

# PANIMALAR ENGINEERING COLLEGE

An Autonomous Institution

Affiliated to Anna University, Chennai (JAISAKTHI EDUCATIONAL TRUST)



# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## **INNOVATRONIX**

2024 - 2025

NEWS LETTER

**MARCH - 2025** 

Volume: 21

Issue: 2

Website: https://panimalar.ac.in

# Message



Dr. P. Chinnadurai, M.A., Ph.D.
Secretary & Correspondent, Panimalar Group of Institutions

Success is all about respecting the past and creating the future. I wish the Panimalar group of institutions the very best in delivering quality education to all walks of the society.



Dr. C. Sakthi Kumar M.E., Ph.D. Director, Panimalar Group of Institutions

As we speak, technology around us changes. Innovation has become the buzzword. We at Panimalar group of institutions, create and carve out a niche for the students, and we make them believe that "education for life" rather than "education for living".



Mrs. C. Vijayarajeswari
Director, Panimalar Group of Institutions

One of the greatest challenges and opportunities in the modern day is preparing today's students for tomorrow's needs. We tutelage the students to embrace the change and move forward in this competitive environment.



Dr. Saranya Sree Sakthi Kumar B.E., M.B.A., Ph. D. Director, Panimalar Group of Institutions

At Panimalar, we identify student's potential, convert them into talent and elevate the talent to infinite possibilities. We condition the students for the challenges ahead and groom them to be responsible citizens.

# Message



Dr. K. Mani, M.E, Ph.D. Principal

I am pleased to share with you the newsletter from Department of ECE, Panimalar Engineering College. You will be delighted to go through this volume that will connect you to the many activities of this dynamic department. Let this newsletter and series of such letters keep us all continuously informed about all the developments of the department in the years to come. I wish the Head of the Department, all the staff and students of the department for having taken the best initiatives in bringing out this Newsletter.

# Dr. S. Rajakumar M.E, Ph.D. Professor & Head of the Department, ECE

On behalf of the Department of ECE, Panimalar Engineering College, it gives us immense pleasure in presenting this newsletter. It was exhilarating being the editors of this issue. This newsletter focuses on the happenings of the academic year along with the incredible achievements of our students and staff. We hope that this newsletter will be giving you an excellent insight on the various achievements by the members of our department.



FACULTY EDITOR: DR.M.PREM KUMAR, M.E, PH.D

DR.S.SHIBU, M.E, Ph.D

STUDENT EDITOR: ROSHAN R (III ECE)

POOVARASAN P (III ECE)
MUKESH T (III ECE)

# VISION

To provide world class quality education and excelling research activities in Electronics and Communication Engineering with strong ethical values and social challenges.

# **MISSION**

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M1: To impart high quality technical education by investing in faculty development and resources.

M2: To adapt best teaching and learning process with strong state of art facilities for academic and research activities.

M3: To enhance national and international collaborative activities for evolving indigenous technological solutions to meet social needs, nurture leadership and entrepreneurship qualities with ethical means.

M4: To facilitate partnership with leading core industries and R&Ds for global outreach.

# PEOS OF THE ECE PROGRAM

## PEO1: Core Competencies

To prepare the graduates in fostering Electronics and Communication Engineering principles to provide socially relevant and sustainable engineering solution.

## PEO2: Professional Integrity

To gain adequate knowledge to become good professional in Electronics and Communication Engineering associated industries, higher education and research.

## PEO3: Research & Global Responsibilities

To prepare graduates in an area of specialization, ethically develop innovative and research oriented methodologies to enhance the adaptability of technological and social challenges.

# PROGRAM OUTCOMES (POS)

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## 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 modelling 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.

# PROGRAM OUTCOMES (POS)

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# P07: 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.

### P010: 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.

## P012: 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.

# PROGRAM SPECIFIC OUTCOMES (PSOS)

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PSO1: Graduates should demonstrate an understanding of the basic concepts in the primary area of Electronics and Communication Engineering, including: analysis of circuits containing both active and passive components, electronic systems, control systems, electromagnetic systems, digital systems, computer applications, and communications.

PSO2: Graduates should demonstrate the ability to utilize the mathematics and the fundamental knowledge of Electronics and Communication Engineering to design complex systems which may contain both software and hardware components to meet the desired needs.

PSO3: The graduates are capable of excelling in Electronics and Communication Engineering industry/Academic/Software companies through professional careers.

# ABOUT THE DEPARTMENT



Panimalar Engineering College affiliated to Anna University, Chennai, was established in the year of 2000. The Department of Electronics and Communication Engineering offers the following programs.

B.E. – Electronics and Communication Engineering (4 Years)

M.E. – Communication Systems (2 Years)

Ph.D. - Electronics and Communication Engineering (Full time / Part time).

The main focus of the ECE department is to impart technical education that meets international standards in the field of Electronics and Communication for the benefit of the society. The department has three centres of excellence to promote research and development with industry collaboration.

Centre of excellence in Robotics and IoT helps to foster innovation and develop industrial automation solutions. Centre of Excellence in Drones helps to train and upskill students for the future of unmanned aerial vehicle technology to make them industry ready and empower their technical skills in the drone technology space. Centre for Research on Reconfigurable Wireless Technologies is developed to promote research and publications in various domains spanning from basics of circuits to emerging 6G wireless technologies.

Undergraduate students, Postgraduate students and Research scholars of the department are well qualified to meet the demands of the Industry and Research Organization. Our department is equipped with eminent faculty members who are expertise in various technical domains. The total strength of regular teaching faculty members in the department is 72, of which 33 of them are doctorates and all the remaining staff members are qualified with Masters Degree. The research activities are carried out by a group of expert research members.

### The overall focus of the department is to

- Emphasis elemental knowledge of the subjects.
- Provide exposure to the emerging technologies.
- Inculcate strong research and development activities.

Our department has various technical and non-technical clubs that provide opportunities for students to explore their interests, develop leadership skills, and engage in community service. We also emphasize soft skills training, including communication and personality development, ensuring that our students are well prepared for the professional world.



# STAFF ACHIEVEMENTS

Academic Year 2024 - 2025



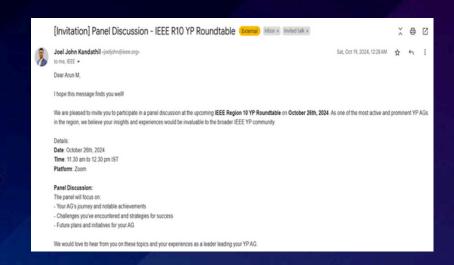
Mr. M. Arun, Assistant Professor, ECE, acted as a Jury Member for Poster Presentation Event in IEEE Women in Engineering Leadership Summit 2024 at College of Engineering Guindy, Anna University on 5.10.2024.



Mr. M. Arun, Assistant Professor, ECE, acted as a Programme Chair in IEEE Women in Engineering Leadership Summit 2024 at College of Engineering Guindy, Anna University during 3.10.2024 to 5.10.2024.



Mr. M. Arun, Assistant Professor, ECE, acted as a Guest of Honor at IEEE MAS VOLT 24 event at Grootan Technologies and also delivered a Talk on Unveiling the IEEE Affinity Groups & its functions on 19.10.2024.



Mr. M. Arun, Assistant Professor, ECE, acted as a Speaker at Panel Discussion – IEEE R10 YP Roundtable organized by IEEE R10 on 26.10.2024.



Mr. M. Arun, Assistant Professor, ECE, delivered a Seminar on Empowering Innovation through IEEE: Membership Benefits & Opportunities at KSR College of Engineering on 09.11.2024.



Mr. M. Arun, Assistant Professor, ECE, acted as a Guest of Honor and delivered the Inaugural Address at IEEE Reliability Society Madras Summit 2024 at Rohini College of Engineering and Technology, Kanyakumari on 09.11.2024.



Mr. M. Arun, Assistant Professor, ECE, acted as a Session Chair for the IEEE Returning Mothers Conference 2024 held at the Indian Institute of Science, Bengaluru on 15.11.2024 &16.11.2024.



Mr. M. Arun, Assistant Professor, ECE, served as a Session Chair at 10th IEEE Women In Engineering Conference on Electrical and Computing Engineering (WIECON-ECE)2024 at College of Engineering Guindy, Anna University on 06.12.2024.



Mr. M. Arun, Assistant Professor, ECE, acted as a Organizing Chair & acted as Moderator for YP Panel Know Your IEEE in All India Student - Young Professionals - Women in Engineering - Life Members Congress (AISYWLC) 2024 at College of Engineering Guindy, Anna University on 07.12.2024 & 08.12.2024.



Mr. M. Arun, Assistant Professor, ECE, was invited as Guest of Honor and delivered a session on IEEE MAS SIGHT Initiatives at Thiyagarajar College of Engineering, Madurai on 08.02.2025.



Mr. N. Pritha, Assistant Professor, ECE received Certificate of Appreciation for acting as Session Chair for Project Expo in the 4th National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, and Computers, organized by IETE Chennai Centre, on February 20, 2025.



Mrs. G. Srividhya, Assistant Professor, ECE received Certificate of Appreciation for acting as Session Chair for Project Expo in the 4th National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, and Computers, organized by IETE Chennai Centre, on February 20, 2025.



Dr. S. Sathiya Priya, Professor, ECE received Certificate of Appreciation for acting as Session Chair for Project Expo in the 4th National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, and Computers, organized by IETE Chennai Centre, on February 20, 2025.



Mr. M. Arun, Assistant Professor, ECE received Certificate of Appreciation for acting as Session Chair for Project Expo in the 4th National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, and Computers, organized by IETE Chennai Centre, on February 20, 2025.



Mr. M. Arun, Assistant Professor, ECE received the Outstanding ISF ward for the academic year 2023-2024 from IETE Chennai Centre on 09.03.2025.





Mr. M. Arun, Assistant Professor, ECE received the Best ISF Coordinator Award for the academic year 2023-2024 from IETE Chennai Centre on 09.03.2025.



# THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS CHENNAI CENTRE



37, Conran Smith Road, Gopalapuram, 600086

#### **BEST ISF CO-ORDINATOR**

This is to certify that



Dr. S. DEEPA
PANIMALAR ENGINEERING COLLEGE

is awarded as **BEST IETE STUDENTS FORUM (ISF) COORDINATOR** for her outstanding and exemplary contribution towards conducting of Technical Lecture Meetings, Workshops, Students Paper Presentation, National & International Conference and Industrial Visits for the period 2023 – 2024. This award is given by the Institution of Electronics and Telecommunication Engineers, Chennai Centre on 09.03.2025.

Shri. N. Sridharan Chairperson, IETE Chennai Centre

Dr. S. Deepa, Professor, ECE received the Best ISF Coordinator Award for the academic year 2023-2024 from IETE Chennai Centre on 09.03.2025.



Mr. M. Arun, Assistant Professor, ECE, delivered an Awareness Session on IEEE MGA SAC Awards at IEEE Madras Section on 16.03.2025.



Mr. M. Arun, Assistant Professor, ECE, delivered the Seminar on Re-Engineering Life with IEEE at Sri Muthukumaran Institute of Technology on 27.03.2025.



Mr. M. Arun, Assistant Professor, ECE, delivered the Seminar on IEEE Awareness for Professional Growth and Innovation at Rajalaksmi Institute of Technology on 27.03.2025.

# STUDENT ACHIEVEMENTS

Academic Year 2024 - 2025



Mr. Hanush G, Mr. Dinesh Kumar C, Mr. Balamurugan P of III ECE Won the Best Project Award and Cash Prize Rs.1000 for their Project titled Dynamic Automated Speed Limiter in ELITECCOM 2025 Project Expo - organized by IETE Chennai Centre during 20.02.2025.



Our III ECE Students Won the KEC Hackathon 2025, Kongu Engineering College, Perundurai during 10 &11.03.2025.



Mr. Naveen Kumar, Mr. Praveen Kumar, Mr. Prajeet A, Mr. Praveen BB of III ECE Won the Runner Award in the Hackathon Part of Techfest Ignite'25 event at Easwari Engineering College on 13.03.2025.



Mr. Shanmuga Priyan. S, Mr. Sudharsan. S, Mr. Tharun Kumar. Mr. R. K., Sharan Madhav. S of I ECE Won the Electrothon 25 - A 24-hour Hackathon for all college/university students at Chennai Institute of Technology on 13-14. 03.2025.



Ms. Oviya S, Ms. Pandipriya B, Ms. Pavithra Malyaa K, Mr. Thivesh T of III ECE Won Second prize in Paper presentation conducted by PSG Tech, Coimbatore on 15.03.2025.



Ms. Kondru Lakshmi Sri Won the Second Prize with Cash Prize of Rs.1000 in the One Piece (Tech Bug) event at R.M.K. Engineering College on 17.03.2025.



Ms. Premi Sree Priya T S of II ECE Won the Second Prize in the Tech Thesis Event hosted ECE dept, R.M.K Engineering College on 17.03.2025.



Ms. Kiruthika P of II ECE Won the Second Prize in the Tech Thesis Event hosted ECE dept, R.M.K Engineering College on 17.03.2025.

## **SMART INDIA HACKATHON - SIH 2024**



Panimalar Engineering College showcasing their victory at the Smart India Hackathon 2024 (SIH). The banner highlights that the "Green Pioneers" team from the ECE department won the First Prize under the Ministry of Power's Problem Statement in the SIH 2024 Hardware Edition Grand Finale.

















# CENTRE OF EXCELLENCE FLEXTRONICS



Inauguration of Flex Centre of Excellence on Electronic Service & Manufacturing Date of Establishment: 25/10/2024

# WORKSHOP AND HANDS ON TRAINING AT 2024-2025

Sl. No.	Type of Collaborative Activity	Name of the Collaborating Agency with Contact Details	Duration	Nature of the Activity	Number of the Participant
1.	Hands on Training	Mrs. Kousalya Mr.Jacob project Head TANSAM	20-1-25 to 29-1-25	Training on PCB Testing and Debugging	54





Hands on Training on PCB Testing and Debugging from 20 to 29 Jan 2025 by TANSAM, Flextronics Lab

# INDUSTRIAL VISIT TO TANSAM SIEMENS CENTRE OF EXCELLENCE ON 12 / 02 / 2025







# CLUB ACTIVITIES EVENTS CONDUCTED

### **ACADEMIC YEAR 2024-25**

S. No.	Club Organized	Name of the Program / Event	Date	Resource Person/ Chief Guest / Expert Details
1.	Automation Club	Fundamentals of PLC Programming	09.10.2024 to 10.10.2024	Mr. Akash, Assistant Engineer Reunidas Engineering Pvt. Ltd, Chennai

# **Project Expo 2024 - 2025**













### PANIMALAR ENGINEERING COLLEGE

AN AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY CHENNAI.

### DEPARTMENT OF ELECTRONICS & COMMUNICATION

PRESENTS

#### CIRCUIT LAB PROJECT EXPO'24

"Electronics is the art of turning imagination into reality through circuits and components."



TO 110-0CT-2024

Dr.P.Chinnadurai SECRETARY& CORRESPODENT

Dr.K.Mani
Dr.K.Mani
HDD-ECE

Mrs.C.Vijayarajeshwari Dr.C.Sakthi Kumar

Dr.C.Sakthi Kumar Dr.Saranya Sree

ECE LAB HANDLING FACULTIES

STAFF COORDINATORS





Department of Electronics & Communication organised "Circuit Lab Project Expo'24" from 04-Oct-2024 to 10-Oct-2024.

## **FACULTY DEVELOPMENT PROGRAM 2024- 2025**

Faculty Development Program on Transformative Technologies of 5G and Beyond
Communication Networks - An Imperative Solution
was organised from 16/12/2024 to 24/12/2024 in ECE Department

#### CHIEF PATRONS

Dr.P.Chinnadurai, M.A., M.Phil, Ph.D, Secretary & Correspondent

#### PATRONS

Dr. C. Sakthi Kumar M.E, Ph.D, Director Mrs. C.Vijayarajeswari, Director Dr. Saranya Sree Sakthi Kumar B.E,M.B.A,Ph.D.Director

#### CO-PATRONS

Dr. K.Mani, M.E, Ph.D, Principal Dr. S.Rajakumar,M.E.,Ph.D., HoD/ECE

#### COORDINATORS

Dr. M. P. Chitra , M.E., Ph.D.,
Professor / ECE
Dr. B. Bhuvaneswari, M.Tech.. Ph.D.,
Professor / ECE
Dr. S. Deepa, M.E., Ph.D., Professor / ECE

Mr. M. Arun, B.E., M.E., Asst. Prof / ECE

COMMITTEE MEMBERS:

Dr. Leones Sherwin Vimalraj, M.E., PhD., Professor / ECE, Dr. J. Jeneetha Jebanezar, M.E., PhD., Professor / ECE Dr. S. Shibu, M.E., PhD., Professor / ECE Dr. V. Aruna, M.E., PhD., Asso. Professor / ECE

#### COLLEGE PROFILE

#### OBJECTIVES AND OUTCOMES

he objective of the FDP is, "To cater excellence in celuical education with relevant industry need and escarch focus with adequate possibilities for the pgraded society in the country and to support technical stitutions in fostering research, innovation and interpreneurship through potential training in ontemporary technological fields."

#### ELIGIBILITY AND GUIDELINES

Participants should be faculty/research scholar in any University

- Institution or from Industries
- No Charge for Registration, Course and Certification.
   Only 10 participants salested based on first come first serve.
- Only 30 participants selected based on first come first serve as will be intimated by a mail only.
- On the last day of the program an assessment test will be conducte for all participants.
- E-certificate will be awarded only to those participants have minimum 80% attendance and scored minimum 70 % marks in the state of the

#### ADVISORY MEMBERS

- Dr. D. Sriram Kumar, Professor, Trichy
- Dr. R. Nakkeeran, Professor, Pondicherry Univers
- > Dr. V. Natarajan, Scientist, SETS
- Dr. T. Rama Rao, Prof. SRMIST, Chennai
- Mr. Saravaperumal, VP, QMAX Pvt., Ltd., Chenr

#### RESOURCE PERSONS:

- > Dr. K. Malathi, Professor, ECE ,Anna University
- Dr. M.Gulam Nabi Alsath, Asso. Professor, ECE, An University
- Dr. S.Ramprabhu, Asst. Professor, MIT, Chrompet Anna University
- Dr. K.Indhumathi, Professor, ECE, Saveetha Engineering College
- > Dr. Vivek Ashokan, Territory Manager, ARK
- > Mr. C Saravanabhavan, VP, QMAX Pvt., Ltd., Cheng
- > Dr. V.Sangeetha, Manager, R&D, FLDEC System

#### ABOUT THE DEPARTMENT



FACULTY DEVELOPMENT PROGRAMME





Seven Days Faculty Development Programme On

Transformative Technologies of 5G and Beyond Communication Networks – An Imperative Solution

16th to 24th December 2024

VENUE: COE - FLEXTRONICS, LAB BLOCK-4

#### Organized by:

Department of Electronics and Communication Engineering

> Panimalar Engineering College (An Autonomous Institution) Bangalore Trunk Road, Nazarathpet, Poonaamallee, Chennai, TamilNadu-600123



# FACULTY DEVELOPMENT PROGRAM 2024 - 2025





# FACULTY DEVELOPMENT PROGRAM 2024 - 2025



