking System using Arduino," 2022 International Conference on Edge Computing and Applications (ICECAA), Tamilnadu, India, 2022, pp. 579-582, doi: 10.1109/ICECAA55415.2022.9936590.
- ❖ Published a paper titled "Smart Wearable Device for Women Safety Using IoT," 2020 5th International Conference on Communication and Electronics Systems (ICCES), Coimbatore, India, 2020, pp. 459-463, doi: 10.1109/ICCES48766.2020.9138047.
- ❖ Published a paper titled "An Area Efficient FFT Processor using Modified Compressor adder based Vedic Multiplier," 2022 6th International Conference on Devices, Circuits and Systems (ICDCS), Coimbatore, India, 2022, pp. 62-66, doi: 10.1109/ICDCS54290.2022.9780676.

#### **Dr.Sethuramalingam TK, Associate Professor**

- ❖ Published a paper titled "Design of miniaturized dual-band Filtering Antenna with improved selectivity utilizing Square Complementary Split Ring Resonator for 5G MM-Wave Automobile Applications", International Journal of RF and Microwave Computer-Aided Engineering, Vol.32 , No.11, pp. e23378, 2022.

#### **Dr.Selvakumar R, Assistant Professor**

- ❖ Published a paper titled "Ultra-Low-Power and Fast Voltage Level Shifter Using Muller C-Cell for VLSI Systems", Circuits, Systems and Signal Processing, Vol.41, No.11, pp.6530-6546, 2022.
- ❖ Published a paper titled " Face Biometric Authentication System for ATM using Deep Learning", 3rd International Conference on Electronics and Sustainable Communication Systems (ICESC), Coimbatore, India, 2022, pp. 647-655, doi: 10.1109/ICESC54411.2022.9885334"

#### **Ms.Archana P, Assistant Professor**

- ❖ Published a paper titled "Face recognition based vehicle starter using machine learning", Measurement: sensor, Vol.24, No.12, pp.100575, 2022.

#### **Ms.S.Malini, Assistant Professor**

- ❖ Published a paper titled "A Web-based Optimized Hybrid Power Management with IoT," 2022 Smart Technologies, Communication and Robotics (STCR), Sathyamangalam, India, 2022, pp. 1-4, doi: 10.1109/STCR55312.2022.10009133..

#### **Ms.L.Saranya, Assistant Professor**

- ❖ Published a paper titled "Disease Detection of Leaf Review Collection using Deep Learning", International Conference on Edge Computing and Applications, ICECAA 2022 - Proceedings, 2022, DOI:10.1109/ICECAA55415.2022.9936400.

### **Awards Received – NPTEL**

#### **Dr. Selvakumar R, Assistant Professor**

- ❖ Received "DOMAIN SCHOLAR CERTIFICATION" in VLSI Design (Electrical Engineering) from SWAYAM – NPTEL during period July – December 2022.
- ❖ Recognised as a "NPTEL MOTIVATED LEARNER" from SWAYAM – NPTEL during period July – December 2022.

### **Seminar / Workshop / FDPs / STTPs – Presented / Attended**

- ❖ Dr. Karthigaikumar P, Professor and Head attended nine days Faculty Development Program on "Advanced Materials and process for Next-Generation NanoElectronic Devices", 27th June to 4th July 2022.
- ❖ Mrs.Archana P, Assistant Professor attended five days Faculty Development Program on "Entrepreneurship, Innovations & Digital Skills in new Era of AI" from 25th July 2022.
- ❖ Mrs.Archana P, Assistant Professor attended three months Faculty Development Program on "Accreditation and outcome-based learning" from 3rd August 2022 to 17th October 2022.
- ❖ Mrs.Archana P, Assistant Professor attended two days Faculty Development Program on "Disruptive Technologies for Next Gen Computing", from 14th to 16th December 2022.
- ❖ Mrs.Sobana S, Associate Professor attended three months Faculty Development Program on "Accreditation and outcome-based learning" from 3rd August 2022 to 17th October 2022.
- ❖ Ms.Happila T, Assistant Professor attended five days Faculty Development Program on "The role of Artificial Intelligence in Renewable Energy Applications" from 1st August 2022 to 5th August 2022.

- ❖ Mr Jayadevan NM, Assistant Professor attended five days Faculty Development Program on "The role of Artificial Intelligence in Renewable Energy Applications" from 1st August 2022 to 5th August 2022.
- ❖ Mrs. Malini S, Assistant Professor five days Faculty Development Program on "Designing and Modelling of IoT, AI & ML Systems", from 1st August 2022 to 5th August 2022.
- ❖ Dr. M Tamilnidhi, Assistant Professor attended five days Faculty Development Program on "3D Bioprinting and its Applications" from 12th to 17th December 2022.
- ❖ Dr. M Tamilnidhi, Assistant Professor attended two days Faculty Development Program on "Machine Learning Algorithms for Wireless Communication Networks", 4th to 5th November 2022.
- ❖ Mrs. Dharanika T, Assistant Professor attended ten days Faculty Development Program on "Introduction to Internet of Things" from 7th to 17th July 2022
- ❖ Mrs. Dharanika T, Assistant Professor attended five days Faculty Development Program on "Real-Time Applications of Opal-RT for Smart Grids", 17th to 21st October 2022.
- ❖ Mrs. Dharanika T, Assistant Professor attended five days Faculty Development Program on "Applications of Graph Theory and Artificial Intelligence in Distributor feeder management", 28th November to 2nd December 2022
- ❖ Mrs. Dharanika T, Assistant Professor attended five days Faculty Development Program on "Power Systems and Control", from 26th to 30th September 2022
- ❖ Mr Jayadevan NM, Assistant Professor attended three months Faculty Development Program on "Mathematical Aspects of Biomedical Electronic System Design" from July to October 2022.
- ❖ Mr Jayadevan NM, Assistant Professor attended five days Faculty Development Program on "Amazon Web Services", from 22nd to 27th August 2022.

#### **Patent Granted**

- ❖ Dr.S.Deepa has awarded patent titled "AIR QUALITY INDICATOR" on 20<sup>th</sup> October 2022 [Patent No: 372884-002].
- ❖ Dr.S.Deepa has awarded patent titled "OXYGEN LEVEL INDICATOR" on 20<sup>th</sup> October 2022 [Patent No: 372884-001].

### **STUDENTS ACHIEVEMENTS**

#### **Co-Curricular Activities**

- ❖ Shalini ARK from II ECE has participated in "ASIA BOOK OF RECORD" held at Karpagam College of engineering during September 2022.
- ❖ SRUTHIKA SV from II ECE has participated in "ASIA BOOK OF RECORD" held at Karpagam College of engineering during September 2022.
- ❖ BOWNIKA T from II ECE has participated in "ASIA BOOK OF RECORD" held at Karpagam College of engineering during September 2022.
- ❖ Sivaprasath S from III ECE has successfully completed online course on "Microsoft Explore relational data" during September 2022.
- ❖ Thamil SV from III ECE has successfully completed online course on "Microsoft Explore relational data" during September 2022.
- ❖ Narmatha M from III ECE has successfully completed online course on "Microsoft Explore relational data" during September 2022.
- ❖ Prizensam E from III ECE has successfully completed online course on "Microsoft Explore relational data" during September 2022.
- ❖ Keerthana P from III ECE has successfully completed online course on "Microsoft Explore relational data" during September 2022.
- ❖ Logeshwari P from III ECE has successfully completed online course on "Microsoft Explore relational data" during September 2022.
- ❖ Mohanaprasath M from III ECE has successfully completed online course on "Microsoft Explore relational data" during September 2022.
- ❖ Narmatha M from III ECE has successfully completed online course on "Microsoft Explore core data concepts" during September 2022.
- ❖ Prizensam E from III ECE has successfully completed online course on "Microsoft Explore core data concepts " during September 2022.
- ❖ Keerthana P from III ECE has successfully completed online course on "Microsoft Explore core data concepts " during September 2022.
- ❖ Logeshwari P from III ECE has successfully completed online course on "Microsoft Explore core data concepts " during September 2022.
- ❖ Santhiya R from III ECE has successfully completed online course on "Infosys Active Listening Skills for students" during September 2022.
- ❖ Ragavi RV from III ECE has successfully completed online course on "Infosys Active Listening Skills for students" during September 2022.
- ❖ Vinoth M from III ECE has successfully completed online course on "Infosys Active Listening Skills for students" during September 2022.
- ❖ Akshara M from III ECE has successfully completed online course on "Infosys Active Listening Skills for students" during September 2022.
- ❖ Nivedita N from III ECE has successfully completed online course on "Infosys Active Listening Skills for students" during September 2022.
- ❖ Muthuraj M from III ECE has successfully completed online course on "Infosys Active Listening Skills for students" during September 2022.
- ❖ Arthi NA from II ECE has successfully completed online course on "Infosys Basics of Python" during September 2022.
- ❖ Mirthula R from II ECE has successfully completed online course on "Infosys Basics of Python" during September 2022.
- ❖ Vaasanthika from II ECE has successfully completed online course on "Infosys Basics of Python" during September 2022.
- ❖ Elamathi R from II ECE has successfully completed online course on "Infosys Basics of Python" during September 2022.

#### **Extra-Curricular Activities**

- ❖ Pooja L from III ECE participated and won 2<sup>nd</sup> prize in "Pro Volley Ball Tournament" held at Karpagam College of Engineering from 19.09.2022.
- ❖ Pooja L from III ECE participated and won 2<sup>nd</sup> prize in "Volley Ball – BIT Alumni Trophy 2022" held at Bannari Amman Institute of Technology from 1.09.2022 to 2.9.2022.
- ❖ Gopi P from III ECE participated and his photo short listed as one of best photo in first 50 in "Namma Salem Photography contest and photo exhibition-2022" held on 1<sup>st</sup> November 2022.
- ❖ Prajit T from III ECE participated and won 2<sup>nd</sup> prize in "Paradox puzzle key" as part of "KRISHNECS – 2k22" at Sri Krishna College of Engineering and Technology held on 18.10.2022.
- ❖ Prajit T from III ECE participated in "Photonics" as part of "KRISHNECS – 2k22" at Sri Krishna College of Engineering and Technology held on 18.10.2022.
- ❖ Harikrishna RP from III ECE participated in "UAV FLYT Contest" as part of "KRISHNECS – 2k22" at Sri Krishna College of Engineering and Technology held on 18.10.2022.
- ❖ Mohanasitharth M from III ECE participated in "UAV FLYT Contest" as part of "KRISHNECS – 2k22" at Sri Krishna College of Engineering and Technology held on 18.10.2022.
- ❖ Kishore kumar KS from III ECE participated in "UAV FLYT Contest" as part of "KRISHNECS – 2k22" at Sri Krishna College of Engineering and Technology held on 18.10.2022.

### **Chief Editors:**

**Dr. R. Selvakumar, Assistant Professor/ECE**  
**Mr. G. Arun Francis, Assistant Professor/ECE**  
**Mr. C. Mukuntharaj, Assistant Professor/ECE**



### Programme Outcomes:

The following are the program outcomes of the department of Electronics and Communication engineering At the end of the program the students will have

PO1:	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2:	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3:	<b>Design/ Development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4:	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5:	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6:	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7:	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8:	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9:	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10:	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11:	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12:	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### The Program Specific Outcomes :

The program specific outcomes are defined as

PSO1:	Good knowledge and hands-on competence to solve emerging real-world problems related to Electronic Devices and Circuits, Communication Systems, Digital Systems, and Electro-magnetics.
PSO2:	Demonstrate proficiency in specialized software packages and computer programming useful for the analysis/design of electronic engineering systems and profession.

