

PANIMALAR ENGINEERING COLLEGE

An Autonomous Institution

Affiliated to Anna University, Chennai (JAISAKTHI EDUCATIONAL TRUST)



DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

INNOVATRONIX

2023 - 2024

NEWS LETTER MARCH - 2024

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MESSAGE

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

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





Dr. C. Sakthi Kumar, M.E., Ph.D. Director

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

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. Saranyasree Sakthi Kumar, B.E., M.B.A., Ph.D. Director

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 news letter 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. Prof. & HOD / 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 semester along with the incredible achievements of our students and staff. We humbly hope that this newsletter will be giving you an excellent insight on the various achievements by the members of our department.

FACULTY EDITOR: Dr. S.SHIBU, M.E, Ph.D.

STUDENT EDITOR: R.ROSHAN (II 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

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)

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.

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.

Program Specific Outcomes (PSOs)

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 of excellence 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, post graduate 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 ACHEIVEMENTS



- 1. Mr. M. Arun, Assistant Professor, ECE Inaugurated IEEE SIGHT SJCE AG & delivered the Inaugural address at St.Joseph's College of Engineering on 07.03.2024.
- 2. Mr.M.Arun, Assistant Professor, ECE delivered a talk on an Awareness Webinar on IEEE Regional Exemplary SB Award at IEEE Madras Section on 15.03.2024.
- 3. Mr. M. Arun, Assistant Professor, ECE delivered a talk in Webinar on Re- Engineering Life with IEEE at KSR College of Engineering on 16.03.2024.
- 4. Mr. M. Arun, Assistant Professor, ECE received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in the 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, and Computers, organised by IETE Chennai Centre, on February 24, 2024.
- 5. Dr.M. PREMKUMAR, Professor ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium On Recent Trends In Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on February 24, 2024.
- 6. Dr. C. RAMESH KUMAR, ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.





7. Mrs.G.Srividhya, Assistant Professor ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.

8. Dr. S RAJAKUMAR, ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.

9. Dr. JENEETHA JEBANAZER J, ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.

10. Mr. J.NAVARAJAN, ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.



11. Mr. L ASHOK KUMAR, ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.

12. Dr. T. SUGUNA, ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.

13. Dr. R. SUGANTHI, ECE Department, received Certificate of Appreciation for action as Session Chair in ELITECCOM-2024 in 3rd National Level Symposium on Recent Trends in Electrical, Information & Technology, Electronics & Communication, And Computers, organized by IETE Chennai Centre, on 24, February 2024.

- 14. Mr.M.Arun, Assistant Professor, ECE received the Certificate of Appreciation for Professional Achievement in 2023 from the Institute of Electrical and Electronics Engineers, Madras Section, on 23.02.2024.
- 15. Mr.M.Arun, Assistant Professor, ECE delivered an Invited talk in a One day orientation programme on Pioneering in IEEE Funding Opportunities at Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology on 13.02.2024.
- 16. Mr.M.Arun, Assistant Professor, ECE delivered a Talk in One day workshop on From Ideas to Insights: The Research Paper Writing at Saveetha Institute of Medical and Technical Sciences Engineering on 12.02.2024.
- 17. Mr. M.Arun, Assistant Professor, ECE delivered a talk in an invited Panel Discussion on Harnessing Technology for Community Empowerment hosted by IEEE Madras Section SIGHT-AG on 16.01.2024.
- 18. Mr.M.Arun, Assistant Professor, ECE delivered an Invited talk on V-Tools Event Reporting Training organized by IEEE Madras Section & IEEE MAS YP on 08.11.2023.
- 19. Mr.M.Arun, Assistant Professor, ECE delivered an invited talk on IEEE Funding Schemes at B.S.Abdur Rahman Crescent Institute of Science and Technology on 03.11.2023.
- 20. Mr. Mr.M.Arun, Assistant Professor, ECE delivered an invited talk on IEEE Funding Schemes at Veltech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology on 01.11.2023.
- 21. Mr.M.Arun, Assistant Professor, ECE Served as a Jury Member for the Ideathon and Pitchfest eventat the IEEE Returning Mothers Conference 2023 at The Northcap University, Gurugramon 26.10.2023 & 27.10.2023.
- 22. Mr.M.Arun, Assistant Professor, ECE delivered an invited talk on Leadership Ignite: Powering the Future with IEEE Volunteer Training at IEEE R10 Madras Section Student Summit 2023 at College of Engineering Guindy, Anna University, Chennai on 14.10.2023.
- 23. Mr.M.Arun, Assistant Professor, ECE received the Exemplary Contribution Award & Professional Achievement Award from Institute of Electrical and Electronics Engineers, Madras Section on 14.10.2023.
- 24. Mr. M. Arun, Assistant Professor, ECE delivered an IEEE Awareness Programme talk at S.A. Engineering College on 07.10.2023.

STUDENT ACHEIVEMENTS



Mr. Dharshan. E. K, II ECE Won the First Prize in Debate Contest organized by SIMATS Engineering College on 14.03.24 & 15.03.2024



Ms. MalarvizhI A, ECE received BEST STUDENT VOLUNTEER AWARD 2023 in recognition and appreciation of valuable services and contributions as Volunteer for the IETE Chennai Centre during the year 2023 at Students Day celebration at IETE Chennai Centre on 03.03.2024.



Ms. Shandhini M,ECE received BEST STUDENT VOLUNTEER AWARD 2023 in recognition and appreciation of valuable services and contributions as Volunteer for the IETE Chennai Centre during the year 2023 at Students Day celebration at IETE Chennai Centre on 03.03.2024.



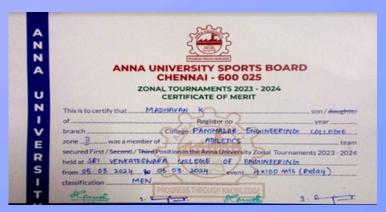
Ms. SUBHAHARINI P, ECE received BEST STUDENT VOLUNTEER AWARD 2023 in recognition and appreciation of valuable services and contributions as Volunteer for the IETE Chennai Centre during the year 2023 at Students Day celebration at IETE Chennai Centre on 03.03.2024.



Ms. SHAHANA M, ECE received BEST STUDENT VOLUNTEER AWARD 2023 in recognition and appreciation of valuable services and contributions as Volunteer for the IETE Chennai Centre during the year 2023 at Students Day celebration at IETE Chennai Centre on 03.03.2024.



Ms. BHARATHI SUBIKSHA S, ECE Won ISF BEST STUDENT VOLUNTEER AWARD 2023 in recognition and appreciation of valuable services and contributions as Volunteer for the IETE Students Forum during the year 2023 at Students Day celebration at IETE Chennai Centre on 03.03.2024.



Mr. K. Madhavan from ECE department Won First position in 4*100m relay in the Anna University Zonal tournament 2023 -2024 held at Sri Venkateswara College Engineering College on 05.03.24 & 06.03.24.



Sreeman Kumar B of III ECE C received the Iconic Best Coordinator Award in ICONIC'24 for his contribution towards department events held on 29.04.2024.

MOU's SIGNED



DADB INDIA PRIVATE LIMITED



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CHASE RESEARCH & DEVELOPMENT SOLUTIONS



NEW TECHNOLOGY

CLUB ACTIVITIES



O5.10.2023



WORKSHOP - LEARN ML WITH KNIME 18.10.2023



DESIGN CLUB MOU SIGNING 19-10-2023



TESLA CLUB - EMF PROJECT EXPO 26.10.23



PROJECT EXPO ON REAL TIME EMBEDDED SYSTEM 23.03.2024



GUEST LECTURE ON 5G TECHNOLOGY 19.07.2024

IETE

Founded in 1953, The Institution of Electronics and Telecommunication Engineers (IETE) is a leading professional society devoted to the advancement of science and technology of "Electronics, Telecommunications and IT". IETE serves its 45,000 members both individuals and industries / organizations through its 41 centres spread all over India and abroad.









WORK SHOP AND HANDS ON TRAINING

Si.N o	Type of Collaborat ive Activity	Name of the Collaborating Agency with Contact Details	Duration	Nature of the Activity	Number of the Participant
1	Hands on Training	Mr.Sri Balaji Aravind, Co- Founder of Arjun Vision Tech Solutions & Professional Training Service provider at NSIC,Chennai	05.10.23	Workshop on Network Engineering (Radio Club)	40
2	Hands on Training	Mr.E.Arun Kumar, Vice President,Retech SolutionsPvt Ltd	11.10.23 – 13.10.23	Workshop on Arduino with IoT (Design Club)	50
3	Hands on Training	Mr.E.Arun Kumar, Vice President,Retech Solutions	16.10.23 - 18.10.23	Workshop on Arduino with IoT (Design Club)	50
4	Hands on Training	Mr. Naveen, Robotics Architect, Pragrobotics Pvt limited	18.10.23& 19.10.23	Workshop 3- Learn ML with KNIME (IR Club)	43
5	Hands on Training	Mr. Karthi, Trainer, New Technology Mobile & Laptop Service Training Institute, Coimbatore.	08.01.24 & 09.01.24 & 10.01.24 & 11.01.24 23.01.24 & 24.01.24	Training on "Chip Level Testing & Debugging for all Mobile Devices"	133
6	Training	Dr. A. Athif Shah, COE, ABE Semiconductor Designs, Chennai.	19.02.24 & 20.02.24	Al for Electronics Engineers	60
					27/

TOTAL

376