



# MANAKULA VINAYAGAR INSTITUTE OF TECHNOLOGY

Affiliated to Pondicherry University, Approved By AICTE,  
Kalitheerthalkuppam, Puducherry-605107

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### ECE NEWSLETTER

Academic Year : (January 2025-May 2025) Even Sem

#### PRINCIPAL MESSAGE



My heartiest welcome to all the young and budding Engineers who have joined in Manakula Vinayagar Institute of Technology (MVIT). With the guidance of our respected Chairman and Vice Chairman, with the help of highly qualified and dedicated faculty team, we will be moulding the students to the required shape which will make them industry-ready, employable and well disciplined. The Manakula Vinayagar Institute of Technology will strive hard to provide pleasant ambience and conducive atmosphere for moulding the young minds to scale greater heights in their chosen field of study. In our college we give top priority to academic excellence, innovation, and discipline. An effective Training and Placement Cell is in place to provide placement to all our students. Focus is given to Extra Curricular and Co-Curricular activities through various clubs and societies instituted to augment the students skills and knowledge. A state-of-the-art and up-to-date infrastructure facilities and good learning atmosphere are the hallmarks of our Institution. I hope all the students admitted in this Institution will enjoy their study in the campus. Let us all come together, build together, and achieve together with the blessings of Almighty for Tomorrow's India.

#### INSTITUTE VISION

To be a globally reputed Technical Institution creating Competent leaders and Skillful innovators in Science, Technology and Management.

#### INSTITUTE MISSION

IM1: Providing a dynamic and creative learning environment for its students to acquire exemplary technical, analytical, professional skills.

IM2: Imbibing a spirit of innovation and research among its students and faculty for solving critical problems.

IM3: Promoting Innovation, Employability and entrepreneurship skills through industry academia collaboration.

IM4: Serving the society through technical intervention and creating socially responsible Professionals.

#### ABOUT THE DEPARTMENT

The Department was established in the year 2008 with a key focus to advance the skills of modern youth in the field of Electronics and Communication Engineering. Adequate emphasis is given to electronic design using innovative teaching methodologies. Emphasis is also given to the digital processing of information for efficient communication. Utmost care is taken in the perspective of imparting more practical knowledge to the student's community in the field of Electronics and Communication. An expert team from National Board of Accreditation conducted on-site evaluation of the program from 24<sup>th</sup> to 26<sup>th</sup> August 2018; ECE department has been accredited for 3 years.

## VISION

To emerge as a center of excellence nurturing innovative engineers in Electronics and Communication technologies who can address global challenges through multidisciplinary approaches , sustainable solutions , and ethical leadership

## MISSION

**DM1.**Impart Quality Education in the field of Electronics and Communication Engineering through experiential learning , project -based curricula , and digital pedagogy to create industry ready professionals.

**DM2.**Foster research temperament by establishing state-of-the-art laboratories and innovation centers focusing on emerging technologies.

**DM3.**Enhance industry collaboration to facilitate internships , live projects , and technology transfer initiatives while promoting entrepreneurial mindset among students.

**DM4.**Develop socially conscious engineers capable of applying Electronics and Communication technologies for sustainable development and societal welfare.

## PROGRAMME EDUCATIONAL OUTCOMES (PEOs)

Graduates of Electronics and Communication Engineering will

**PEO1:** Professional Excellence: Graduates will be employed with professional competency in Electronics and Communication, demonstrating expertise in emerging technologies.

**PEO2:** Research and Innovation: Alumni will excel in research initiatives and entrepreneurial ventures and lead in technological innovation in emerging Electronics and Communication domains.

**PEO3:**Sustainability: Develop and implement sustainable solutions in Electronics and Communication Engineering addressing global challenges while ensuring environmental responsibility and societal welfare

**PEO4:**Ethics and Leadership: Graduates will demonstrate ethical leadership in engineering teams while pursuing professional growth and contributing to the field through mentorship.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

**PSO1:** Products Development: Use modern tools to design subsystems for simple applications in Embedded Systems and VLSI.

**PSO2:** Design Thinking: Apply engineering concepts to find solutions in the fields of Communications, Signal/Image Processing.

## PROGRAMME 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 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.

## STAFF ACTIVITIES:

- 1.Dr.S.Arunmozhi, HOD/ECE, Mr. V. Rajesh, AP/ECE, visited "Advanced Manufacturing Technology Development Centre" for expanding industrial collaboration opportunities on 31.01.2025
- 2.Dr.S.Arunmozhi, HOD/ECE, served as a jury member for a Symposium conducted at "Christ Institute of Technology" on 24.02.2025, contributing to academic evaluation and assessment
- 3.Dr.R.Sofia, attended FDP entitled "Quantum Computing" at Karunya Institute of Technology from 10.02.2025 to 15.02.2025
- 4.Dr.R.Sofia, also attended FDP entitled "Deep Learning and Computer Vision in Clinical Research" at Thiagarajar College of Engineering from 17.02.2025 to 22.02.2025.
- 5.Dr.S.Semmalar and Dr. R. Sofia participated in FDP on "IKS & UHV Foundations for Personal and Social Harmony" from 10.02.2025 to 14.02.2025.
- 6.Mrs.K.Alamelu, attended an IKS & UHV Foundations workshop conducted by IQAC-MVIT from 10.02.2025 to 14.02.2025.
- 7.Mr.K.Sabarinathan, participated in professional development programs (PDP) on "Innovative Approaches in IoT and Embedded Systems" from 06.01.2025 to 10.01.2025.
- 8.Mr.K.Sabarinathan, participated in professional development programs (PDP) on "Application of AI, ML, and DL in Advanced Technologies" from 21.04.2025 to 25.04.2025.
- 9.Mr.R.Srimannarayanan, attended the FDP on "Application of AI, ML & DL in Advanced Technologies" at IEM, New Town, Kolkata from 21.04.2025 to 25.04.2025.
- 10.Mr.S.Mohanraj, participated in a workshop on "Impact of Terahertz Technology in India by 2040: Prospects and Challenges" organized by ANIRF on 3rd to 4th June 2025.

## STUDENT'S ACTIVITIES:

- 1.Value Added Course: Java Programming - Tools, Techniques, and Frameworks was delivered from January 27 to February 3, 2025, with 179 student participants.
- 2.Value Added Course: Mastering Python - From Fundamentals to Advanced Applications was offered from February 11 to February 18, 2025, enrolling 147 students.
- 3.Value Added Course: Digital Image Processing with Python - From Pixel to Product ran from February 10 to February 14, 2025, with 123 attendees.
- 4.Value Added Course: Advanced Wireless Communication for Postgraduate Students was held from March 10 to March 14, 2025, with 4 participants.
- 5.Value Added Course: Exploring Images with MATLAB for Postgraduate Students took place from March 17 to March 21, 2025, engaging 4 students.
- 6.A total of 41 ECE students appeared for various competitive examinations, showcasing their dedication towards higher studies.
- 7.A. Mohamed Baasith - IIIYR/ECE, showcased outstanding performance in multiple cricket tournaments and long jump competitions
- 8.A.Anand - IIIYR/ECE, actively participated in cricket during the Annual Sports Meet 2025.

- 9.J.Ragul - IIYR/ECE, achieved recognition in Yoga competitions at both state and university levels

## PROFESSIONAL SOCIETY ACTIVITIES

- 1.Mr.Jagadeesh Kanna, CEO of Vaayusastra Aerospace Pvt. Ltd., delivered an Endowment Lecture on "Underwater Wireless Drone for Sustainable Development" on 05.10.2024, attended by 60 ECE students.
- 2.Mr.Viswanadh, from Echo Brains, delivered A Guest Lecture on "The Future of Embedded Systems" for 180 ECE students on 30.8.2024



- 3.Dr.T.Sivakami, Professor, MSEC Chennai, conducted a Workshop on "Throughput and Latency Analysis of Satellite Networks in NS-3" for 61 ECE students on 24.03.2025.
- 4.M.Shakthiswaran, M.Heresh and team (ECE department) conducted a workshop on "Front End Development" from 2.8.2024 to 6.08.2025
- 5.Dr.Phemina Selvi Murugesan, conducted a Quality Improvement Program on "Enhancing Qualities for Leadership Skill" for 180 ECE students on 05.08.2024



## EXTENSION/NSS ACTIVITIES

- 1.Mr.Srimannarayanan, organized various events on the occasion of "World Radio Day" on 13.02.2025.
- 2.Mr.R.Sambathkumar, coordinated events on the occasion of "International Day of Happiness" on 20.03.2025.



- 3.Dr.R.Sofia, organized various events on the occasion of "World Heritage Day" on 24.04.2025
- 4.ECE students enthusiastically participated in Tamil speech competitions, essay writing, dancing competitions, traditional cooking events, folk dance events and art exhibitions.
- 5.Sherley Suzane Tremot, actively participated in Bharatanatyam and dancing competitions



## INDUSTRIAL INTERACTION / INTERNSHIP AND TRAINING

- 1.Kaivalya Tech Services Pvt Ltd, offered internship to 5 ECE students from 05.05.2025 to 16.05.2025
- 2.Corner Stone Engineering Solutions, offered an internship opportunity to 8 ECE students from 19.05.2025 to 30.05.2025.

3. On 20th March 2025, 31 ECE students went on an industrial visit to Lenovo.



4. On 27th February 2025, 97 ECE students went on industrial visit to Ariyath IT Technologies.

### ACTIVITIES OF THE DEPARTMENT

1. Dr. Malaya Kumar Nath, Assistant Professor, NIT Puducherry, delivered guest lecture on “Medical Signal Processing Using MATLAB” on 24.02.2025 to IV-YR ECE students.

2. Mr. P. Govidhan, AI Engineer, from HP-INC Bangalore, delivered guest lecture on “Agentic AI Automated Engineering” on 28.03.2025 to 130 ECE students.



3. Dr. T. Sivakamai, Professor, from MSEC Chennai, delivered guest lecture on “Throughput and Latency Analysis of Satellite Networks in NS-3” on 24.03.2025 to 61 students.

4. Dr. M. Jayakumar, Dean Placement, conducted a code of conduct program titled “Personal Risk in Professional Ethics” on 24.3.2025 organized by Mrs. Zarina Begum to 123 ECE students.



5. Dr. S. Arunmozhi, HOD/ECE, conducted a code of conduct program titled “Educator’s Responsibility” on 07.03.2025 organized by Mrs. V. Mohana



### INNOVATION ACTIVITIES:

1. Dr. S. Arunmozhi, HoD/ECE, organized the “World Creativity and Innovation Day celebration” on 21.04.2025

2. Department of ECE conducted “Innovation & Entrepreneurship Outreach Program in Schools” from 26.02.2025 to 28.02.2025.

3. Department of ECE conducted Workshop on “Effective Sales and Marketing Strategies for Entrepreneurs” from 17.02.2025 to 21.02.2025.

4. Department of ECE conducted Workshop on “Design Thinking, Critical Thinking and Innovation Design” on 26.02.2025

### RESEARCH INITIATIVES

1. Dr. S. Vinoth, published SCI journal papers on “Gas Sensing Properties, Thin Films, and Nanoparticles”.

2. Dr. R. Sofia, published papers on “AI-powered systems and cyber security frameworks”.

3. Mr. R. Sambathkumar, published a paper on “precision strain methodology for material characterization”

### CONFERENCE PRESENTATIONS

1. Our ECE Faculty, presented 30+ research papers at International conferences including ICSCAN 2024, ICETCEA 2025, and other prestigious venues under various topics.

### GRANTED PATENTS

1. Department of ECE was granted patents for the “Smart Beacon System for Classroom Communication”, “Smart Luggage Tracking Tag”, and “Smart LED Street Light System”.

2. Dr. R. Sofia’s patent on “AI-Powered Unmanned Aerial Vehicle (UAV) for Persistent Aerial Surveillance In Military Zones” has been published

### PLACEMENT ACTIVITIES

1. DELPHI TVS hired 58 students with a package of Rs. 3,75,000.

2. SUTHERLAND recruited 51 students, offering a package of Rs. 3,00,000.

3. LAKSH SOURCE employed 31 students with a package of Rs. 3,00,000.

4. INTEGRA selected 28 students, providing a package of Rs. 2,50,000.

5. PALLE TECHNOLOGIES hired 10 students with a package of Rs. 3,00,000.

6. TCS recruited 10 students, offering a package of Rs. 3,36,000.

7. LITERACT employed 9 students with a package of Rs. 3,60,000.

8. VEE TECH selected 9 students, providing a package of Rs. 3,00,000.

9. QSPIDER hired 9 students with a package of Rs. 3,00,000.

### AWARDS AND ACHIEVEMENTS

1. Gandhiraj T (IV-A) is the Winner of CAPGEMINI “TECH4POSITIVE” Future Challenges - Youth Voices Edition Competition

2. Nandhi and Team (IV-A) won the 1st Prize in 4th National Level Symposium “ELITECCOM 2025” organized by IETE.



3. Mohammed Shabeer and Team (III/A) won the 2nd Prize in “Christ Tech 2025” held at Christ College of Engineering and Technology.

4. N. Niraimathy. P (II/B) has been awarded the NPTEL Elite Certificate from IIT-Kharagpur



5. Trisha. VL and Team (III/C) has been received the IIC Innovation Ambassador Certificate upon completing the 80-hour course.

6. K. Reventh (IV-A) served as a Resource Person for a workshop at Jerusalem Engineering College, Chennai



7. Two Teams have been selected for the UIP Y16 Internship at Unisys Technologies.

## FACULTY DEVELOPMENT ACTIVITIES

1. Multiple faculty members participated in professional development programs focused on emerging technologies such as AI, ML, IoT, and quantum computing
2. Faculty members actively participated in training programs on Outcome-Based Education(OBE)



3. All department Faculties were engaged actively in training on innovative teaching methodologies and ICT tools training.

4. Faculty members took part actively in workshop focused on research methodology and patent filing procedures.



## EDITORIAL TEAM

### *Faculty In-Charges*

Dr.S.ARUNMOZHI, Professor & Head/ ECE

Mr.V.RAJESH, Sr. Grade AP/ ECE

Mrs.V.MOHANA, AP/ ECE

### *StudentEditors*

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Thank you