



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.

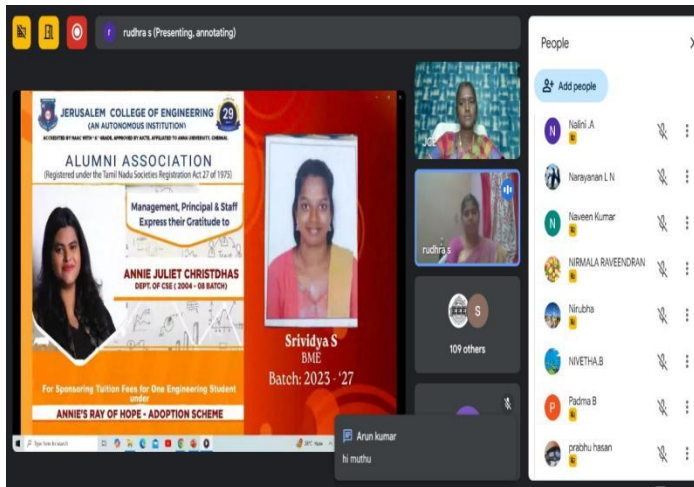
PO9: Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

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



Annual Alumni Meet was conducted in online platform on 27.01.2025 for the EEE Alumni students. The EEE Alumni Students from the inception till the passed out attended the meeting.



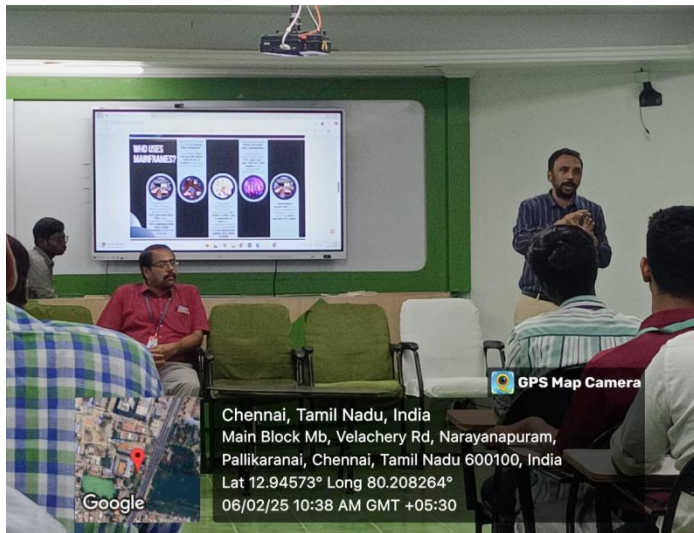
A National Level Technical Symposium "Technovanza" was organized by the EEE department on 15.02.2025. Prof. De. Balaji Ramakrishnan, Director, NIOT and Dr. Tarun Chandrayadula, Associate Professor, Ocean Technology, IIT Madras were the resource person.



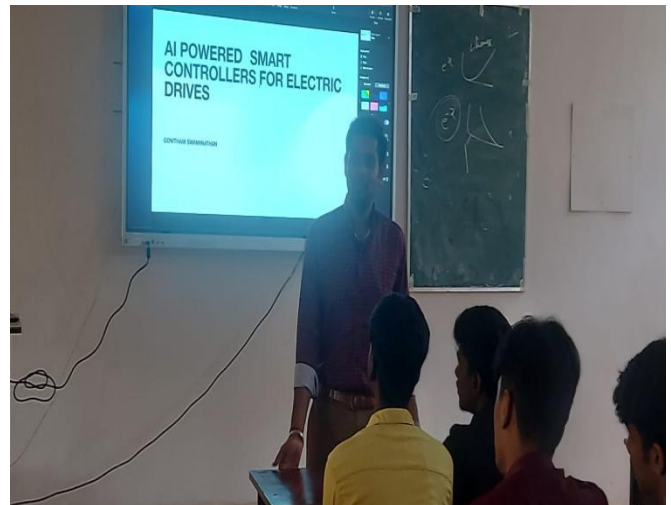
Guest Lecture on "**Embedded Systems**" was organized for the EEE students on 23.01.2025 at M209. **Mr. Harish, Senior Embedded Software Engineer, Visteon, Chennai** was the resource person.



Seminar was organized for the EEE students on the topic "**Exploring BIM Technology, Applications, and Future Directions**" on 17.03.2025 at M209 and the resource person was **Ms. Jayanthi Arumugam, Managing Director BIM Cadd** was the resource person.



Guest Lecture on **"Mainframes"** was organized for the EEE students on 06.02.2025 at Seminar Hall. **Mr.Eswar Prasad.C, Manager, Renault Nissan Tech, Chennai** was the resource person.



Seminar on **"Machine Learning"** for the EEE students on 26.01.2025 at M208..**MrGowtham Swaminathan ,MLOPS, Neison IQ, Chennai** was the resource person.



Guest Lecture on **"Career Guidance"** was organized for the School Students on 10.02.2025 at Auditorium, Karpaga Vinayga Vidhyala Matric Higher Secondary School, Ullagaram. **Ms.D.Usha and Ms.S.Sivajothi Kavitha** was the resource person.



Guest Lecture on **"Solar Training"** was organized for the CSBS students on 06.03.2025 at M209 in association with TNEWA as a part of MOU Activity. **Mr.Ansari Basha, TNEWA** was the resource person.



A Project Expo was conducted for the Third Year EEE Students on 08.04.2025. Dr.S.Aru, Dean research, Professor-ECE department was the resource person.



A project Expo was conducted for the Second year EEE students in association with Electronics Club on 23.04.2025 at Machine Laboratory. Dr.S.Ramesh, Principal and Professor was the resource person.



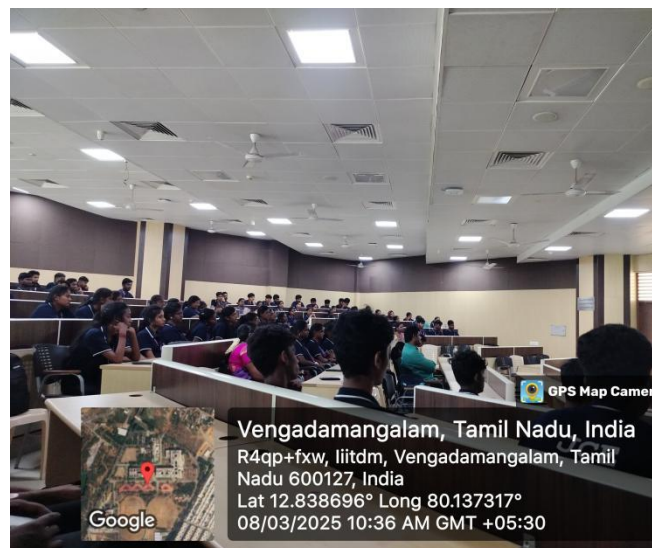
A 3-days hands-on- training Program with practical exposure was conducted for EEE students on the topic “Electrical Machine Design” from 03.03.2025 to 05.03.2025 at M209.Dr.S.Vinod was the resource person for the event.



Workshop on “World Intellectual Property Rights (IPR) and IP Management for Startup” was conducted on 28.04.2025 at Auditorium. Dr.P.Gnanasivam and Dr.S.Vinod were the resource person.



An Industrial visit was arranged for the students of EEE Department to **Indian Space Research Organization,(ISRO) Bangalore** on 18.03.2025.



An Industry Visit to MadeIT IITDM was arranged as a part of eprotoshop course for the Second Year students on 08.03.2025 at Ramanujam Auditorium, IITDM.



An Industrial Visit was arranged for the second and Third year students of EEE Department to **B.M.Brila Planetarium, Chennai** on 28.03.2025.



An Industrial visit was arranged for the Second Year students of EEE Department to **Integral Coach Factory, Perumbur** on 18.03.2025. Mr. Kalaiselvan, CRM, senior sessions Engineer was the resource person.



The **Parent-Teacher's Meeting** was conducted for the second, third and the final year EEE students on 15.03.2025. All the parents attended the meeting.



An one day up skill training program was organized for EEE students on "**Career Enhancement, Building**" on 25.02.2025 at Auditorium. **Mr.Karthikeyan** was the Resource Person.



An Industry Visit to MadeIT IITDM was arranged as a part of eprotoshop course on 08.03.2025 at Ramanujam Auditorium, IITDM. Ms.S.Sivajothi Kavitha and Ms.D.Usha attended the Visit.



The Institution Innovation Council organized a two days workshop on "Innovation and Entrepreneurship" from 23.04.2025 to 24.04.2025 at Seminar Hall..Ms.S.Sivajothi Kavitha,assistant Professor,EEE Department was the resource Person..

Conference Attended by Faculties

Sl. No	Name of the Faculty	Title	Name of the Institution	Date
1	Dr.V.Jamuna, S.Divyalakshmi, Kishore Kumar.S, Paramasivam	AI based Solid Waste Management using SORTBOT	5 th International Conference on Artifial Intelligence, 6G Communications and Nwetwork Technologies-ICA^NT 2025" Velammal Institute of Technology	27.03.2025 to 28.03.2025
2	Dr.V.Jamuna, Dhanalkshmi.T, Chandrasekar.R, Santhosh.K	Regenerative Braking on BLDC Motor for Electric Vehicles	5 th International Conference on Artifial Intelligence, 6G Communications and Nwetwork Technologies-ICA^NT 2025" Velammal Institute of Technology	27.03.2025 to 28.03.2025
3	Dr.S.Vinod , J.M.Harini, N. Surya prakasam, M.B.Adhimurugan	SPV powered SRM Drive for irrigation purpose.	National Level Conference on Innovations, Computing and Artificial Intelligence Technology (INCIICAIT 2K25), Selvam College of Technology, Salem.TN	07.04.2025
4	Dr.S.Vinod , Ezhilarasan.R, Kishore Kumar.S, Kishore.C	EV Charger using Bridgeless CUKSEPIC Converter	National Level Conference on Innovations, Computing and Artificial Intelligence Technology (INCIICAIT 2K25), Selvam College of Technology, Salem.TN	07.04.2025
5	Ms.S.Rudhra, A.V.Neha, Sriram.A, Visten Povas Solomon.S	Power Quality enhancement based CUK Converter Fed EV charging	5 th International Conference on Artifial Intelligence, 6G Communications and Nwetwork Technologies-ICANT 2025" Velammal Institute of Technology	27.03.2025 to 28.03.2025
6	Ms.S.Rudhra, Arthi.P,Vennila.V, Joshwa Solomon.A	Bridgeless isolated Cuk-Luo Converyer based EV Charger with PF preregulations.	5 th International Conference on Artifial Intelligence, 6G Communications and Nwetwork Technologies-ICA^NT 2025" Velammal Institute of Technology	27.03.2025 to 28.03.2025
7	Mr.J.Arul Prakash, Abel	A resonant Inductive	National Level Conference	07.04.2025

	Jisosa.J, Dhanush.L, Rithish Kumar.M, Vasanth.K	Coupling Wireless Charging for EV in motion	on Innovations, Computing and Artificial Intelligence Technology (INCIICAIT 2K25), Selvam College of Technology, Salem.TN	
8	Ms.Sivajothi Kavitha, Abdul Rasheed.V.K, Dharun.A, Susinthar.S.K	Triple Energy Storage System for Seabin Application	National Level Conference on Innovations, Computing and Artificial Intelligence Technology (INCIICAIT 2K25), Selvam College of Technology, Salem.TN	07.04.2025
9	Ms.Sivajothi Kavitha, Sundaresan.P, Akash.G, Desingu Rajan.CA, Madhanraj.D	AI Robot for Delivery	National Level Conference on Innovations, Computing and Artificial Intelligence Technology (INCIICAIT 2K25), Selvam College of Technology, Salem.TN	07.04.2025
10	,Ms.D.Usha,Kavitha.D, Kanimozhi.K, Vijayarathinam.B	IOT and AI based Smart Parking for Electric Vehicle with wireless Charging system	National Level Conference on Innovations, Computing and Artificial Intelligence Technology (INCIICAIT 2K25), Selvam College of Technology, Salem.TN	07.04.2025

FDPs Attended by Faculties

Sl. No	Name of the Faculty	Title	Name of the Institution	Date
1	Mr.J.Arul Prakash	Master Class series under IP UTSAV conducted by AICTE	MoE's Innovation Cell	21.04.2025 to 26.04.2025

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Workshop Attended by Faculties

Sl. No	Name of the Faculty	Name of the Institution	Date
1	MrJ,Arul Prakash	IMTEX 2025, Tooltech 2025,Digital Manufacturing 2025-Exhibition	23.01.2025, Bengaluru, Karnataka

Sanctioned Funded Projects

Sl. No	Name of the Investigator	Title	Amount	Year applied
1	Dr.V.Jamuna and Ms.S.Sivajothi Kavitha, T.Dhanalakshmi, S.Divyalakshmi	AI based Solid Waste Management using SORTBOT fpr turning Trash in treasure	Rs.32,000/-	IEI-Kolkata-2024-2025

Achievements

Sl. No	Name of the Student	Year	Event/Institution
1	Bharanidharan.C,Madhavan.M, Jamal Mohammed Fazil.M	III Year	Treasure Hunt,Third Prize-New Prince Sri Bhavani Engineering College
2	Ranjith.S, Harish.S, Saran.J	III Year	Treasure Hunt, Third Prize-New Prince Sri Bhavani Engineering College
3	Meganathan.S, Sakthi suriyaT.V, Ramprasath.N, Manoranjan.V, Vinoth Kumar.E,Prem Kumar.V	III Year	Dance-Third Prize-New Prince Sri Bhavani Engineering College