



TECH HERTZ'23

NEWS LETTER

DEC 2022 - FEB 2023



**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.



DEPARTMENT'S VISION & MISSION

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.
- TO INCULCATE ABILITY FOR DELIVERING NOVEL SOLUTIONS BY TAKING

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 interdisciplinary 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 endeavours. I would like to reaffirm our sincere personal commitment to help each to succeed in your academic endeavours. I heartily welcome our students and wish them the very best for a successful and glorious future.

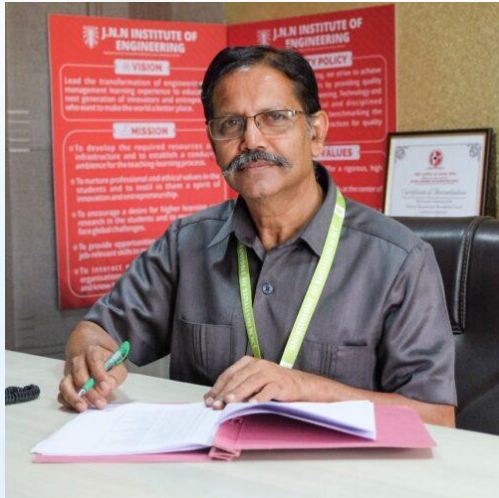
VICE CHAIRMAN



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 J.N N Institute of Engineering. has been very proactive in recognising the global and national trends in shifts in the technical landscape and has been pioneering several innovations in technical education. J.N.N is also embracing the latest technologies, teaching methodologies, well equipped facilities and understands the aspirations of the student community.

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

LIST OF FACULTY

S.NO	NAME OF THE FACULTY	QUALIFICATON	DESIGNATION
1.	Dr. D. Joseph Jeyakumar	M.E, Ph.D.	Professor
2.	Mr. U. Siddharth Nambi	M.E	Associate Professor
3.	Mrs. R. Nithya	M.E	Assistant Professor
4.	Mr. M. Mariselvam	M.E	Assistant Professor
5.	Mrs. N. Malathy	M.E	Assistant Professor
6.	Mrs. P.B. Simtha	M.E	Assistant Professor
7.	Mr. K.T. Pannerselvam	M.E	Assistant Professor
8.	Mrs. Mullaikodi	M.E	Assistant Professor
9.	Mr. G. Ayyapan	M.E	Assistant Professor
10.	Dr. J. Vijay Anand	M.TECH, Ph.D.	Associate Professor
11.	Mr. J. Praveen Kumar	M.E	Assistant Professor
12.	Ms. B. Shanmathi	M.E	Assistant Professor

EVENTS

Newsletter Update: Key Workshops, Seminars, and Training Programs

1. Workshop on Chip Design and Fabrication

Date: 5th December 2022

The students had an insightful session on Chip Design and Fabrication, focusing on VLSI gate-level modeling and chip fabrication processes.

Mr. Krishna Kumar, CEO of Skill up by Simplilearn, guided the students through the functioning of modern chips, offering a detailed understanding of this complex field. The workshop provided a valuable hands-on learning experience, enabling students to grasp key concepts in chip design.

2. Seminar on Higher Education Awareness Program

Date: 23rd February 2023

On this day, students participated in a seminar conducted by the Department of Training and Placement & Higher Education Cell, JNNIE. The seminar aimed at offering valuable insights into studying abroad and the numerous academic and professional benefits associated with it. Experts discussed various international opportunities and strategies for students looking to expand their horizons through higher education abroad.



3. Add-On Course: Audio Signal Processing using MATLAB

Date: 23rd January 2023 – 31st January 2023

This intensive course on Audio Signal Processing was taught by Dr. Swarna Ravindra babu, Founder of COOVUM Smart System & Services Pvt. Ltd. The course, which was part of the Digital Signal Processing curriculum, introduced students to MATLAB tools and techniques essential for working with audio signals. By the end of the course, students had a strong foundation in processing and analyzing audio data.



4. Add-On Course: Analog and Digital Modeling using CADENCE

Date: 8th January 2023 – 16th January 2023

In this course, students learned the intricacies of Analog and Digital Modeling using CADENCE, a key software in the VLSI and Chip Design domains. Mr. Krishna Kumar, CEO of Skill up by Simplilearn, provided expert guidance, helping students understand the principles behind chip design and the modeling process necessary for creating efficient digital circuits.



5. AMCAT Assessment and Pre-Placement Training

Date: 20th February 2023

As part of their career preparation, students participated in an AMCAT Assessment conducted by the AMCAT team. This computer-adaptive test helped assess students' communication, logical reasoning, and quantitative skills—key areas for potential employers. Additionally, the NIIT team conducted a Pre-Placement session, focusing on campus hiring drives and offering insights into how students can prepare for job placement activities. These training sessions played a crucial role in enhancing students' employability and readiness for the professional world.

EXTRA CURRICULAR ACTIVITY

ANNUAL SPORTS DAY (TRIUMPH) - A GRAND CELEBRATION

Date: 24th February 2023

Our college management successfully organized the much-awaited Annual Sports Day, *TRIUMPH*, on 24th February 2023. The event was a spectacular display of talent, teamwork, and sportsmanship. Students from various departments participated in a range of exciting events, showcasing their athletic skills and competitive spirit.



We were honored to have Dr. Suresh Babu, Chairman of WAKOINDIA, as the esteemed Chief Guest for the occasion. Dr. Babu addressed the gathering with motivating words, emphasizing the importance of physical fitness and sports in enhancing both mental and physical well-being. His presence added immense value to the event, inspiring students to strive for excellence in all spheres of life.

The day was filled with energy, enthusiasm, and a sense of camaraderie, making *TRIUMPH* a memorable experience for everyone involved. Congratulations to all the participants and winners for their outstanding performances!

WEBINAR ON INTELLECTUAL PROPERTY RIGHTS

Date: 9th January 2023

Students participated in an insightful webinar on Intellectual Property (IP), which includes creations of the mind, artistic works, designs, symbols, names, and images used in commerce. The session was conducted under the NIPAM mission by Mr. Shailendra Singh, Examiner of Patents & Design (NIPAM Officer) from the Ministry of Commerce and Industry, DPIIT. The webinar provided valuable knowledge about IP rights, helping students understand their significance in today's innovation-driven world.

ENTREPRENEURSHIP DEVELOPMENT CELL ACTIVITIES

1. SESSION ON ENTREPRENEURSHIP DEVELOPMENT

Date: 2nd December 2022

The Entrepreneurship Development Cell (EDC) organized a session titled "*The Role of Entrepreneurship Development and Be a Part of the Solution, not a Part of the Pollution.*" Dr. T. Srihari, Professor

and Coordinator of the EDC, led the session, where students learned the importance of entrepreneurship in creating solutions to societal challenges. The event emphasized how aspiring entrepreneurs can contribute positively to the environment and society through sustainable practices.

2. STARTUP IDEAS AND ENTREPRENEURSHIP TALK

Date: 16th February 2023

Dr. Sharmila Nagarajan, Founder and Chairman of ICCDF from Startup Tamil, conducted an event that encouraged students to share their startup ideas and consider entrepreneurship as a career option. The session aimed to inspire the next generation of entrepreneurs, offering guidance on how to transform ideas into successful businesses. Students were motivated to explore innovative paths and take bold steps toward building their own ventures.



EDITORIAL BOARD

Editorial Members

Faculty Coordinators:

Mr. M. Mariselvam

Student's Convenors:

1. Godson J, 3rd Year
2. Valluru Mahesh Babu, 4th Year
3. David Abishek. M, 2nd Year
4. Chilakuru OmPrakash Reddy, 1st Year