



J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

NAAC 'A' Grade & NBA Accredited | Affiliated to Anna University

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NEWS LETTER

JUN 24 - NOV 24



**DEPARTMENT OF
ELECTRONICS AND COMMUNICATION
ENGINEERING**

ABOUT



**J.N.N INSTITUTE OF
ENGINEERING**
AUTONOMOUS

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

- J.N.N Institute of Engineering has been at the forefront of imparting high-quality technical education in the state of Tamil Nadu. With state-of-the-art infrastructure in all branches of engineering, dedicated and qualified staff, a highly conducive environment for the teaching-learning process, and a lush green campus, J.N.N stands out as a professionally managed institution. The institute has consistently produced outstanding engineers who have excelled in their careers, occupying responsible positions in some of the best-known enterprises in India.
- Promoted by the Alamelu Ammaal Educational Trust, formed in memory of the Chairman's mother, J.N.N Institute of Engineering is located just 25 km away from the city of Chennai. It has well-connected routes frequented by city buses, making it accessible for students, staff members, the community, and visitors who enjoy the aesthetic view of the college with its green color shades.
- The institution provides university-level education through a wider and dynamic network, catering to the demands of both university-level education and the economic development of the region, with wider opportunities. The location and range of academic offerings at both UG and PG levels have lifted the intake capacity regionally and nationally. The infrastructural development also portrays enrollment growth.
- J.N.N strives to impart high patterns of discipline with futuristic techniques through dedicated staff members. It is a place for making students technologically superior and ethically strong. The environmentally friendly place of opportunities enhances skills and personal development. J.N.N has also signed Memorandums of Understanding with top-level industries and training providers to develop new skills and abilities.



VISION

- Cultivating innovative and entrepreneurial Electronics and Communication Engineering graduates to ethically address global challenges through quality teaching and learning practices.

MISSION

- To facilitate a state-of-the-art teaching-learning process, imparting comprehensive knowledge in electronics and communication engineering and related interdisciplinary areas.
- To foster a sense of curiosity, critical thinking and ethical practices in students, preparing them for a continuous learning.
- To instill innovative team work and industry collaboration for enhancing entrepreneurial skills, employability and research capabilities in graduates.

PROGRAMME OUTCOMES

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.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO'S)

PEO1: Our graduates will have skills to become successful in academics, industries, or as entrepreneurs.

PEO2: Our graduates with a research inclination will be solving various complex social issues using advanced tools and technologies.

PEO3: Our graduates will practice engineering with ethics, human values, and environmental consciousness.

LEADERSHIPS

CHAIRMAN



Shri. S. Jayachandran B.Sc., B.L
Founder & Chairman,
J.N.N Group of Institution.

We are committed in opening up high quality tertiary education to students and to provide opportunity to acquire, understand and apply disciplinary and inter-disciplinary knowledge as well as related skills and attitudes, to think rationally and to enhance their personal development. Situated in the capital city of Tamil Nadu, our college bridges the education and values in its relationship with business, government, research organizations and universities. I would like to reaffirm my sincere personal commitment to help each of you to succeed your academic endeavors. I would like to reaffirm our sincere personal commitment to help each to succeed in your academic endeavors. I heartily welcome our students and wish them the very best for a successful and glorious future.

VICE CHAIRMAN



Mr. Naveen Jayachandran
Vice-Chairman,
J.N.N Group of Institutions.

Our motto, “Learning Today. Leading Tomorrow”, permeates every aspect and activity at J.N.N. Over the past 12 years, J.N.N Institute of Engineering has successfully imbibed several of the proven best practices from the best of engineering institutions around the world, adapted them to make them better suited to the ground realities and introduced many of its own innovations in engineering education. Together, these have ensured that an educational experience at J.N.N Institute of Engineering is truly transformational for thousands of aspiring young transformational for thousands of aspiring J.N.N Institute of Engineering. has been very proactive in recognizing the global and national trends in shift in the technical landscape and has been pioneering several innovations in technical education.

PRINCIPAL



Dr. K. Ganesan

At J.N.N Institute of Engineering, we believe in providing the best learning experience through an experiential learning process that has been devised and drawn up by the management, faculty members, and administrators together. We have a common purpose mindset and language that permeates throughout the whole institution, and we are guided by four key principles:

- (i) Assure the best learning outcomes through strategic planning.
- (ii) Create seamless service through engineered operational quality.

(iii) Build a strong relationship among the stake holders.

(iv) Delight the stakeholders with personalized care of

service quality. We are delighted to offer our services to prospective students and other stakeholders. The management, faculty members, and staff are committed to contributing significantly to the growth and support of our students to help them reach the zenith of their prospective professional career and personal life. We are always here to address your queries and provide you with the best education possible.

HEAD OF THE DEPARTMENT



Dr. D. Joseph Jeyakumar

HOD OF ECE DEPT.

Dear Students, Faculty, and Readers, It is my pleasure to share updates and achievements from the Department of Electronics and Communication Engineering (ECE). Our Department continues to uphold its commitment to academic excellence, innovative research, and fostering a vibrant learning environment. Thank you for your continuous support and enthusiasm together, we can achieve greater heights

“INNOVATION IS THE ABILITY TO SEE THE CHANGE AS AN OPPORTUNITY – NOT A THREAT”

-STEVE JOBS

S.NO	FACULTY NAME	DESIGNATION
1.	Dr. D. Joseph Jeyakumar	HOD & Professor
2.	Mr. Mariselvam M	Assistant Professor
3.	Ms. Malathy N	Assistant Professor
4.	Ms. Smitha P. B	Assistant Professor
5.	Ms. Mullai Kodi C	Assistant Professor
6.	Dr. Anand Kumar B	Assistant Professor
7.	Ms. Sowmya S	Assistant Professor
8.	Ms. Kavitha V	Assistant Professor
9.	Dr. Thanigaivel G	Assistant Professor

Department Achievements: IoT-Based Healthcare Systems and Professional Growth Initiatives



The Department of Electronics and Communication Engineering, in collaboration with the Department of Biomedical Engineering, successfully conducted a one-week **Faculty Development Programme (FDP)** from **August 26, 2024, to August 31, 2024**, titled *“IoT-Based Healthcare Systems for Smart Cities and Homes with a Special Emphasis on Senior-Friendly Living”*. This highly anticipated event was held **offline** at the Kannigaipair

campus near Redhills, Chennai, Tamil Nadu.

The FDP, coordinated by **Dr. Anand Kumar**, provided an in-depth exploration of the role of **Internet of Things (IoT)** in revolutionizing healthcare systems, particularly in the context of smart cities and homes. The programme emphasized **senior-friendly living**, showcasing how IoT technologies can be integrated to create a safer and more

comfortable environment for the elderly.



The event was co-coordinated by **Mr. Naveen Prasanth** and **Dr. D. Joseph Jeyakumar**, Head of the Department of Electronics and Communication Engineering. Faculties and research scholars from both the **Electronics and Communication Engineering** and **Biomedical Engineering** departments played a key role in organizing and facilitating the sessions. The programme attracted participants from

across the country, with attendees from various esteemed engineering institutes and institutions from other states and Union Territories of India.

This FDP aimed to foster a deeper understanding of IoT technologies, their practical applications, and the significant impact they can have on improving healthcare and quality of life, especially for senior citizens in modern smart environments.



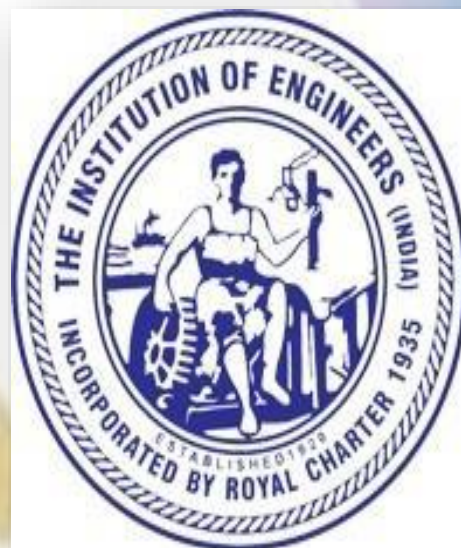
Professional Bodies and Industry Collaborations

In addition to the success of the FDP, the department has made remarkable strides in fostering strong ties with industry and professional organizations.

- **Number of MOUs (Memoranda of Understanding): 8**
- **Number of Industry-Supported Labs: 3**

These collaborations have provided the department with

valuable resources, state-of-the-art infrastructure, and industry exposure, which significantly benefit both students and faculty in keeping up with the latest technological advancements and industry standards. The department continues to work towards enhancing its educational offerings and providing students with practical, hands-on learning experiences, preparing them for the ever-evolving technological landscape.

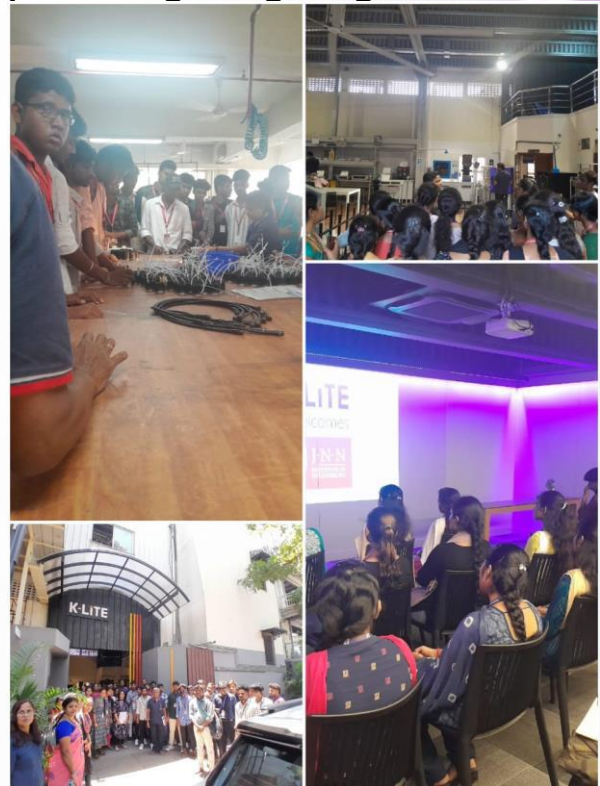


Industrial Visit to K-Lite Industries by ECE and VLSI Students

In an effort to bridge the gap between academic learning and industry practices, students from the second, third, and fourth years of the Department of Electronics and Communication Engineering (ECE) and the VLSI departments embarked on an enriching industrial visit to K-Lite Industries. The visit, which took place from September 11 to September 12, 2024, offered a unique opportunity for the students to explore cutting-edge advancements in lighting technology and gain firsthand exposure to the manufacturing processes involved.

The primary focus of the visit was to explore the intersection of electronics and VLSI technologies in modern lighting solutions. Students were able to see how the integration of advanced electronics, sensors, and microelectronics contributes to the design and optimization of energy-efficient and smart lighting systems. Additionally, they observed live

demonstrations of the production line and learned about the various stages of designing, testing, and producing lighting solutions.



The visit was highly interactive, with students engaging in hands-on learning activities and discussions with industry experts. The exposure to real-world applications of their academic knowledge provided valuable insights into the evolving landscape of the electronics and lighting industries. Students were able to better understand the

practical challenges, innovations, and opportunities that exist in the field, making this industrial visit an enriching experience that enhanced their technical knowledge and professional growth.

This industrial visit further solidified the department's commitment to providing students with practical learning opportunities and preparing them for the challenges of the rapidly advancing technology sector.

Department Activities: Academic Year 2023-2024

The **Department of Electronics and Communication Engineering (ECE)** has been actively involved in various academic and professional development initiatives during the academic year **2023-2024**. These events and activities provided a platform for both students and faculty to enhance their knowledge, skills, and industry exposure. Below is an overview of the department's key activities for the year:

- **Guest Lectures:** 6
- **Seminars:** 3
- **Workshops:** 2
- **Industrial Visits:** 4
- **Placement and Training Programs:** 4

These activities contributed significantly to the academic growth and practical exposure of students, while also strengthening the department's engagement with professionals and industry leaders. The department's continued efforts in offering diverse learning opportunities showcase its commitment to maintaining high educational standards.

Department Faculty Achievements: 2024-2025

Our faculty members have made significant strides in both research and academic contributions, further enhancing the reputation of the department. Some of their notable achievements for the year **2024-2025** include publications, patents, and academic advancements:

Papers and Publications

- **Dr. Anandkumar, Dr. Muthu Thangaraj, Dr. Merlyn Sujatha, Naveenprasanth, and Sowmya Senthilkumar** published the paper “*An Examination of the Most Recent Developments in Electronics for Communication Engineers*” in the **International Journal of Scientific Research in Engineering and Management (IJSREM)**, Volume 08, Pages 1-14, DOI: 10.55041/IJSREM37141, in **2024**.
- **Sowmya Senthilkumar, Dr. Muthu Thangaraj, Dr. Merlyn Sujatha, Jain Caroline, Naveenprasanth** published “*Exploration of Artificial Intelligence in Electronic Gadgets*” in the **International Journal of All Research Education and Scientific Methods (IJARESM)**, Volume 12, Issue 7, July 2024. ISSN: 2455-6211.
- **M. Murali, G. Ashok, P.G. Kuppusamy, Dr. D. Joseph Jeyakumar, M. Mariselvam** published “*Artificial Intelligence (AI) enable advanced and accurate diagnostics of eye health station for critical eye conditions*” in the **World Journal of Advanced Research and Reviews**, 2024. DOI: [10.30574/wjarr.2024.23.3.2735](https://doi.org/10.30574/wjarr.2024.23.3.2735).
- **M. Murali, Dr. P.G. Kuppusamy, Dr. D. Joseph**

Jeyakumar, M. Mariselvam, G. Ashok published *“Implementation of an Automatic and Real-Time Detection of Glucose Levels based on Machine Learning Techniques”* in the **International Journal of Novel Research and Development (IJNRD)**, Vol.9, Issue 8, Pages C1-C7, August 2024. Available at: [IJNRD Paper](#).

- **Lourduraj, Jain, Thangaraj, Dr. Sujatha, Dr. Senthilkumar**, published *“An Updated Analysis of the Application of Artificial Intelligence in Everyday Situations”* in the **International Journal of Scientific Research in Engineering and Management (IJSREM)**, Volume 08, Pages 1-3, DOI: 10.55041/IJSREM36553, in 2024.
- **Ms. Smitha P.B** is currently pursuing a 6-month **PG course in Artificial Intelligence and Data Science**, conducted by the **AICTE-QIP Program at IIT Kottayam**, in 2024.

Ph.D. Achievement

- **Dr. Malathy N** successfully defended her Ph.D. thesis on **October 21, 2024**, and was awarded the **Ph.D. degree** by **Anna University**. This remarkable achievement highlights the department's ongoing dedication to fostering advanced research and academic excellence.

These significant achievements not only highlight the department's commitment to research and academic growth but also demonstrate the faculty's dedication to pushing the boundaries of knowledge and contributing to advancements in technology and engineering.

Our faculty members continue to excel in both their academic and professional endeavors, bringing recognition to the department through their remarkable contributions in teaching, research, and industry engagement. Some of the notable achievements include:



Mr. M. Mariselvam, Assistant Professor, Department of Electronics and Communication Engineering, was honored with the **Best Teacher Award 2024** by the **Institution of Engineers (India)**, Thiruvallur Local Centre. This prestigious award was presented to him at a ceremony held at **MGR University**, recognizing his outstanding teaching abilities, academic contributions, and commitment to the development of future engineers.



- **Dr. Malathy N**, Assistant Professor, Department of Electronics and Communication Engineering, received the **Societal Green Transition Award** at **IGEN 2024** on **December 14, 2024**, at the **Rosette Convention Center**, Anna University, Chennai. This esteemed recognition highlights her significant contributions toward sustainable and eco-friendly technological advancements, aligning with her dedication to advancing green technology in the engineering field.



- **Dr. Anand Kumar**, Assistant Professor, was recognized for his outstanding participation in the **IGEN Industry Challenge Meet 2024**, held on **December 14th and 15th, 2024**, at the **Rosette Convention Centre**, Anna University, Chennai. His proactive involvement in addressing key industry challenges and his innovative contributions earned him enrollment in the **99-day IGEN Industry Challenge Project**, where he will collaborate with industry experts to tackle real-world engineering challenges.
- **Ms. Smitha P.B** successfully completed the **6-month PG course in Artificial Intelligence and Data Science**, conducted by the **AICTE-QIP program** at **IIT Kottayam** in **2024**. This achievement underscores her commitment to enhancing her knowledge in cutting-edge technologies, further strengthening the department's focus on AI and data science.

Student Achievement: 2024-2025

Our students continue to shine in both academic and extracurricular arenas, demonstrating exceptional leadership and contributions to societal causes. One of the key student achievements this year includes:

- **Ms. Amirthaa S**, a student from the department, was honored with the **Sustainability Influencer Award** at **IGEN 2024** on **December 14, 2024**, held at the **Rosette Convention Center**, Anna University, Chennai. This recognition celebrates her impactful contributions toward promoting **sustainability** and raising environmental awareness. Her dedication to sustainability issues reflects the department's emphasis on producing socially responsible engineers who can make a difference in the world.



EDITORIAL BOARD

Academic Year	Editorial Members
JUNE 2024- NOV 2024	Faculty Coordinators: Ms. S. Sowmya Student's Convenors: 1. Abirami. A, 4 th year 2. Imran. U, 3 rd year 3. Shamuvel. V, 2 nd year