JNN

TECH HERTZ'21

NEWS LETTER

DEC 2020 – FEB 2021

ECE

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.

PROGRAMME SPECIFIC OBJECTIVES (PSO)

PSO1: Analyze and develop solutions in domains like IOT, Embedded, VLSI and other emerging technologies.

PSO2: Understand and architect wired and wireless analog and digital communication systems and products.

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 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.

From The Desk of Principal

Since its inception in the year of 2008, the college has been striving towards maintaining high academic standards and excellence in many fields. We are committed to provide our students with a wide variety of opportunities in order to help them attain their highest potentials.

As the principal I am proud of my students who have achieved high standards in academics and various co-curriculum activities. Our objective is to turn the challenges of the changing world into wisdom of opportunity for the future. We have a dedicated team of faculty, striving hard to providethe students with the latest knowledge and skill that would help them to stand out in this fiercely competitive world. Our campus is vibrant with energy, enthusiasm and activity.

Dr. G. Gunasekaran

HEAD OF THE DEPARTMENT

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 is 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

Dr. D. Joseph Jeyakumar

HOD OF ECE DEPT.

LIST OF FACULTY

S.NO	NAME OF THE FACULTY	QUALIFICATON	DESIGNATION
1.	Dr. D. Joseph Jeyakumar	M.E, Ph.D.	Professor
2.	Dr. A.V. Mayakannan	M.E, Ph.D.	Professor
3.	Mr. U. Siddharth Nambi	M.E	Associate Professor
4.	Mrs. N. Revathy	M.E	Associate Professor
5.	Mrs. R. Nithya	M.E	Assistant Professor
6.	Mr. M. Mariselvam	M.E	Assistant Professor
7.	Mr. R. Partheepan	M.E	Assistant Professor
8.	Mr. M. Karthikprabhu	M.E	Assistant Professor
9.	Mr. J. Praveen Kumar	M.E	Assistant Professor
10.	Mrs. N. Malathy	M.E	Assistant Professor

S.NO	NAME OF THE FACULTY	QUALIFICATON	DESIGNATION
11.	Mr. S. Tamilvanan	M.TECH	Assistant Professor
12.	Mrs. R. Chandralekha	M.E	Assistant Professor
13.	Ms. B. Shanmathi	M.E	Assistant Professor
14.	Ms. S. Soundarya	M.E	Assistant Professor
15.	Ms. D.V. Swathi	M.E	Assistant Professor
16.	Ms. S. Indria	M.E	Assistant Professor
17.	Mrs. A. Evangelin Ebenezer	M.E	Assistant Professor
18.	Mrs. R. Rajarajeswari	M.E	Assistant Professor
19.	Mrs. T. Indhumathi	M.E	Assistant Professor
20.	Ms. C. Ramya	M.E	Assistant Professor

Add-on Course on Trends in Recent Techniques to Promote Digital Communication

Date: 18th January 2021
Speaker: Dr. D. Joseph Jayakumar, Professor, J.N.N Institute of Engineering

In a world increasingly driven by digital platforms, understanding **digital communication** is more important than ever. On 18th January 2021, an **online Add-on Course** was held on **Recent Techniques to Promote Digital Communication**. The course was led by **Dr. Joseph Jayakumar**, Professor at **J.N.N. Institute of Engineering**, who delved into the latest trends and tools that are transforming how we communicate in the digital age.

Dr. D. Joseph Jayakumar provided an in-depth overview of cutting-edge techniques and tools used to promote digital communication, such as **social media marketing**, **email campaigns**, **SEO strategies**, and **video conferencing technologies**. The course also explored **emerging digital communication trends**, like the increasing use of **virtual reality (VR)** and **augmented reality (AR)** to enhance communication experiences.

One key focus of the course was on **digital branding**, where Dr. Jayakumar discussed the importance of building a **strong online presence** for businesses to engage with customers in meaningful ways. Students were encouraged to think critically about how **digital communication** can not only promote business products but also improve customer relationships and drive brand loyalty.

Through the course, participants gained valuable insights into how they can leverage **digital tools** and **innovative communication techniques** to contribute to the future of digital marketing and business promotion. By understanding the latest trends, students were equipped with the knowledge to enhance their own digital communication strategies, both in their personal projects and professional careers.

Guest Lecture on Recent Hardware Testing Tools

Date: 9th February 2021
Speaker: Mr. S. Alagu Nellai Kumar, CEO, AIRASK TECHNOLOGY PVT. LTD.

On 9th February 2021, a **Guest Lecture** was conducted by **Mr. S. Alagu Nellai Kumar**, CEO of **AIRASK TECHNOLOGY PVT. LTD.**, on the **recent advancements in hardware testing tools**. This session provided students with critical insights into the tools and technologies currently shaping the landscape of hardware development and testing.

Mr. Kumar discussed a range of **hardware testing tools** that are essential for engineers working in fields like **electronics**, **embedded systems**, and **IoT**. He introduced students to the latest **automated testing** systems, highlighting their role in ensuring the **accuracy** and **reliability** of hardware components before they are deployed in real-world applications. The lecture covered key aspects such as **signal analyzers**, **oscilloscopes**, and **multimeters**, along with their advanced counterparts used for testing high-frequency devices and **microelectromechanical systems (MEMS)**.

In addition, Mr. Kumar shared insights on how businesses in the **hardware industry** are adopting **test automation** to reduce costs, improve efficiency, and meet the ever-increasing demand for faster product development cycles. The lecture emphasized the need for skilled professionals who are well-versed in the use of modern testing tools to ensure the performance and quality of hardware products.

Students were encouraged to explore various testing tools and consider how they can be used in their own projects, ensuring the reliability and quality of hardware systems. The session provided valuable knowledge for students pursuing careers in **hardware engineering**, **electronics**, and **embedded systems**, equipping them with the skills necessary for success in a rapidly evolving industry.

The period from December 2020 to February 2021 saw a series of highly informative online events designed to equip students with knowledge and skills relevant to today's technological advancements. From learning about **Arduino** and **forecasting future trends** to exploring the latest in **digital communication** and **hardware testing tools**, these workshops, courses, and lectures have provided students with a well-rounded perspective of the technologies shaping the future.

As our students continue to engage with experts from diverse fields, these events are a reminder of the importance of staying updated with the latest industry developments and emerging trends. We look forward to continuing to provide such valuable learning experiences and support our students in becoming leaders in the world of technology and innovation. Stay tuned for upcoming workshops and lectures!

Fun Fact about MEMS:

Did you know that MEMS (Microelectromechanical Systems) can be found in everyday devices like your smartphone? These tiny sensors and actuators, often smaller than the width of a human hair, help with things like detecting orientation, enabling features like screen rotation, and even powering the touch response on your screen! MEMS technology is behind the magic of a wide range of devices, from fitness trackers to car airbags, making them a true unsung hero of modern innovation!
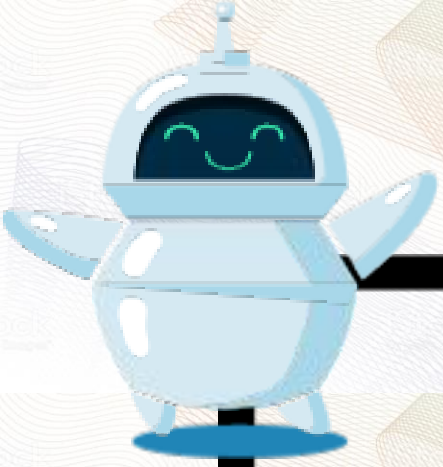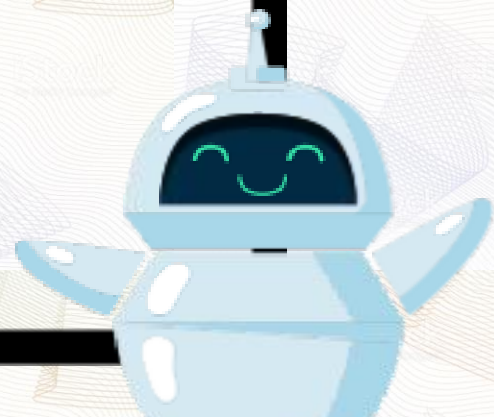
SCRAMBLE WORDS

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3. OIPTENR P___TE_
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9. RESINGVER RE_____G
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ANSWSERS

1. PRINTF
2. HEADERFILE
3. POINTER
4. EXPRESSION
5. SWITCHSTATEMENT
6. MISCOPERATOR
7. STRINGLENGTH
8. FILEHANDLING
9. REVERSING
10. SELECTIONSORT

EDITORIAL BOARD

Academic Year	Editorial Members
DEC-FEB 2020-2021	**Faculty Coordinators:** Ms. B. Shanmathi **Student's Convenors:** 1. Vignesh Rohith R, 4th year 2. Loghanandhini K, 3rd year 3. Godson J, 2nd year