JERUSALEM COLLEGE OF ENGINEERING

(An Autonomous Institution Affiliated to Anna University, Chennai)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VISION OF THE DEPARTMENT

Department of Electrical and Electronics Engineering is committed to produce high profile, **competent** and **disciplined** Engineers with **technical knowledge**, ethical leadership and **entrepreneurship** quality to contribute towards social transformation and nation building.

MISSION OF THE DEPARTMENT

M1: To make our graduates **highly competent** and experts in practical problem solving with abstract thinking skills.

M2: To endow students with high quality **technical knowledge** of electrical sciences through innovative teaching and research practices.

M3: To empower students with leadership and **entrepreneurship** quality, capable of providing their professional mettle with excellent communication skills.

M4: To encourage **cross border research** with innovative ideas and to impart the quality of life-long learning based on ethical values.

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PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1 : Graduates will be able to use broad knowledge of basic sciences and electrical engineering for ongoing learning, and to become a pioneer in providing solutions for technical problems.

PEO2 : Graduates will be able to use creative and critical reasoning skills to solve technical problems, ethically and responsibly, as a service to society.

PEO3 : Graduates will be able to adapt themselves to the constantly evolving technologies by pursuing higher studies in engineering and management.

PEO4 : Graduates will be able to demonstrate commitment while working with diverse groups and lead the organization competitively.

PEO5 : Graduates will be able to become an entrepreneur or be part of product and service based industries pertaining to electrical engineering .

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1: Able to utilize the knowledge of Power Electronics and Drives, Embedded systems, and Power Systems in an innovative, dynamic, and challenging environment.

PSO2: Can explore the scientific theories, ideas, and methodologies in renewable energy engineering, and use this erudition in their professional development and gain sufficient competence to solve the present and future energy related issues globally.

PSO3: Can understand and apply modern software tools for design, simulation, and analysis of electrical and electronic principles to model, install, test, and maintain power system enterprise and electrical vehicle applications.

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PROGRAM OUTCOMES (PO)

Engineering Graduates will be able to:

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 teamwork: 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.

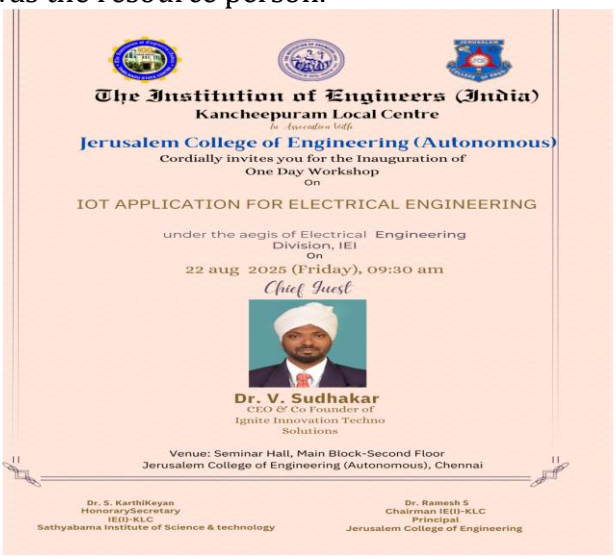
PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

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.

ELECTRICAL AND ELECTRONICS ENGINEERING

Inauguration of Association of EEE (AEEE) was conducted on 08.09.2025 at Auditorium. **Mr.T.K.S.Aravind, Program Management, Royal Enfield** was the resource person for the inauguration.

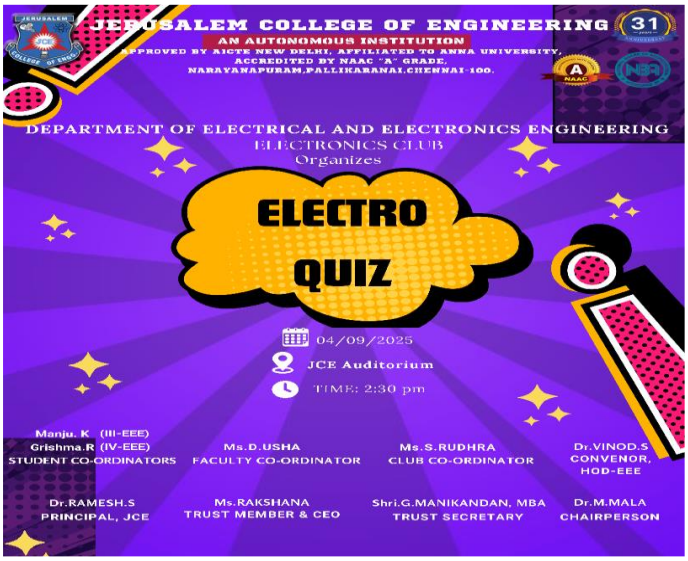
National Level Technical Symposium 'Technovanza 2025' was organized by the EEE students on 24.09.2025. **Prof Dr.Balaji Ramakrishnan, Director,NIOT and Dr.Tarun Chandrayadula, Associate Professor,Ocean Technology, IIT Madras** was the resource person.



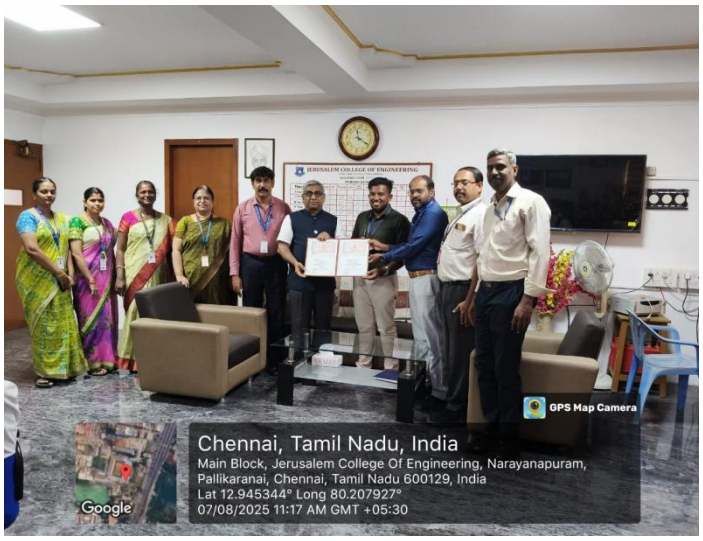
An Alumni Guest lecture was organized for EEE students on **"Circuits to cloud: An Electrical Engineer 's Data Pivot"** on 01.09.2025 at M209. **Mr.Anto Ajay** was the Resource Person.

One Day Workshop was organized for the EEE students on the topic **"IOT Applications for Electrical Engineering"** on 22.08.2025 at the seminar hall and the resource person was **Dr.V.Sudhakar,CEO & Co-Founder of Ignite Innovation Techno Solutions.**

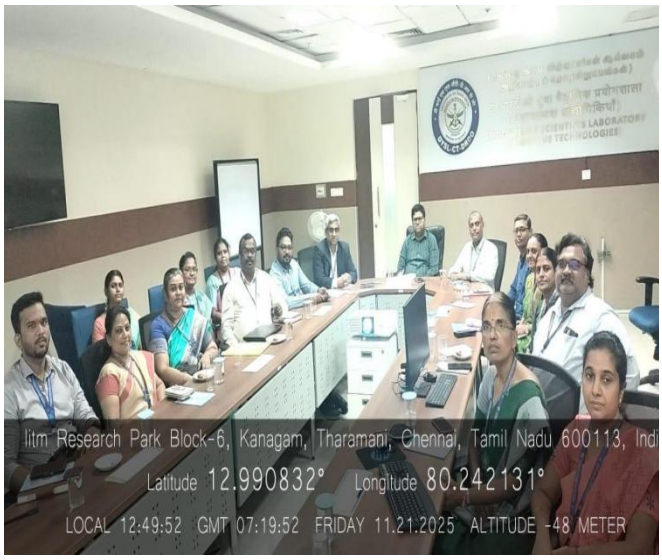
Interdepartmental Technical Event under Electronics Club **"Technical Connections"** was conducted by EEE students on 04.09.2025.The event was coordinated by **Ms.S.Rudhra .**



Interdepartmental Technical Event under Electronics Club **"Technical Quiz"** was conducted by EEE students on 04.09.2025.The event was coordinated by **Ms.D.Usha .**



Memorandum Of Understanding MOU was signed between **EEE Department, JCE and Pantech India Pvt Ltd**, Chennai on 08.07.2025 was the resource person.



Dr.N.Booma Professor,EEE Department presented project proposal in DRDO TEAM ,

An **Industrial Visit** was organized for the second, third and the final year EEE students to NTSC on 08.09.2025.

The **Parent-Teacher's Meeting** was conducted for the second, third and the final year EEE students on 20.09.2025.All the parents attended the meeting.

The Department of EEE received the IE(I) best Institution Award on 09.09.2025.

Dr.V.Jamuna received the chief faculty Advisor award,EEE Department received the Best Student Chapter Award, Ms.D.Usha received Best Faculty Advisor Award and student Ms.R.Grishma received Best Student Award from IE(I) on 09.09.2025.

Publications of Papers in Journals

Sl. No	Name of the Author	Title	Name of the Journal	Date
1	Ms.S.Sivajothi Kavitha,Ms.D.Usha,Dr. V.Jamuna	Solar-Powered boost -fly back converter for efficient warehouse monitoring'	International Journal of Informatics and communication Technology	Vol 14,No 3, December 2025.
2	Ms.D.Usha,Ms.S.Sivajothi Kavitha, Dr.V.Jamuna	Weed wise precision flora cutter bot	API Conference Proceeding Research Article	05th June 2025. https://doi.org/10.1063/5.0275978
3	Ms.D.Usha,Ms.S.Sivajothi Kavitha,Lavanya	Development and Implementation of a Cloud-controlled Chemigation System utilizing Fuzzy Logic Control	ICACITES 24 (International Conference on Advance Computing and ingenious technology in Engineering Science)	

Faculties as Resource Persons in Conferences

Sl. No	Name of the Resource Person	Title	Name of the Institution	Date
1	Dr.S.Vinod	IEEE Sponsored 11th International Conference on Electric Energy Systems(ICEES 2025)	SSN College of Engineering	23.08.2025
2	Dr.S.Vinod	11th International Conference on Energy, Control, Computing and Electronics Systems	Mohan Babhu University, Thirupathi	05.09.2025

Conference Attended by Faculties

Sl. No	Name of the Faculty	Title	Name of the Institution	Date
1	Ms.S.Rudhra,Dr.S.Vinod, Mr.J. Arul Prakash	AI Based Detection of Smartphone usage in Classroom Environment	IEEE Sponsored 11th International Conference on Electrical Energy Systems	22.08.2025
2	Ms.S.Rudhra,Dr.S.Vinod, Mr.J. Arul Prakash	IOT Enabled Real-Time Battery temperature Monitoring System for Electric Vehicles	IEEE Sponsored 11th International Conference on Electrical Energy Systems	22.08.2025

Sanctioned Funded Projects

Sl. No	Name of the Investigator	Title	Amount	Year applied
1	Mr.J.Arul Prakash	One Day Workshop on IOT Applications for Electrical Engineering	Rs,20,000/-	12.08.2025