KARPAGAM COLLEGE OF ENGINEERING
Rediscover | Refine | Redefine
Coimbatore - 641 032
Autonomous | Affiliated to Anna University, Chennai
Accredited by NAAC with 'A' Grade | NBA (ECE, EEE, CSE, MECH & IT)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ELECTRO MEDIA

Department News Letter

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 with 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

DEPARTMENT ORGANIZED EVENTS

- ❖ Organized a Five day Online Faculty Development Program on "Techniques in Innovations and Research" from 5th to 9th July 2021.
- ❖ Organized a Five day Career Awareness Programme on "An Insight into Career Opportunities in Electronics and Communication Engineering to KCEians by KCEians" from 9th to 13th August 2021.
- ❖ Organized a Career Guidance Programme on "Insight of Networking in Engineering" on 12th August 2021.
- ❖ Organized a Technical Event "μCon 2K21-Conquering the world of Microprocessors" on 13th August 2021.
- ❖ Organized a One Day Hands-on Session on "Machine Learning for Electronics Engineers" on 13th August 2021.
- ❖ Organized a Three day workshop on "Recent Trends in Artificial Intelligence" from 12th to 14th August 2021.
- ❖ Organized a One Day National level Seminar on "Emerging Communication Technologies" on 26th August 2021.
- ❖ Organized a Two Day National level Women Empowerment program on "Women's Mental Health and Wellbeing" from 3rd to 4th September 2021.
- ❖ Organized an IEEE DAY Seminar on "Carbon Nanotube Field Effect Transistors - A Promising Element For Deep Sub Micron Technologies" on 6th October 2021.
- ❖ Organized an IEEE DAY Seminar on "Machine Learning Techniques for Sentiment Analysis" on 6th October 2021.
- ❖ Organized an IEEE DAY Seminar on "Micro to Nano systems based on IRDS" on 6th October 2021.
- ❖ Organized a Career Awareness Program on "Cyber Security" on 18th December 2021.
- ❖ Organized an Awareness Program on "Career Opportunities in Data Science" on 27th December 2021.
- ❖

FACULTY ACHIEVEMENTS

Seminar / Workshop / FDPs / STTPs – Presented / Attended

- ❖ **Dr.C.Priya,** Associate Professor attended Three days FDP on Research Perspectives in AI and its Applications at RMK College of Engineering and Technology, Tiruvallur from 22nd to 24th July 2021.
- ❖ **Dr.C.Priya,** Associate Professor attended Five days FDP on Exploring Entrpreanurship and Startup Opportunities at Sri Venkateshwaraa College of Engineering and Technology, Puduchery from 5th to 9th July 2021.
- ❖ **Dr.R.Suguna,** Assistant Professor attended one week ATAL FDP on FPGA based deep learning Applications in Signal Processing at KLE Technological University, Hubli from 5th to 9th July 2021.
- ❖ **Dr.R.Suguna,** Assistant Professor attended two days faculty development program on Block Chain Technology at SRM Institute of Science and Technology, Chennai from 23rd to 24th July 2021.
- ❖ **Dr.R.Suguna,** Assistant Professor attended one week ATAL FDP on Machine Learning Techniques in VLSI Design at Ramaih Institute of Technology, Bengaluru from 26th to 30th July 2021.
- ❖ **Dr.S.Deepa,** Associate Professor attended three days FDP on Unleash the Prominence of Flowers – AN Women Empowerment Programme at RMK College of Engineering and Technology, Tiruvallur from 26th to 28th July 2021.
- ❖ **Ms.L.Saranya,** Assistant Professor attended Five days FDP on Exploring Entrpreanurship and Startup Opportunities at Sri Venkateshwaraa College of Engineering and Technology, Puduchery from 5th to 9th July 2021.
- ❖ **Ms.L.Saranya,** Assistant Professor attended One Week FDP on Recent Innovations in Industrial Automation – A Boot Camp at Sri Venkateshwaraa College of Engineering and Technology, Puduchery from 12th to 16th July 2021.
- ❖ **Mr.G.Rajarathinam**, Associate Professor attended one week ATAL FDP on Virtual Augmented reality for Robotics at Vimal Jyothi Engineering College, Kerala from 12th to 16th July 2021.
- ❖ **Mr.S.Ram Prasath S,** Assistant Professor attended one week ATAL FDP on Sensors fabrication and its applications in IoT at Graphic Era University, Dehradun from 2nd to 6th July 2021.
- ❖ **Ms.T.Happila,** Assistant Professor attended Five days FDP on Exploring Entrpreanurship and Startup Opportunities at Sri Venkateshwaraa College of Engineering and Technology, Puduchery from 5th to 9th July 2021.
- ❖ **Ms.S.Malini,** Assistant Professor attended one week ATAL FDP on Green Technology and Sustainability Engineering at Amrita Vishwa Vidyapeetham, Coimbatore from 5th to 9th July 2021.
- ❖ **Dr.P.Karthigaikumar** has successfully completed an NPTEL course entitled ACCREDITATION AND OUTCOME BASED LEARNING.
- ❖ **Dr.M.Annalakshmi** has successfully completed an NPTEL course entitled SYSTEM DESIGN THROUGH VERILOG and awarded with ELITE + SILVER.
- ❖ **Mr.G.Arun Francis** has successfully completed an NPTEL course entitled ELECTROMAGNETIC THEORY and awarded with ELITE + SILVER.

Journal Publication – International/National

Dr.P.Karthigaikumar, Professor and Head / ECE
- ❖ Published a paper titled "Implementation of a High-Speed and High-Throughput Advanced Encryption Standard", Intelligent Automation & Soft Computing, Vol.31, No.2, pp.1025-1036, 2021.
- ❖ Published a paper titled ""Efficient Morphological Segmentation of Brain Hemorrhage Stroke Lesion through MultiResUNet"", Computers, Materials & Continua, Vol.70, No.3, pp.5233-5249, 2021."
- ❖ Published a paper titled "An effective software based method to analyze SCA countermeasures for Advanced Encryption Standard", Wireless Personal Communications, Vol.111, No.1, pp.1025-1031, 2021.
- ❖ Published a paper titled "FPGA implementation of AES algorithm for high speed applications", Analog Integrated Circuits and Signal Processing, Vol.7, No.1, pp.2225-2236, 2021.

Dr.A.Rajendran, Professor / ECE
- ❖ Published a paper titled "An automatic brain tumor segmentation using Inception module based U-Net model", Journal of Intelligent & Fuzzy Systems, Vol.43, No.1, pp.1-12, 2021.

Dr.T.K.Sethuramalingam, Associate Professor / ECE
- ❖ Published a paper titled "Fuzzy logic controller based ship navigation system", Journal of Physics: Conference Series, Vol.18, No.5, pp.1-14, 2021.

Dr.C.Priya, ASP/ECE
- ❖ Published a paper titled "H∞-dCNN: Enhancing the SNR using Deep Learning Algorithm in Wireless Communication System", Arabian Journal for Science and Engineering, Vol.1, No.2, pp.45-89, 2021.

- ❖ Published a paper titled "Wideband Vivaldi Antenna for Reduced Radar Cross Section in Stealth Applications", IETE Journal of Research, Vol.10, No.2, pp.1-12, 2021."

Dr.S.Deepa, ASP/ECE
- ❖ Published a paper titled "Intelligent Network Intrusion Prevention Feature Collection and Classification Algorithms"", Algorithms, Vol.14, No.8, pp.224-229, 2021.

Dr.R.Suguna, ASP/ECE
- ❖ Published a paper titled "Hybrid spectrum sensing architecture Using LLCBC MAC for CR-WSN applications", Analog Integrated Circuits & Signal Processing, Vol.108, No.3, pp.657-669, 2021.

Dr.R.Selvakumar, AP/ECE
- ❖ Published a paper titled "A split-input driver enabled high-speed and energy-efficient level shifter using hybrid pull-up network", Circuits, Systems and Signal Processing, Vol.42, No.1, pp.11-15, 2021.
- ❖ Published a paper titled "High performance Contention-eased Full-swing Level Converter for multi-supply voltage systems ", Sadhana - Academy Proceedings in Engineering Sciences, Vol.46, No.220, pp.56-61, 2021.

Ms.P.Archana, AP/ECE
- ❖ Published a paper titled "Artificial Neural Network Model for Predicting Fraudulent Attacks", Journal of Physics: Conference Series, Vol.1979, No.1, pp.1-8, 2021.

STUDENT ACHIEVEMENTS IN COCURRICULAR / EXTRACURRICULAR ACTIVITIES

- ❖ HARIHARAN R R/ 20L118 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.
- ❖ RAM KISHORE T/ 19L336 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.
- ❖ ABINESH P/ 19L301 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.
- ❖ PRABHAKARAN K T/ 19L231 have successfully completed an NPTEL course entitled ELECTROMAGNETIC THEORY.
- ❖ CIBI CHAKKARAVARTHE R K/ 20L310 has successfully completed an NPTEL course entitled DIGITAL CIRCUITS.
- ❖ CIBI CHAKKARAVARTHE R K/ 20L310 has successfully completed an NPTEL course entitled DEVELOPING SOFT SKILLS AND PERSONALITY.
- ❖ SHARMILA P/ 20L147 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.
- ❖ SUMITHA / 20L152 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE+SILVER.
- ❖ JANANI PRIYA /18L315 have successfully completed an NPTEL course entitled SOFT SKILLS and awarded with SUCCESSFULLY COMPLETED.
- ❖ MAITHREYAN/19L327 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.
- ❖ VIGNESH V/18L145 have successfully completed an NPTEL course entitled PROBLEM SOLVING THROUGH PROGRAMMING INC and awarded with ELITE.
- ❖ VIGNESH V / 18L145 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.
- ❖ DEEPAN R / 19L108 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE+SILVER.
- ❖ S.MANIRAJ /18L121 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE+SILVER.
- ❖ ABITHA A / 19L304 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.
- ❖ SNEHA N / 18L342 have successfully completed an NPTEL course entitled SOFT KILLS.
- ❖ THARUN A G / 18L346 have successfully completed an NPTEL course entitled SOFT SKILLS.
- ❖ SENDURAN B / 18L339 have successfully completed an NPTEL course entitled SOFT SKILLS.
- ❖ RICHARD MARSHAL R/18L334 have successfully completed an NPTEL course entitled SOFT SKILLS,
- ❖ PRATHAP R/18L331 have successfully completed an NPTEL course entitled SOFT SKILLS and awarded with ELITE.
- ❖ PAVITHRA C / 18L329 have successfully completed an NPTEL course entitled SOFT SKILLS and awarded with ELITE
- ❖ MOHAN KUMAR S /18L325 have successfully completed an NPTEL course entitled DESIGN FOR INTERNET OF THINGS.
- ❖ MOHAN KUMAR S/18L325 have successfully completed an NPTEL course entitled SOFT SKILLS.
- ❖ GUHAN P R/18L313 have successfully completed an NPTEL course entitled SOFT SKILLS.
- ❖ CHANDRU K/18L306 have successfully completed an NPTEL course entitled SOFT SKILLS and awarded with ELITE.
- ❖ NAVINKARTHICK S/18L126 have successfully completed an NPTEL course entitled PROGRAMMING IN JAVA and awarded with ELITE.

❖ RAGAVI R V/ 20L339 have successfully completed an NPTEL course entitled DEVELOPING SOFT SKILLS AND PERSONALITY.

❖ NARMADHA M/20L333 have successfully completed an NPTEL course entitled DEVELOPING SOFT SKILLS AND PERSONALITY.

Chief Editor(s):

Mr. G.ARUN FRANCIS,
ASSISTANT PROFESSOR, DEPARTMENT OF ECE.
Mr.C.MUKUNTHARAJ,
ASSISTANT PROFESSOR, DEPARTMENT OF ECE.

Students Editorial Member(s)

18L232 RANJITHKUMAR K
19L601 PRAVIN SUNDHAR K
19L219 KARTHIKEYAN S
19L241 SINDHUJA B

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:	**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2:	**Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3:	**Design/ Development of solutions:** 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:	**Conduct investigations of complex problems:** 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:	**Modern tool usage:** 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:	**The engineer and society:** 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:	**Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8:	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9:	**Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10:	**Communication:** 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:	**Project management and finance:** 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:	**Life-long learning:** 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.