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**VOLUME 14 | ISSUE 2 | Oct 2025** 

Department of Electrical and Electronics Engineering

SSN College of Engineering



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# THE CREW

Meet the dynamic team bringing this edition to you



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# THE CREW

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## FROM THE HOD DESK

Words that inspire, wisdom that guides



It is with immense pleasure that I, on behalf of the Department of Electrical and Electronics Engineering, welcome you to the current edition of our newsletter, REDEEEM. This publication stands as a vibrant chronicle of our collective journey, and it is a privilege to present to you a snapshot of the innovation and dedication that thrives within our community.

This edition illuminates the dynamic activities of the Department of EEE during the second quarter of 2025. It has been a period of intense academic pursuit, enriched by insightful industry visits and the innovative spirit of our technical symposium, Invente. A special thanks to Dr V.S Nagarajan and Sai Mandati, AEEE President for masterfully orchestrating these events and motivating our students to excel.

I congratulate Dr K.Usha and Dr R.Seyezhai for being honoured with Best Teacher award The pages that follow capture the remarkable energy and achievements that define our department. My sincere appreciation extends to our faculty, students for the valuable contributions during this quarter. A special thanks to the editorial team for their dedication in bringing this publication to life. I hope and expect that you all enjoy reading this newsletter as much as I enjoyed bringing it forth to you.

I look forward to the forthcoming editions, brimming with even more captivating activities and features.

**Dr. Rajini V**, Head of the Department, EEE

### PREFACE

### A heartfelt message from the Editorial Board

You are trapped in the past and the future, missing the only real moment: the present. The problem is not thoughts themselves as it is natural process, but our relationship to them. It is the feeling behind a thought that dictates our mood. The epics warn us how a single poisonous thought, whispered by Kooni (Manthara) into Kaikeyi's ear in the Ramayana and by Shakuni into Duryodhana's in the Mahabharata, can lead to the utter destruction of kingdoms. Also, single, fleeting thought of desire stripped the great sage Vishwamitra of all his hard-earned powers. Every thought you entertain is the seed in the garden of your destiny.

It is hard to control our thoughts because they do not appear randomly; they arise from deep mental impressions and latent tendencies, or desires, stored within us. Every action and every thought leave a subtle impression, like a groove in the mind. These impressions, or \*samskaras\*, create latent tendencies or preconditioning that fuel future desires and thoughts. When conditions are right, a desire is activated and rises to the surface of the mind as a thought-wave. This is why we often have repetitive thought patterns—we are governed by our deep-seated \*samskaras\*. The hidden impressions are activated when the external environment triggers them.

For our ancestors, identifying with the thought "Danger!" was crucial. Hesitating to ask, "Is this my thought or just a thought?" could get you killed. The brain treats thoughts as reality itself to ensure swift action. We are trained into identification with our thought from our earliest moments as it is critical for survival. However, this lifesaving mechanism now misfires in the face of modern, psychological "threats" like social anxiety or work stress as we are continuing it all through our life. We are taught to say, "I am sad," not "A wave of sadness is passing through the field of awareness." Language solidifies this identity. Family, school, and culture reinforce this "I" as a fixed entity with a story, a personality, and problems.

The ego is the mental construct of "me." Its entire existence depends on you believing you are your thought. If you are not your thoughts, memories, and stories, then what is the ego? It perceives dis-identification as its own death and will fight this with every tool it has—doubt, fear, distraction, and the creation of compelling new thoughts to pull you back in.

### **PREFACE**

### A heartfelt message from the Editorial Board

Our thoughts alter the rhythm of our heart, and our intentions ripple into matter. You cannot see this energy, yet it carries everything, and here lies the first shock: every place, every object, everybody carries residues. A room feels heavy because past arguments still vibrate within its invisible fabric. You feel good when you visit your old home where you lived with your ancestors. A temple inspires peace because centuries of prayer are stored in its subtle field.

Thoughts are incredibly seductive because their nature is hidden. They present you with content so compelling that you never see the process itself—the simple, silent fact that a thought is arising. Every thought subtly implies a thinker. You get so caught in the story that you never question the central character. In our normal state, awareness (the subject) fuses with its objects (thoughts, feelings, sensations). When a feeling of anger arises, awareness becomes "angry awareness." There is no space between the two.

True dis-identification is not an act of doing but a shift in seeing. It is a relaxation, not an effort. But we are conditioned to effort, so we try to force it and fail. Initially, stepping out of identification can feel like a loss, a void, or a lack of personality. The ego screams that this is boring, wrong, or dangerous. We prefer the familiar drama of our problems (as they give pleasure) to the silent peace of presence. The path, therefore, is not about fighting the difficulty but about understanding and working with it. Shift from effort to curiosity. Instead of trying to suppress thoughts, become genuinely interested in them. Simply notice the thought as a mental event. Instead of "I am angry," try noticing, "There is anger," This creates a tiny space between you (the awareness) and the thought (the object). You don't need to stop the river of thought; you just need to sit on the bank and watch it flow by. Every time you notice you've been swept away, you have already returned to the bank. That moment of noticing is dis-identification. In this process, and with Just in time and kaizen, we learn to observe our thoughts, feelings, and the underlying \*samskaras\*. The difficulty is not a sign that you're failing, but that you are engaging with one of the most profound shifts a human being can make: the transition from being a character in the movie of your mind to being the aware space in which the entire movie plays out. You are not the passing cloud, but the sky. Remember, the passing cloud never rains.



Success through knowledge

#### 1. External Recognition

**Dr R Seyezhai**, P/EEE as a technical mentor at SSN iFound scrutinized around 8 start-ups related to renewable energy and EV domains in online mode during 26.07.2025 -29.07.2025.

Dr. K. Usha, ASP/EEE delivered a guest lecture on "Finite Element Analysis **Optimization** and Electrical Apparatus" and served as a distinguished resource person in One online Faculty Development Programme (FDP) on "AI Revolution in emerging technologies" organized by the Department of Electronics and Communication Engineering, Institute of Science and Technology, Ramapuram, Chennai held from 02.06.2025 to 07.06.2025.

Dr R Seyezhai, P/EEE has been nominated as a member of the Board of Studies for postgraduate programme M.E. (Power Electronics and Drives), offered in the Affiliated Institutions (Non-Autonomous) under the ambit of Anna University for a period of three 20.06.2025 vears from and attended the first BOS meeting on 03.07.2025 at Anna University, Chennai to discuss the curriculum and syllabi.

Dr R Seyezhai, P/EEE delivered a Guest Lecture titled, "IoT in Electrical and Renewable Energy Systems" in Faculty the Five-Day Online Development Programme titled Emerging Applications of IoT in Electrical Systems, Automation, and Industry 4.0 on 24.07.2025 in online mode organized by Rajalakshmi Engineering College, Chennai.

**Dr V Thiyagarajan**, ASP/EEE, has attended the Board of Studies (BoS) Meeting convened for the M.E. (Power Systems Engineering) programme, offered to students of affiliated (non-autonomous) institutions under the ambit of Anna University on 03/07/2025.

Dr. Muthu Selvan N. B., ASP/EEE, delivered a guest lecture on "Artificial Intelligence and its Application in Electrical Engineering" as part of the Faculty Development Program titled "Harnessing AI for Next Generation Communication and Electrical **Technology,**" conducted jointly by the Department of Electronics Communication Engineering and the Department of Electrical and Electronics Engineering DMI at College of Engineering on July 16, 2025.



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Dr. M.Senthil Kumaran, ASP/EEE delivered a guest lecture on Control Algorithms for FPGA at the department of EEE, SSN College of Engineering, Chennai on 07.07.2025 in the Scheme for Promotion of Academic and Research Collaboration (SPARC) Sponsored Workshop on Applications of Artificial Intelligence in Power Quality

Dr V Rajini, P/EEE, acted as the PhD viva voce examiner for the thesis titled,"
Optimal allocation of EV charging stations and distributed generation" at Annamalai University on 1-8-2025

Dr R Ramaprabha, P/EEE, delivered a invited Lecture on Hybrid Powered DC Charging Station with IoT on July 24, 2025 in a Five-day online FDP on Emerging Applications of IoT in Electrical Systems, Smart Automation, and Industry 4.0 conducted by Rajalakshmi Engineering College during July 21 to July 25, 2025.

**Dr. V. Thiyagarajan,** ASP/EEE, served as a keynote speaker and delivered a talk at the virtual event PowerTech-X (Session-O3) Powering Innovation, Empowering Industry, organized by the **IEEE PES Bangladesh Chapter** on 13.09.2025.

**Dr. R. Ramaprabha**, P/EEE, attended Synopsis meeting at SVCE on July 16, 2025 for Ms. V. Rajeswari (Reg. No. 21243997270) under the guidance of Dr. Nalin Kant Mohanty, Professor, SVCE

**Dr V Rajini,** P/EEE, acted as the PhD viva voce examiner for the thesis titled "**Development of High gain multiport non-isolated DC to DC Converters**" at SRM University, Kattangulathur on 31-7-25

Dr. R. Ramaprabha, P/EEE attended DC meeting for the candidate Mrs. R. Priyanka under the guidance of Dr. S. Sendilkumar, Professor & Head, S. A. College of Engineering on Sep 10, 2025 through online.

**Dr R Seyezhai,** P/EEE visited and attended the monthly review meeting of the scholars and finalized the problem statement for Ms.Maheswari along with Dr. A.K.Lakshminarayanan, ASSP/Mech and Dr S.Paramasivam at ESAB, Ambattur, Chennai on August 5,2025



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**Dr R Seyezhai**, P/EEE addressed the incubatees as a technical mentor in the Elevate 2025 master class series on 13.08.2025 organized by SSNiFound.

Dr R. Leo, ASP/EEE served as the Chief Guest for the inauguration of Next Gen IoT Club in Department of Electronics and Communication Engineering Prince Shri at Venkateshwara Padmavathy Engineering College and delivered a guest lecture on the topic Evolution of IoT and its application 27.09.2025

**Dr. M. Balaji**, P/EEE served as an academic expert in the Critical Design Review (CDR) Committee constituted by CVRDE, Chennai, to review the development of Engine Starting Sequence and Controlled Power Relay Assemblies on 11.09.2025

**Dr R Seyezhai**, P/EEE delivered the guest lecture on Lean Start-up & Minimum Viable Product/Business for the III Year EEE students organized by the SSN-IIC on 06.08.2025.

**Dr. Muthu Selvan N.B.**, ASP/EEE delivered a guest lecture on Harnessing Digital and Technological Integration in Teaching at the department of EEE, SRM University, Chennai, on 12.09.2025.

**Dr. Muthu Selvan N.B.,** ASP/EEE delivered a guest lecture on **AI for Electrical Engineering** at the department of EEE, GRT Institute of Engineering and Technology, Tiruttani, on 10.09.2025.

**Dr. Rajesh Panda,** AP/EEE selected as a member of the Editorial Board for the prestigious Blue Eyes Intelligence Engineering and Sciences Publication (BEIESP) for the year 2025-26 on 13.09.2025.

**Dr. R. Ramaprabha,** P/EEE attended Department Advisory Board (DAB) meeting of Department of EEE, Sri Sairam Engineering College in the capacity of Academic Expert on 27.09.2025.

**Dr R Seyezhai**, P/EEE acted as session chair for the IEEE Sponsored 11th International Conference on Electrical Energy Systems (ICEES-2025), organized by the Department of Electrical and Electronics Engineering, SSN College of Engineering, Chennai, India on 21.08.2025.



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#### 2. Research Publication

M.Veerasundaram, M.Balaji. E.Fantin Irudaya Raj, "Complex Power Quality Disturbance Classification Using HilbertHuang Transformation and Multiclass Support Vector Machine Classifier". Recent Advances in Artificial Intelligence and Smart Applications, Lecture Notes in Networks and Systems, Vol. 1380. ISSN Print: 978-981-96-5821, ISSN Online: , Impact Factor: 0.166, DOI: https://doi.org/10.1007/978-981-96-5822-0<sub>-</sub>12, Pages: 131–144.

Sushree Samikshya Pattanaik. Rajesh Kumar Panda, Ashwin "A Sahoo. Hybrid Machine Learning Approach for Real Time Wind Power Prediction for Micro grid Management", Energy Engineering Research Express, Vol:7, ISSN Print: 2631-8695, ISSN Online: 2631-8695, Impact Factor: 1.5, DOI: https://doi.org/10.1088/2631-8695/add6f4, Pages: 1-11.

S. Sathya Agila, V. Thiyagarajan, "An Overview of Multilevel Inverter Applications in Aircraft, FACTS and Renewable Energy Sources", Lecture Notes in Electrical Engineering, Vol. 1402, ISSN Print: 1876-1100, ISSN Online: 1876-1119,

Impact Factor: 0.143, DOI: https://doi.org/10.1007/978-981-96-5115-3\_8, Pages: 95-107.

Raman Balireddy, Anjan Chakravorty, S. Murty Bhallamudi & Soumendra Nath Kuiry, "Finding equivalence layout of and independent water parameters distribution network using nonlinear multi-port Thevenin theorem", Urban Water Journal, Vol:22 , ISSN Print: 1573-062X, ISSN Online: 1744-9006, Impact Factor: 2.1, DOI: https:doi.org/10.1080/1573062X.2025.25 57303

**S.Krishnaveni**, "Linear Control Techniques for Boost Converter Performance Enhancement", Journal of Engineering Science and Technology Review, Vol. 18, ISSN Print: 1791-2377, ISSN Online: , Impact Factor: 0.185, DOI: 10.25103/jestr.184.24, Pages: 191-196.

Ramaveerapathiran, Arun Muniraj, T. Jarin, S.R. Boselin Prabhu, M. Willjuice Iruthayarajan, "Evaluation of a robust PID deadtime compensation controller based on the evolutionary computation method", Journal Control, for Measurement, Electronics, Computing and Communications, Vol. 66(4), ISSN Print: 0005-1144, ISSN Online: 1848-3380, Impact Factor: 1.7, DOI: https://doi.org/10.1080/00051144.2025.25 24193, Pages: 32-46.



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R.Deepalaxmi, C.Vaithilingam, "Electro-mechanical Parameter Determination of Induction Motor Impact Using Generalized Regression Neural https://doi.org/10.3390/engproc202509301 **Network**", Journal of Electrical System 0, Pages: -1-10. Vol: 21, ISSN Online: 11125209, Impact Factor: 0.5. DOI: https://doi.org/10.52783/jes.8970, 456-470.

Harini Vasudevan Balamurugan, Lakshmi Praba B, Abhi Naya, Seyezhai R, Deeikshanyaa S, "Design Simulation of Ripple Free Non-Inverting DC-DC Cuk Converter with Valley-Fill Circuit for LED Applications", MDPI Eng. Proc.2025, Vol: 93, ISSN Print: 2673-4591, ISSN Online: 2673-4591. Impact Factor:1.6,DOI:https://doi.org/10.3390/eng proc2025093005, Pages: 1-9.

Sathies Kumar, "Fault detection in Integrated Reserve Power Markets" images Convolutional neural network and ISSN Print: 2731-8087, ISSN Online: 2731hybrid optimization approach",

Environmental Progress & Sustainable Energy, Vol:44, ISSN Print: 1944-7442, ISSN Online: 1944-7450, Impact Factor: 2.3,

Ramabadran Ramaprabha, Sakthivel 2673-4591, Sangeetha, Raghunathan Akshitha Lekhashree 0.205. **Blessy**, Ravichandran Meenakshi. Pachaiyappan "Development of AC-DC Converter for Hybrid PV Integrated Microgrid **System**", MDPI - Eng. Proc. 2025, 93(1), ISSN Print: , ISSN Online: 2673-4591, Factor: 0.205. DOI:

Ramabadran Ramaprabha, Ethirajan Pages: Anjana, Sureshkumar Hariprasath, Sulaimon Mohammed Medarametala Venkata Kiran. Tikarey Yoganand Navinsai Kaarthik "Implementation of **Bidirectional** and Converter with Asymmetrical Half-Bridge Converter Based on an SRM Drive Using PV for Electric Vehicles", MDPI - Eng. Proc. 2025, 93(1), ISSN Online: 2673-4591, Impact Factor: 0.205, DOI: https://doi.org/10.3390/engproc2025093015 , Pages: 1-10

Rajesh Panda, Prashant Kumar Tiwari, "Estimation of Risk Sensitivity and Tamilselvi, R. Ramaprabha, T. Level for GENCOs in Stochastic Wind using ,Smart Grid and Sustainable Energy, Vol: 10,



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8087. Impact Factor: 1.9, https://doi.org/10.1007/s40866-025-0289-7, Pages: 1-18.

"Advancing nano-grid technology: A 2673-4591. extended quadratic hybrid load boost :https://doi.org/10.3390/engproc202509302 converter topology utilizing voltage 1 source inverters for efficient management", Renewable Energy, Vol. 256, 3. Book chapters ISSN Print: 0960-1481, Impact Factor: 9.1, DOI:

https://doi.org/10.1016/j.renene.2025.124173.

Anirban Maity, Sajjan Kumar and Pulok "Optimization Pattanayak, of Grid-Connected Hybrid Microgrid System Power and Embedded Drive Control. Charging Using Optimization Algorithm", Engineering Engineering, Vol. 1371, ISSN Print:978-981-Proceedings, Vol. 93, No. 1, pp. 1-10, 2025, ISSN 2673-4591. Online: DOI :https://doi.org/10.3390/engproc2025093013

Adhit Roy, Susanta Dutta, Soumen Biswas, Anagha Bhattacharya, Sajjan Kumar, Soham Dutta and Provas Kumar Roy, "Delay margin analysis of FOTID ZVS controller for RES based EV system Modulation for Bidirectional Dual using MMGPE optimization", Energy Active Bridge DC-DC Converter Conversion and Management: X, Vol. 27, No. Electric Vehicle", Advances in Electrical 101151, pp. 1-25, 2025, Online ISSN: 2590- Power and Embedded Drive Control. 1745. **Impact** factor 7.6. :https://doi.org/10.1016/j.ecmx.2025.101151

Roy, Anirban Maity, Atanu Kumar, Sabyasachi Pramanik, Pulok 472-482. Pattanayak and Manashi Chakraborty,

DOI: "A Hybrid Machine Learning Approach Power Load Optimization Emission Reduction in Rural Microgrids", Engineering Proceedings, M. Uma Maheswari, R. Ramaprabha, Vol. 93, No. 21, pp. 1-12, 2025, Online ISSN:

M. Elenchezhiyan, J.N. Renukamba, R. Kaliamoorthy, M. Comparative Study of Joint and Dual Estimation Scheme for Switched Nonlinear System", Advances in Electrical Pelican ICPEDC 2024. Lecture Notes in Electrical 96-3693, ISSN Online: 978-981-96-3694, DOI: https://doi.org/10.1007/978-981-96-3694-5<sub>1</sub>8, Pages: 275-290.

В. R. Bhavaesh, Madhavan Velraj, S.Krishnaveni, K. K. Uthira Ramya Bala, J. Jayachandran, "Analysis of Range of Single-Phase DOI ICPEDC 2024. Lecture Notes in Electrical Engineering, Vol. 1371, ISSN Print:978-981-96-3693, ISSN Online: 978-981-96-3694 **Sajjan** DOI: 10.1007/978-981-96-3694-5\_34, Pages:



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R. Ramaprabha, K. S. Harshavardan "Design and Simulation of Bidirectional Converter Suitable for EV Applications", Advances in Electrical Power and Embedded Drive Control. ICPEDC 2024. Lecture Notes in Electrical Engineering, Vol. 1371, ISSN Print:978-981-96-3693, ISSN Online: 978-981-96-3694-DOI:https://doi.org/10.1007/978-981-96-3694-5\_19, Pages: 291-306.

Krishnaveni Subramani, "Bidirectional Power Converters in Renewable Energy A Comprehensive Review", Modern Power Converters for Renewable Energy Applications: Modeling, Analysis, Design, and Control. ISSN Print: 9781003496946, ISSN Online: 9781003496946, DOI: 10.1201/9781003496946-19, Pages: 514-542.

Venkatraman Thiyagarajan, Cheng Siong Chin. Natarajan Balasubramanian Selvan Muthu "Modern Power Converters for Renewable Energy **Applications:** Modeling, Analysis, Design, and **Control**". ISSN Print: 9781003496946. ISSN Online: 9781003496946. DOI: doi.org/10.1201/9781003496946, Pages: 1-564.

Sathish Sathya Agila, Venkatraman Thiyagarajan, "Multilevel Inverters for Electric Drives", Modern Power Converters for Renewable Energy Applications: Modeling, Analysis, Design, and Control, ISSN Print: 9781003496946, ISSN Online: 9781003496946, DOI: 10.1201/9781003496946-9, Pages: 206-229.

Ramaprabha Ramabadran, Divya Thangarai. "Multilevel Inverter Solutions for Wind and Solar Hybrid Systems", Modern Power Converters for Renewable Energy Applications: Modeling, Analysis, Design and Control, ISSN Print: 9781032804651. ISSN Online: 9781003496946. DOI: https://doi.org/10.1201/9781003496946, Pages: 230-254.

#### 4. Conference Activity

M. Devesh Raj, A. Poovizhi, R. V. Priyadharshini, T. Samyuktha, "Study of State Transition Diagram for Power Grid Operation Using Power World Simulator", Advances in Electrical Power and Embedded Drive Control. ICPEDC 2024 Lecture Notes in Electrical Engineering, Vol. 1371, ISSN Print:978-981-96-3693, ISSN Online: 978-981-96-3694, DOI: https:doi.org/10.1007/978-981-96-3694-5, Pages: 63-82.

V V Narasimha Raju, M. Senthil Kumaran, M.S. Pavithraa, S. Rukmani Devi, Nellore Manoj Kumar and Manoj "Intelligent Kumar **Predictive** Control for Enhancing the Efficiency and Grid Integration of Wind Energy Systems", 2024 International 1st Conference Sustainability on and Advancements Technological in Engineering Domain (SUSTAINED), pp. 45-50, 2024 DOI: 10.1109/SUSTAINED63638.2024.11073868)



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Leo Raju, Mani krishnaa E, Monishkumar R, Yogesh G S, "Cost effective Building Energy Management using IoT and Machine Learning", 11th International Conference on Electrical Energy Systems (ICEES 2025).

Leo Raju, "IoT based Communication System for Smart Energy Monitoring and Optimization", 3rd IEEE International Conference on Sustainable Computing and Data Communication Systems, (ICSCDS 2025).

R. Ramaprabha, G. Melviah, "Enhanced High Voltage Gain Converter for Small-Scale PV Applications", 2025 11th International Conference on Electrical Energy Systems (ICEES).

Nivethithaa R, Raajalakshmi B, Krishnaveni S, "Analysis of Two Switch Boost Converter for Efficient Renewable Energy Integration", 11th International Conference on Electrical Energy Systems (ICEES-2025).

Sathya Agila S, Thiyagarajan V - "Compact and Scalable Multisource Multilevel Inverter for Renewable Energy Systems", 11th International Conference on Electrical Energy Systems (ICEES-2025).

Muthu Selvan N B, Thiyagarajan V "Integration of Electric Vehicles as Mobile Energy Assets in Modern

**Electrical Energy Systems**", 11th International Conference on Electrical Energy Systems (ICEES-2025).

Thiyagarajan V, Muthu Selvan N B "Multi-Objective Economic Dispatch Considering Emissions, and Renewable Uncertainty", 11th International Conference on Electrical Energy Systems (ICEES-2025).

Rajini V, Nagarajan V S and Bharatiraja C, "Investigations on half bridge resonant converter for Electric vehicles", National Conference on The Scope and Adoption of Electric Vehicles and Public Charging Station Infrastructure for Sustainable Bharat 2025.

Nagarajan V S, Rajini V and Bharatiraja C, "Comparative Multi Physics based Analysis of IPMSM and Induction Motor for Last Mile Delivery Application", National Conference on The Scope and Adoption of Electric Vehicles and Public Charging Station Infrastructure for Sustainable Bharat, 2025.



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#### 5) Projects Applied

"Agentic AI and IoT based Building Energy Management using LoraWAN and STM32", PI: Dr. R. Leo, ASP/EEE, Co PI: Dr. M.Senthilkumaran, ASP/EEE, Total Budget (INR): 59,75,000, Funding Agency: ANRF, applied on July 4, 2025

"Development of Economically Resilient, Novel, Magnet-free, Dual stator-Rotor Motor. Fueling Indias Electric Transition", PI: Dr V Rajini, P/EEE, Co PI: Dr VS Nagarajan, ASP/EEE, Total Budget( INR): 1,83,19,630. Funding Agency: ANRF-ARG

"Design and Development of Carbon Nanotube-Based DC Motors for Enhanced Electric Vehicle Performance", Pl: Dr. R. Rengaraj, P/EEE, Co-Pl: Dr. G. R. Venkatakrishnan, ASP/EEE and Dr. M. Devesh Raj, ASP/EEE, Total Budget (INR): 1,50,53,498. Funding Agency: Ministry of Science & Technology

"Development of AI-Powered Automated Recycling Solutions for Decommissioned Solar PV Cells Using Ultrasonic Sensors", PI: Dr. M. Devesh Raj, ASP/EEE, Co-PI: Dr. G. R. Venkatakrishnan, ASP/EEE and Dr. R. Rengaraj, P/EEE, Total Budget (INR): 1,29,86,599. Funding Agency: Ministry of Science & Technology.

Optimized control strategies for real time energy optimization in PEM fuel cell green microgrid", PI: Dr. R. Seyezhai, P/EEE;, Co-PI: Dr. Rajesh Panda, AP/EEE. Total Budget (INR): 85,02,460. Funding Agency: Advanced Research Grant, ANRF.

Dr.S.Tamilselvi (PI), Dr.M.Mahalakshmi (CO-PI), Dr.M.Senthilpandian (CO-PI) submitted project proposal titled, "Hybrid AI-Electrostatic and Thermochemical Refining System for High-Purity Silicon and Circular Recovery of Critical Materials from End-of-Life Photovoltaic Panels" to ANRF under the scheme 'Advance Research Grant' for an amount of Rs.58,99,696. (July 2025)

"AloT and blockchain based Energy Monitoring and Anomaly Detection for Smart Building", PI: Dr. R.Leo ASP/EEE, Co-PI: Ramanuja R, Sharvesh S, Umesh Y J (Final year EEE Students, Total Budget (INR): 10,000. Funding Agency: Tamil Nadu State Council for Science and Technology (TNSCST-SPS-2025)

"Development of Lora based IoT framework for Energy and water management", PI: Dr. R.Leo ASP/EEE;, Co-PI: Vasanthakrishnan. S, Yogesh. G.S. Sriram. S (Final year EEE Students, Total Budget (INR): 10,000. Funding Agency: Tamil Nadu State Council for Science and Technology (TNSCST-SPS-2025).



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"Design and Modeling for PEM Fuel Cell hybrid Electric Vehicle in Day-ahead competitive power market", PI: Dr. Rajesh Panda, AP/EEE;, Co-PI: Dr. V. Rajini, P/EEE, Total Budget (AUD): 5600. Funding Agency: Australia Academy of Science

"Development of Cyber-Secured Framework for Reliable Supervisory Control and Monitoring of Modern Power Grids". PI: Dr. Rajesh Panda/AP/EEE;, Co-PI :Dr. M Balaji /P/ EEE and Dr. Muthu Selvan N. B./ AP / EEE, Total Budget (INR): 1,19,13,800. Funding Agency: Ministry of Electronics and Information Technology (MeitY), Government of India

#### 6) Scholar Info

**Dr.M.Balaji,** Professor/EEE conducted the Annual Doctoral Committee Meeting for his full-time research scholar ,Mr.Veerasundaram on 01.07.2025.

**Dr** R Seyezhai, P/EEE attended the DC Synopsis meeting for the scholar Ms. Shiny, VIT University, Vellore under the guideship of Dr Kousalya, P/SELECT, VIT University, Vellore on 28.07.2025.

**Dr. R. Rengaraj**, P/EEE conducted the Viva-Voce Meeting for his part-time research scholar, Mr. Manivanan R. on 13.06.2025

**Dr. K. K. Nagarajan** attended the Comprehensive Doctoral Committee Meeting of the Ph.D. Scholar (FT), Mr. Meenakshi

Sundereswaran. U (Reg. No. RA2313004011008) was held on July 23, 2025, at Department of ECE, SRM Institute of Science and Technology, Kattankulathur 603203 via online.

**Dr.S.Tamilselvi** has Arranged and Conducted the confirmation DC meeting for her fulltime ph.D scholar, Ms.Manisha online on 31.07.2025.

**Dr. Sajjan Kumar, AP/EEE** conducted First DC meeting for his PT research scholar Ms. Chitra A on 03-09-2025.

**Dr R. Leo**, ASP/EEE conducted First DC meeting for his research scholar Ms. Vanathi S on 10-09-2025.

**Dr R. Leo,** ASP/EEE conducted first DC meeting for his part time research scholar Ms. Vijayalakshmi P on 15-09-2025

**Dr. R. Ramaprabha,** Professor/EEE conducted first DC meeting for her Full-time Research Scholar Ms. Sangeetha on Sep 02, 2025. She got SSN-RA offer on Sep 24, 2025.

**Dr V Thiyagarajan**, Associate Professor / EEE has conducted the first DC meeting for his part-time scholar Mr M Ashok Kumar on 11/09/2025.

**Dr. K. K. Nagarajan**, ASP/EEE conducted the Pre-Synopsis Research Seminar for his part-time research scholar, Ms. Poornima J on 08.09.2025.



#### Success through knowledge

**Dr R. Leo**, ASP/EEE conducted First Doctoral Committee meeting for his part time research scholar Ms. Priyangaa A on 01.09.2025.

**Dr. M. Balaji**, P/EEE conducted the confirmation DC Meeting for his part-time research scholar, Ms. S. Rudhra on 02.09.2025.

**Dr R. Leo**, ASP/EEE conducted First Doctoral Committee meeting for his part time research scholar Ms. Naveena Beham on 02.09.2025.

7) Events Attended

7a) FDPs, STTPs, Workshops

**Dr. Muthu Selvan N. B.**, ASP/EEE, attended a 5-day national-level Faculty Development Programme on **Research Structuring & Publication Process** conducted between 23-27 June 2025 by CRT, National Foundation for Entrepreneurship Development (NFED), Coimbatore, Tamil Nadu.

**Dr R. Leo,** ASP/EEE, attended 5 days Online Faculty Development Program (FDP) on **Generative AI & Agentic AI** organized by Department of Computer Engineering and Technology, Dr. Vishwanath Karad, MIT World Peace University, Pune from 30-6-2025 to 4-7-2025.

**Dr. R. Arun**, AP/EEE, attended AICTE-QIP-PG Certificate Program on "Wireless Technology and IoT" at Indian Institute of Technology Roorkee from June 19, 2025, to June 30, 2025.

Dr. Rajesh Panda, AP/EEE, attended One Week Skill Development Program (SDP) on "Research Documentation and Proposal Writing: LaTeX, IPR & beyond" held during 23 June - 28 June, 2025 organized by the Department of EEE, CVR College of Engineering.

**Dr. R. Leo**, ASP/EEE, attended Three-week online Faculty Development Program on "**Fundamentals of Smart Grid**" organized by MNIT Jaipur under the EICT Academy initiative, from 7.07.2025 - 6.08.2025

**Dr. Rajesh Panda**, AP/EEE, attended 3-days online workshop on "Harnessing Open Source Tools for Power System Research Conducted" by GSSS Institute of Engineering and Technology for Women, Mysuru from 29.01.2025-31.01.2025.

**Dr. Muthu Selvan N B**, ASP/EEE, attended a 40-hour (3-credit equivalent) online training Program cum Faculty Development Program, on 'Fundamentals of Smart Grid', conducted by Electronics and ICT Academy (Phase II), Malaviya National Institute of Technology Jaipur, Indian Institute of Information Technology,



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Design and Manufacturing, Jabalpur, National Institute of Technology, Patna and Indian Institute of Technology Roorkee, during 7th July 6th August 2025.

**Dr. M. Senthil Kumaran,** ASP/EEE attended a one day Workshop on "DST-GDC INCUBATE Program: A Gamechanger for Deep-tech Startups" organized by IIT Madras.

**Dr. Rajesh Panda,** AP/EEE has completed a online course on "Modelling, Policy and Political Economy by Climate Compatible Growth" on 31st March 2025.

Dr. Muthu Selvan N. B., ASP/EEE, attended an invited talk on "Quality Practices in Higher Education Institutions" on the 8th of July 2025. Following this event, he received an ISO Internal Auditor Certificate for successfully completing the IS/ISO 9001:2005, Quality Management Systems (QMS) Internal Auditor training course held on 5th-6th March 2025 from TUV India Private Limited.

Leo. ASP/EEE, attended International 5-Days Online Professional Development Program (PDP) on "Future-Ready Skills in Data Science & AI: Bridging Academia with Industry Practice" organized by Madanapalle Institute of Technology and Science, Madanapalle, Andhra Pradesh, from 21-7-2025 to 25-7-2025

Dr. Muthu Selvan N B, ASP/EEE, attended 40 hours duration online Faculty Development Programme on "Frontiers of AI: An Interdisciplinary Journey from **Fundamentals Futuristic** to **Innovations**" jointly organized by the Indian Institute of Information Technology, Nagpur, and the Electronics and ICT Academy (Phase-II), Pandit Dwarka Prasad Mishra Indian Institute of Information Technology, Design and Manufacturing, Jabalpur, during August 18-29, 2025 under an Initiative of the Ministry of Electronics and Information Technology, Government of India.

Dr. Muthu Selvan N B, ASP/EEE, attended Two-Week Faculty Development Program on "AI and EV Synergy: Driving the Evolution of Next-Gen Smart Energy Systems" at the Electronics and ICT Academy, NIT Patna & NIT Agartala, under the Scheme of financial assistance for setting up of Electronics and ICT Academies (Phase-II) by the Ministry of Electronics and Information Technology (MeitY), Government of India, from 7th July to 18th July 2025.



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#### 8. Events Organized

#### 8a) Webinar/ Guest Lecture Conducted

**Dr. Sajjan Kumar**, AP/EEE and **Dr. R. Ramaprabha**, P/EEE organized a guest lecture on **Solar Photovoltaic System Design & Analysis** on 24.09.2025 for B.E./EEE, III Year students. The lecture was delivered by **Dr. Anik Goswami**, SELECT, VIT-Chennai.

**Dr. Deepalaxmi** and **Dr. Raman Balireddy** organized a guest lecture titled "**Advanced Sensors for Electrical Applications**" delivered by **Dr. T. V. Narmadha**, Professor, Department of EEE, St. Josephs College of Engineering, Rajiv Gandhi Salai- 600119, for III Year EEE students.

#### 8b) Seminar Conducted

**Dr. V. Thiyagarajan**, ASP/EEE, has organized the Seminar on Fireside Chat with **Mr. Vaikkunth Mugunthan**, SSN alumnus and Co-Founder & CEO of Dynamo AI, under the banner of SSN-IEEE Power & Energy Society Student Chapter on 27/07/2025. (IEEE PES).

Dr. V. Thiyagarajan, ASP/EEE, organized a National Level Seminar on Dynamic Modeling for Analysis of Wind Farm and Grid Interaction in association with the IEEE PES Madras Chapter on 30 August 2025. The seminar was delivered by Dr. Bikash Pal, Professor, Department of Electrical and Electronic Engineering, Imperial College London, United Kingdom.

#### 8c. Workshop Conducted

**Dr. M Devesh Raj** (Coordinator) along with faculty members from EEE have successfully conducted the SPARC Workshop on "**Application of AI for Power Quality**" during 30 June- 8 July 2025.

Dr. V. Rajini, P & Head/EEE, Dr. V. Kamaraj, P/EEE, Dr. R. Seyezhai, P/EEE, Dr. R. Ramaprabha, P/EEE & Dr. M. Balaji, P/EEE organized a National Level Two Days Workshop on Experiential EV Training Workshop in association with ISTE Faculty Chapter, SSNCE & TEEV Pvt. Ltd. during August 12-13, 2025.

**Dr. V. Rajini, Dr.S.Krishnaveni, Dr. K.Usha** organised a workshop titled as "**Electrical Engineering** Pathways in the Future of Electric Vehicles" at EEE department on 8.8.2025.

The department of Electrical and Electronics Engineering in association with Institution Innovation Council (IIC) organised a workshop on "Lean Start-up and Minimum Viable Product" on 06.08.2025. The event was coordinated by Dr. V. Rajini, Dr. R. Seyezhai, Dr. R. Ramaprabha & Dr. M. Balaji.

The department of Electrical and Electronics Engineering in association with Institution Innovation Council (IIC) organised a workshop on "Converting"



#### Success through knowledge

Innovation into a Start-up" on 07.08.2025. 11) Other Activities The event was coordinated by Dr. V. Rajini, Dr. R. Seyezhai, Dr. R. Ramaprabha & Dr. M. Balaji.

#### 8d) International Conference Conducted

Dr V Thiyagarajan, Dr N B Muthu Selvan, and Dr Rajesh Panda, organized the IEEE Sponsored 11th International Conference on Electrical Energy Systems (ICEES 2025) during August 21-23, 2025.

#### 9) MoU Related News

An MoU was signed between Universitat Negeri Padang and Sri Sivasubramaniya Nadar College of Engineering on 21-8-2025 This MoU envisages scientific collaboration for joint product development, internships and research of mutual value. Dr. V. Rajini HoD/EEE coordinated the MoU.

Dr. V. Thiyagarajan, ASP/EEE, coordinated the MoU signing session with Brahmam Innovations and attended the seminar by Mr. Sampath Veeraraghavan on 01.08.2025.

#### 10) Industry Collaboration

Dr Muthu Selvan N.B., attended for discussion of "TN-IMPACT Hackathon 2025 Top 10 Problem Statements" as an academia expert along with The Tamil Nadu for Centre of Excellence Advanced Manufacturing (TANCAM) and M/s. Atribs/Shield Group, Chennai.

Dr V Rajini had a meeting with Dr Shruthi Srinivasan. James Cook University, Australia on 5-8-25 regarding collaboration.

Dr. R. Deepalaxmi, ASP/EEE served as a discipline committee member in the event "Maperum **Tamil** Kanavu" during August 7, 2025, held at SSNCE.

Dr V Thiyagarajan, ASP/EEE, attended the "Drug Free Tamil Nadu -Online **Meeting**" organized by the Directorate of Technical Education, Chennai.

Dr V Thiyagarajan, ASP/EEE, attended the "Annual Meeting of the IEEE Madras Section" at Hotel Palmgrove, Chennai.

40 students and 3 faculty from New Prince Shri Bhavani College Engineering and Technology, visited the high voltage lab of Department of EEE, SSN CE on 13-8-2025. The HV lab experiments were demonstrated to them. Demonstrations were provided by Dr V Rajini and Dr K Usha on curriculum aspects of HV engg, research and emerging technologies. They also visited Renewable energy lab. Demonstrations were made by Dr. A Mariselvam.



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IEEE Circuits and Systems Society Student Branch Chapter was approved on August 13, 2025 with faculty advisor **Dr. R. Ramaprabha**, P/EEE and Student Nominee is **Mr. S. Mohamed Anas**, IV Year EEE.

Dr. R. Ramaprabha delivered an inaugural address in the event Vision to Venture An Intercollegiate Entrepreneurship Pitch Competition conducted by SSN-IEEE student branch on Aug 04, 2025.

**Dr. V. Thiyagarajan**, ASP/EEE, coordinated the discipline and managed the arrangement of volunteers during the First-Year Orientation Programme held on 21/08/2025 and 22/08/2025.

**Dr. V. Thiyagarajan**, ASP/EEE, reviewed a research paper submitted to the international journal "**Jurnal Teknologi**" on 19/08/2025.

**Dr. V. Thiyagarajan**, ASP/EEE, reviewed a research paper submitted to the international journal "**ISA Transactions**" on 27/08/2025.

**Dr** R. Leo, ASP/EEE has reviewed one International Journal paper in **Frontiers** in **Energy Research** on July 17, 2025.

**Dr. Rajesh Panda, AP/EEE** reviewed one paper in **IEEE IAS Publications** on 20th July 2025 and one in **IEEE Access Journal** on 12<sup>th</sup> July 2025.

**Dr Muthu Selvan N B,** ASP/EEE, reviewed a research paper for the journal "Electric Power Systems Research" on 01.08.2025.

**R. Ramaprabha** acted as Co-Convener and chaired a session on Aug 21 in 11th International Conference on Electrical Energy Systems (ICEES - 2025), organized by the Department of EEE, SSN College of Engineering, Chennai, held during Aug 21 -23, 2025.

**Dr.R.Deepalaxmi**, Asso.Prof/EEE served as a domain expert member-Electrical Machines during August 12, 2025 by reviewing the UEE2502-Electrical Machines-II (R-2021) of III year/V Sem EEE.

Dr. K. Murugesan, SPURS Mentor delivered the welcome address in the orientation program for students admitted under SPURS (Scholarship for potential Undergraduate Rural Students) scheme, SPURS-Orientation 2025-2026 on 16th July 2025 at Central Seminar Hall.

**Dr R Seyezhai**, P/EEE conducted the first class committee meeting for the first year M.E, PED and briefed about the R2O25 Curriculum, pattern of CAT QP and approved NPTEL courses and internship.



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Dr.S.Krishnaveni attended First Saveetha member School in Engineering, Chennai on 17.7.2025.

Dr R Seyezhai, P/EEE attended the meeting with Mr.Suresh, Cocreate to discuss about the minor හි entrepreneurship innovation and conduct of value added courses and the meeting was presided by our President, SSNI.

iournal for the journal paper paper "Engineering Applications of Artificial Electrical Power and Energy Intelligence" on 03.07.2025 and 19.07.2025.

Thiyagarajan, ASP/EEE, international journal **Electric** Power Systems Research on 03/07/2025.

journal "Measurement" on 08/07/2025.

Dr. V. Thiyagarajan, ASP/EEE, reviewed a December 19-21, 2024. research submitted paper the 08/07/2025.

papers for AICARE-2025 international II year/III Sem EEE. conference & 2 papers for ICEES-2025 conference on 22/09/2025 and 23/07/2025 respectively.

DC Dr.R.Deepalaxmi, ASP/EEE served as a lab meeting for a research scholar as a DC experiment assessment committee member of during July 3, 2025 by reviewing the UEE Analog and Digital Laboratory Manual (R2024) of II year/III Sem EEE.

> in Dr.R.Deepalaxmi, ASP/EEE served as a Measurements & Instrumentation Lab administrator during July 21, 2025 by preparing the key result areas of lab assistant for academic year 2024-25.

Dr Muthu Selvan N B, ASP/EEE, reviewed Dr. Rajesh Panda AP/EEE reviewed one in International Journal System, on Elsevier on 16th July 2025.

**Dr. Rajesh Panda** reviewed 3 papers in has 2nd International Conference on Signal reviewed the manuscript submitted to the Processing, Communication, Power, and Embedded Systems (SCOPES), by the organized Department Electronics and Communication Dr V Thiyagarajan, ASP/EEE, reviewed Engineering, School of Engineering & the paper submitted to the international Technology, Centurion University of Technology and Management, Paralakhemundi. Odisha during

international journal "Energy Reports" on Dr.R.Deepalaxmi, ASP/EEE served as a domain expert member-Electrical Machines during August 9, 2025 by reviewing the Dr. Sajjan Kumar, AP/EEE reviewed 3 UEE3301-Electrical Machines-I (R-2024) of



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**Dr. R. Ramaprabha**, P/EEE discipline committee member for INVENTE25 during Sep (26-27), 2025

**Dr.S.Krishnaveni**, ASP/EEE conducted the First DC meeting for the research scholar Ms. Jeroline Mary S.

**Dr.S.Krishnaveni** ASP/EEE conducted the first DC meeting the scholar Ms. Jasmine Susila D.

**Dr** R **Seyezhai**, P/EEE alongwith the course incharges of Design Thinking, Innovation and Entrepreneurship visited the School of Design Thinking, Intellect Design Arena, Navallur, OMR, Chennai on 26.08.2025.

**Dr. Muthu Selvan N. B.** reviewed papers for the 6th IEEE Indiscon conference, conducted by the IEEE Rourkela Section and the IEEE India Council, held at NIT, Rourkela, Odisha, from 21 to 23 August 2025.

**Dr. V. Thiyagarajan,** ASP/EEE, attended the meeting on 18/09/2025 at the CoE Office to finalize the UG and PG model lab examination and end-semester viva/lab examination schedule for the Nov./Dec. 2025 examinations.

**Dr. Muthu Selvan N.B.,** ASP/EEE and IEI Convener for SSNCE, renewed the IEI student's chapter for the Chemical Engineering, Electrical and Electronics Engineering, and Civil Engineering Departments on 22 July 2025 and 30 July 2025.

**Dr. V. Thiyagarajan**, Associate Professor / EEE, attended the IEEE Power & Energy Society ExeCom Meeting organized by the Power & Energy Society, IEEE Madras Section on 19.09.2025.

**Dr. Muthu Selvan N. B.,** Associate Professor, EEE, reviewed a research paper in the International Journal on Engineering Applications of Artificial Intelligence on 11th September 2025.

**Dr. S. Radha**, Principal, SSNCE and **Dr. R. Ramaprabha**, P/EEE (SSN NIRF Nodal officer) attended the release and Award Ceremony for India Rankings 2025 (NIRF) by Honble Minister of Education, **Shri Dharmendra Pradhan** at Auditorium 1, Bharat Mandapam, ITPO Gate No. 7, New Delhi-110001 on 04.09.2025.

**Dr. Muthu Selvan N.B.,** ASP/EEE, scrutinized the records and documents of the Electrical Maintenance Department as a part of the ISO audit process for the year 2025 on 20-08-2025.



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Dr. Muthu Selvan N. B., ASP/EEE IQAC and ISO coordinator of EEE Department, audited the course files of the UG and PG subjects for the ISO Audit and for the Part A2 performance appraisal.

Dr. Muthu Selvan N. B., ASP/EEE and Dr. Mariselvam, AP/EEE ISO Coordinator of EEE, provided the records and documents of the EEE Department for Internal ISO Auditors appointed by the ISO /IQAC Cell on 11-08-2025.

Dr R.Leo has reviewed one paper in International Journal - e-Prime - Advances in Electrical Engineering, Electronics and Energy on 15.09.2025

Dr. Muthu Selvan N. B., ASP/EEE, reviewed a journal for the Defense Science Journal on 25 - 08 - 2025

member-Electrical domain expert Machines during September 22, 2025 by reviewing the CAT-II question paper UEE3301-Electrical Machines-I (R-2024) of II year/ III Sem EEE.

Dr.R.Deepalaxmi, ASP/EEE served as a member-Electrical domain expert Machines during September 23, 2025 by reviewing the CAT-II question paper UEE2502-Electrical Machines-II (R-2021) of III year/V Sem EEE.

Dr.R.Deepalaxmi, Asso.Prof/EEE served as a Measurements & Instrumentation Lab administrator during September 24, 2025 by doing purchase of consumables with the help of lab assistant Mr.R.Alagar Raju for the academic year 2025-26.

Dr Muthu Selvan N.B, ASP/EEE along with Gnanaprakash. ASP/Chem. scrutinized the records and documents of Mechanical Department as a part of ISO audit process on 14.08.2025.

 $\mathbf{Dr}$ Leo, ASP/EEE arranged accompanied Second year EEE students for Industry visit to North Chennai Thermal Power Plant stage II during September 29 and 30, 2025.

Dr. Rajesh Panda has reviewed one paper in IEEE Transactions on Smart grid.

Dr.R.Deepalaxmi, ASP/EEE served as a The inaugural function of SSN IEEE CAS Society Student Chapter was held on 24.09.2025 at Seminar Hall, Department of EEE. Dr. V. T. Sreedevi (Former Chair, IEEE PELS Society, Madras Section), Professor, SELECT, VIT, Chennai was the Chief Guest for the event.

> Dr. V. Thiyagarajan, ASP/EEE, attended a meeting with Prof. Ganesh Samudra on 16.09.2025 to discuss the effective implementation of open book assessment for the course UEE3303 Digital Logic Circuits.



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#### 12) Renown Visitors

**Dr. Narottam K. Das,** Professor, **CQ** 01/08/2025. **University, Australia**, presided over the llth International Conference on Electrical Energy Systems(ICEES2025) as the Chief Institutions Guest. He also delivered the inaugural and **Awareness** keynote addresses on August 21, 2025. He visited the various labs of the department on 22-08-2025. He also interacted with of drug ab the faculty and research scholars of the lifestyle. The EEE department on 23-08-2025.

Dr. Krismadinatta, Professor & Rektor. Universitas Negeri Padang, Indonesia, presided over the 11th International Conference on Electrical Energy Systems(ICEES2025) as the Guest of Honor. He also delivered the keynote addresses on August 21, 2025 and also signed an MoU with the Department of EEE. He visited the various labs of the department on 22-08-2025 and also interacted with the faculty and research scholars of the EEE department on 23-08-2025.

#### 13) Student Extra Curricular

**Dr V Thiyagarajan**, ASP/EEE organized the "**YRC Orientation Programme**" for SPURS Students on 22/07/2025.

**Dr V Thiyagarajan,** ASP/EEE, organized a Wall Painting Event at Chennai Primary School, Karapakkam, for the **Youth Red** 

**Cross (YRC)** student volunteers on 17/07/2025, 23/07/2025 & 24/07/2025, and on 01/08/2025.

Youth Red Cross (YRC) unit of SSN Institutions organized a series of Anti-Drug Awareness Competitions from August 05 to August 11, 2025, with the objective of educating students about the harmful effects of drug abuse and promoting a drug-free lifestyle. The event is coordinated by Dr V Thiyagarajan, ASP/EEE.

**Dr.R.Deepalaxmi**, ASP/EEE prepared and submitted the consolidated internship details of students of batches (2022-26), (2023-27), and (2024-28) with the help of Ms.M.Durgai Vadivu, Lab Assistant/EEE on August 3, 2025.

Srinath S V and Atchayakkumar M (Final year, B.E. -EEE) with Dr.M.Devesh Raj, Associate Professor, EEE (Faculty Mentor) won 2nd prize in the Student Innovation Hackathon 2025, conducted by Christ the King Engineering College, Coimbatore during September 26th and 27, 2025.

**Dhanushram K** and **Kavin P** (Final year, B.E. -EEE) with **Dr.M.Devesh Raj**, Associate Professor, EEE (Faculty Mentor) participated in the Student Innovation Hackathon 2025, conducted by Christ the King Engineering College, Coimbatore, during September 26 and 27, 2025

Highlighting our department dynamic events



#### **SNIPPETS**





Ayudha Pooja Celebration @ EEE -1/10/2025









SIH-Internal Hackathon @ EEE - 24/9/2025

Highlighting our department dynamic events



#### **SNIPPETS**





Dr V.Kamaraj , Dr M.Balaji, and Dr N.B.Muthuselvan visited Nissi Engineering on 19/09/2025 Located at Thiruvallur highway and had technical interactions.





Dr. Sajjan Kumar, and Dr. R. Ramaprabha, arranged a guest lecture on "Solar Photovoltaic System Design & Analysis" on 24.09.2025. The talk was delivered by Dr.Anik Goswami, SELECT, VIT Chennai





#### 11 th International Conference on Electrical Energy Systems (ICEES 2025)





The 11th International Conference on Electrical Energy Systems (ICEES 2025) was held from 21–23 August 2025 in Chennai, India, organized by Sri Sivasubramaniya Nadar College of Engineering. Since its inception in 2011, ICEES has evolved into a premier international forum for bringing together researchers, academicians, industry professionals, and practitioners to share knowledge, foster collaborations, and discuss emerging challenges in the field of electrical energy systems.

#### **Objectives and Scope**

ICEES 2025 aims to advance cutting-edge research and innovation in electrical energy systems. The conference features keynote addresses, technical paper presentations, and panel discussions covering a wide spectrum of topics including smart grids, renewable integration, electric vehicles, power electronics, sustainable technologies, and advanced energy management systems. Responding to the global need for low-carbon and intelligent grid solutions, ICEES has attracted significant attention worldwide.

This edition of the conference received over 950 high-quality submissions from more than 15 countries, including contributions from prestigious institutions such as Oakland University, Wichita State University, Trine University, University of Portland, University of Texas, Arizona State University, Universiti Teknologi Petronas, Glasgow Caledonian University, National University Bangladesh, University of Baghdad, and University of Arad. Following a rigorous peer-review process, 150 papers have been selected for oral presentation, ensuring a rich and diverse technical program.

### Highlighting our department dynamic events





**Dr. Narottam K Das**Professor

School of Engineering and Technology, CQ University, Australia



**Dr. Krismadinata** Professor & Rektor

Universitas Negeri Padang, Indonesia



**Dr G Renuka Devi** Associate Professor

School of Engineering Jawaharlal Nehru University, India



Dr Marco Rivera

Professor

Department of EEE University of Nottingham United Kingdom



**Dr Cheng Chin**Professor & Director of
Research

Department of Marine Technology Newcastle University, Singapore



**Dr Balas Valentina Emilia** Professor

Department of Automatics & Applied Software
Aurel Vlaicu University of Arad,
Pomania

The conference also featured distinguished keynote lectures by renowned experts. Their insights, combined with 14 parallel technical sessions, fostered impactful discussions and promoted international collaborations. Each technical session is chaired by eminent professors and experts from premium Indian institutions including Motilal Nehru National Institute of Technology (MNIT), Combat Vehicles Research & Development Establishment (CVRDE – DRDO Chennai), Pondicherry University, Indian Institute of Engineering Science and Technology, (IIEST) Shibpur, Biju Patnaik University of Technology, Manipal Institute of Technology, and VIT University.

Highlighting our department dynamic events



# Two days Workshop on "Experiential EV Training Workshop"



The Department of Electrical and Electronics Engineering organized a National Level Two Days "Workshop on "Experiential EV Training Workshop" in association with ISTE – Faculty Chapter, SSNCE & TEEV Pvt. Ltd. during August 12 &13, 2025.

It offered participants an in-depth insight into the latest developments in electric vehicles (EVs) and battery technology. Conducted by industry professionals from Team Energy Electric Ventures Pvt. Ltd., (Mr. Vijayakumar & Team) the workshop aimed to highlight emerging trends in EV and battery innovations, provide practical training in the construction and assembly of two-wheeler battery packs, and foster a collaborative environment for networking and knowledge sharing among participants, experts, and researchers. 39 participants from the other institutions participated in this workshop.

#### Day 1 (12.08.2025)

Session 1 – Basics of Electric vehicle (EV) and Battery technology.

Session 2 – Demonstration of Advanced Cell battery pack construction.

The session introduced the core principles of electric vehicles, detailing their components, operating mechanisms, and recent innovations in battery technology. During the demonstration segment, participants observed the battery pack construction process, with particular emphasis on battery sizing, assembly methods, and the critical role of battery management systems.

### Highlighting our department dynamic events



#### Day 2 (13.08.2025)

Session 1 – Demonstration of EV two-wheeler chassis assembly, including motor and controller.

Session 2 – Assembly of two-wheeler body and all relevant components & test drive of the fully assembled drive.

The session featured a practical demonstration of assembling the chassis of an electric two-wheeler, with a focus on integrating the motor and controller. Participants then proceeded to assemble all key components of the vehicle, culminating in a test drive of the fully assembled two-wheeler to assess its performance.





#### Feedback

Participants reported high satisfaction with the workshop, emphasizing its practical relevance and the expertise of the facilitators. They valued the hands-on learning experience and the chance to engage with industry professionals. Many expressed interests in attending similar workshops in the future.

#### Conveners

Dr. V. Rajini

Dr. V. Kamarai

#### Coordinators

Dr. R. Seyezhai

Dr. R. Ramaprabha

Dr. M. Balaji





#### Workshop on "Lean Start-up & Minimum Viable Product"



The department of Electrical and Electronics Engineering in association with Institution Innovation Council (IIC) organized a workshop on "Lean Start-up & Minimum Viable Product" on 06.08.2025. Dr.R.Seyezhai, Professor, Department of EEE delivered the lecture. The workshop was attended by UG students, research scholars and faculty members.

The session provided an overview of the Lean Start-up methodology and highlighted the role of the Minimum Viable Product (MVP) in product development. It focused on the key aspects of building a successful product, starting with the importance of developing an MVP by emphasizing core functionalities and iterating based on user feedback. The speaker emphasized the need for setting clear goals, understanding the target market, and effectively allocating resources. The MoSCoW principle for feature prioritization—Must Have, Should Have, Could Have, and Will Not Have—was introduced, with a meal planning app used as an example to illustrate its practical application.

#### **Faculty Coordinators**

Dr.V.Rajini Dr.R.Seyezhai Dr.R.Ramaprabha Dr.M.Balaji

### Highlighting our department dynamic events



#### Workshop on "Converting Innovation into a Start-up"



The department of Electrical and Electronics Engineering in association with Institution Innovation Council (IIC) organised a workshop on "Converting Innovation into a Start-up" on 07.08.2025. Dr R. Vimal Samsingh, Associate Professor, Department of Mechanical Engineering, SSN College of Engineering, delivered the lecture. The workshop was attended by UG students, research scholars and faculty members.

The session provided participants with a comprehensive understanding of the innovation-to-start-up journey. It focused on identifying real-world problems, generating innovative solutions, and assessing the feasibility of ideas through structured validation techniques. Participants gained knowledge in applying design thinking, developing business models, and creating Minimum Viable Products (MVPs). The fundamentals of customer discovery, market analysis, and competitive positioning were discussed. Additionally, participants gained the skills to prepare compelling pitch decks and effectively present their ideas to potential investors or incubators. The workshop also aimed to instill an entrepreneurial mindset by encouraging risk-taking, resilience, and iterative development. Participants gained knowledge on how to develop a viable start-up concept, create a draft business model, and identify a clear pathway to pursue further development, funding.

#### **Faculty Coordinators**

Dr.V.Rajini Dr.R.Seyezhai Dr.R.Ramaprabha Dr.M.Balaji

### Highlighting our department dynamic events



Guest Lecture on "Advanced Sensors for Electrical Applications"



The department of Electrical and Electronics Engineering organized a guest lecture on the topic "Advanced Sensors for Electrical Applications" on September 9, 2025 at EEE Seminar hall for III Year/V Sem EEE students. The resource person for the guest lecture was Dr. T. V. Narmadha, Professor, Department of Electrical and Electronics Engineering, St. Joseph's College of Engineering, Rajiv Gandhi Salai, Chennai. The topics covered in the guest lecture are sensor applications in power systems, renewable energy ( Hybrid tracking system) , biomedical engg etc., Nearly 101 students benefited from this guest lecture.

#### Convener:

Dr. V. Rajini, HOD/EEE, SSNCE

#### Coordinators:

Dr. R. Deepalaxmi ASSP/EEE,SSNCE Dr.Raman Balireddy, AP/EEE, SSNCE





### IV 2025

#### A journey beyond destination

Organising the Industrial Visit (IV) 2025 was not just about going on a trip, it was a whole journey filled with planning, struggles, last-minute changes, and a lot of teamwork. What started as a small idea slowly became one of the best experiences of my college life, mainly because of the 20 students who worked together like a family to make it happen.

The thought of an IV came up around the end of August, and from there I started building a team. Once the team was set, we split the work—handling money, talking to travel agencies, and taking care of formalities. My job was to keep track of things and make sure nothing got left behind. At times it was tough, but because everyone in the team gave their best, it always felt possible.

At first, the plan was to go to Kerala. But soon we faced one of the biggest hurdles—finding faculty to accompany us. No matter how much we tried, things kept moving slow, and honestly it felt like we had to push harder than the support we got. Still, after weeks of effort, we managed to confirm Mr. Sundareshwaran Sir and Mrs. Nagapandiselvi Ma'am. Without them, the IV would not have been possible.

Just when we thought everything was settled, a bigger problem came uponly four days before the trip, the ticket bookings failed. For a moment it felt like the whole plan was going to collapse. But the team didn't lose hope. After a lot of quick discussions, we decided to change the destination to Karnataka. What really impressed me was how all the students accepted the sudden change without complaints. That unity gave us confidence to move ahead.

### Highlighting our department dynamic events



During the trip, being part of the organising team meant I couldn't enjoy everything as freely as others. There were moments when I felt tired or wished I could just sit back and relax like my friends. But every time I looked around and saw the laughter, the excitement, and the smiles on their faces, it felt like all the struggles were worth it. Those happy faces reminded me why we worked so hard in the first place, and they gave me the energy to keep going no matter how drained I felt.

In the end, the positive feedback from students felt like the biggest achievement for all of us. It wasn't just my win or any single person's win—it was the victory of one strong team that stood together through every problem. For me personally, it also showed that when you don't give up and when people work as one, even big hurdles can be turned into unforgettable memories



The success of the visit was due to the support of Mr. Sundareshwaran Sir, Mrs. Nagapandiselvi Ma'am, and the dedicated work of the organisers.

An article by: Harinath Vaitheeshwar S





### One last IV

#### An Unforgettable Journey

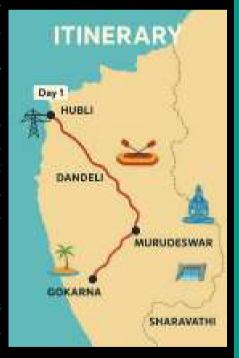
Trips often seem so pleasing and fun—and they really are. But what most don't see is the work behind the scenes. Let me take you through how we organized our ONE LAST IV of our batch.

We usually go on IVs during even semesters, but new rules demanded us to go during the 5th semester itself. The catch? We only came to know about it when we had barely 20 days left for the best available date.

Last year too, I was in the organizing team, and the biggest hurdle we faced was finding faculty to accompany us—especially female faculty. But this time, that turned out well. We got the two best—Dr. Mariselvam and Dr. Usha. That felt like a good start.

Then came the toughest decision: choosing the itinerary. From the very beginning, I wanted one thing—this IV should be an unforgettable for everyone. After experience discussions with travel agents and among ourselves, we finalized North Karnataka, a land of beaches, waterfalls, power stations, and adventure. We made sure the plan wasn't overcrowded. We didn't want it to feel like a checklist trip. It had to be relaxed, balanced, and fun. The first draft ended up costly (thanks to Wonderla tickets), so we reshaped the plan to keep it affordable-because we didn't want anyone left out. One of our smartest moves was availing the railway concession (50% off!)—a process most skip due to how tedious it is. But we

gave it a shot. (More on this later.)



### Highlighting our department dynamic events



#### The Industry Hunt

Here came the official hurdle—getting permission from industries in North Karnataka. Without this, the trip wouldn't even get college approval. I spent days preparing letters, sending emails, and making endless follow-up calls. Government industries like **PGCIL** and **KPTCL** were not easy to approach.

Through all of this, Dr. Mariselvam stood by us—helping with contacts, calls, and mails. Even when I had to attend a family function for a day, my friends **Sam and Shan** carried the groundwork forward. Finally, after sleepless efforts, we got approval—with only **7 days left**.

#### The Railway Concession Saga

This deserves its own section. Everyone warned us: "Don't bother with railway concessions—you'll never get it." But we didn't want to leave such a huge benefit unused. With the help of **Lal Sir** and some guidance from seniors, we decided to give it a shot.

That's when we realized why people avoid it. Imagine filling 15 forms, each with 18 names, and for every form you have not one but two carbon copies underneath. The catch? Both copies had different print alignments. So every single name, number, and signature had to be lined up perfectly. We ended up setting the forms on a transparent pad with a light glowing behind it—like a movie scene—carefully tracing each line so all three sheets aligned. Hours passed, mistakes happened, and there was no room for correction or overwriting. It was a test of patience, concentration, and sheer willpower.

One mistake wasn't just about re-filling a page—it meant risking the concession itself, the very thing that kept the trip affordable. If the budget shot up, many would've dropped out. We spent two separate nights filling two different sets of forms—one for concession, another for reservation. And still, it took **three trips to Chennai Central**: the first failed because we reached late (they say), the second because they needed a different seal, and finally, the third one got everything right. Only then did we walk out

### Highlighting our department dynamic events



with the concession in hand. But when we finally held those concession-approved tickets in our hands—with only 3 days left before departure—the relief and happiness we felt is hard to put into words.

#### The Trip Itself

Finally, September 16 arrived. From the first train ride to Bangalore, the group vibe was unmatchable. Conversations, laughter, and excitement filled the air.

**Day 1**: We visited the **220 kV Hubli Substation**, where the AE personally explained the operations. Then we checked into **Tusker Trails**, **Dandeli**—pool fun, rain dance, campfire. Pure magic.



Day **2**: Adventure sports—rope balance, kayaking, zorbing, zipline, and the unforgettable **Kali river rafting**.







**Day 3: Om Beach** and **Kudle Beach, Gokarna**—the cliff beaches gave a calm, soothing vibe. Later, the **Mangrove forest** and **Murudeswar temple** with its grand sea view.



**Day 4**: Visit to **Sharavathi Power Generating Station** and **Linganamakki dam** (fun fact: Tamil movie *Lingaa* was shot here). Then came **Jog Falls**—India's second tallest waterfall. Absolutely breathtaking.

Highlighting our department dynamic events







Even behind the scenes, there was constant coordination—managing finances, finding ATMs at midnight, making sure everyone boarded the train/bus, got food, got their rooms, and felt comfortable.

But in the end, the joy on everyone's faces said it all. The bus dances, train conversations, beach vibes, devotional evenings, poolside fun, campfires, and group parties—it all came together as one of the most unforgettable experiences of our lives.



### Highlighting our department dynamic events



#### The Gratitude

Looking back, I can say this IV would never have been possible without the people around me.

First and foremost, my heartfelt thanks to **Dr. Mariselvam and Dr. Usha**. They weren't just faculty in charge—they were companions who matched our energy, stayed approachable, and supported us in every single step. Their presence gave us confidence when things felt shaky.

I want to specially thank **Sam**, who stood by me through every single decision, every sleepless night, and every tough call. He was not just supportive—he was irreplaceable.

And then there are so many others I'm grateful for—Francis, Ravinder, Aswin, Poojith, Vignesh, Kathir, Lokaraj, Harvin... each one of them gave life to the plans, helped me execute the details, and stuck with me until the end. Without them, this trip wouldn't have turned out the way it did. I'll always carry that gratitude with me.

Most importantly, I want to thank **each and every one of my batchmates**—because without everyone's cooperation, this trip would never have unfolded the way it did. Every smile, every bit of patience, every hand that helped—it all mattered more than words can say.

#### What I Learned

When we first started planning, not many people showed interest in the trip. It almost felt like we were the only ones holding onto it—sacrificing sleep, missing classes, skipping meals, juggling lab records and assignments—just to make it happen. At one point, we even asked ourselves: For whom are we doing all this?

Every single step came with a new problem. It felt impossible so many times. But we refused to give up. We wanted to finish what we started. We wanted to see this dream through, no matter how exhausting it got.

And in the end—when it was all over, when our friends came forward and thanked us personally, saying we had given them an unforgettable experience—that moment was priceless.





That's when every sacrifice, every sleepless night, every frustration suddenly felt **worth it**.

This trip taught me something important: efforts might feel invisible at the start, but when you stay consistent, when you keep going despite the odds, those efforts blossom into something beautiful. And when people recognize that, it's one of the most fulfilling feelings you can ever experience.

This IV was never about me; it was about us. I just happened to hold the strings together while everyone else gave it life. Grateful to have been part of creating this memory for our batch.

Yuvaraj G EEE'27, SSNCE.





### Our Eye-Opening Journey at North Chennai Thermal Power Station

Boobesh IR, 2nd yr

Let's be honest - when our department announced another industry visit, most of us weren't exactly jumping with excitement. We'd just wrapped up an IV tour and survived Invente week. Exhaustion was real. But here's the thing about opportunity: it doesn't wait for you to be ready. It shows up anyway.

And honestly? We were just happy to skip classes and labs for a day. Sometimes the best experiences start with the lowest expectations. You know that feeling when theory suddenly explodes into reality? That's exactly what happened when we stood before those massive turbines.

We've studied generators in our textbooks. We've solved problems about power conversion. We've memorized formulas. But nothing - absolutely nothing - prepares you for the sheer scale of industrial power generation.

Those enormous turbines are responsible for 75% of the energy conversion process. The numbers weren't just equations anymore - they represented megawatts of power lighting up entire cities. Power generation isn't about the generators we imagined; it's about these colossal turbines transforming energy at a scale we'd never conceptualized before.

This is the difference between knowing and experiencing. Between reading numbers in a textbook and understanding what those numbers mean in the real world.

The Chief Manager of the plant didn't just show us around - he walked us through reality. He talked about: The complete power generation process, Job opportunities we'd never considered, Internship possibilities that could shape our careers, The stability and safety of government sector positions.

Highlighting our department dynamic events







And here's what struck me: this wasn't just a tour guide speaking. This was someone who'd spent years in this field, sharing wisdom we couldn't find in any syllabus.

We haven't even started our Power Generation subjects yet, but we saw the future of our curriculum come alive. Everything we'll study in those upcoming subjects? We've now seen it operating at full scale.

That's the power of exposure - it doesn't just add to your knowledge; it transforms how you'll absorb everything that comes next.

This is what real exposure does. It's not about collecting certificates or ticking boxes. It's about those moments when your perspective shifts, when abstract concepts become tangible reality, when you suddenly see a path you didn't know existed.

# **CAMPUS BUZZ**

Capturing the spirit of every corner



### SBC60551H – IEEE CAS Society Student Branch Chapter

The inaugural function of SSN – IEEE CAS Society Student Chapter was held on 24.09.2025 at Seminar Hall, Department of EEE. Dr. V. T. Sreedevi (Former Chair, IEEE – PELS Society, Madras Section), Professor, SELECT, VIT, Chennai was the Chief Guest for the event. Dr. V. Rajini, Professor & Head, Department of EEE and Dr. S. Karthika, Student Branch Counselor graced the occasion. The office bearers of the society student chapter were announced by Dr. R. Ramaprabha, Faculty Advisor. The event was coordinated by the students under the guidance of Faculty coordinator, Dr. S. Krishnaveni, Associate Professor/EEE.

#### The Office Bearers are

Chair	Mohamed Anas S
Vice Chair	Felicia Jenny FJ
Secretary	Chindhana K
Technical/ Design Head	Dhanush Ram K
Treasurer	Kathir Ezhil A
Project Chair	Shanmuga Sundaram V
Event Coordinator	Anantha Laxmi S
Joint Event Coordinator	Nidhi Krishna





The inaugural function was followed by the event IDEATE, wherein the students were presented their ideas and prizes were distributed for the winners.

### **CAMPUS BUZZ**

Capturing the spirit of every corner



# A Quick Behind The Scenes Preview of SSN-SNUC MUN'25

-Krtin Narayanan, 3rd year EEE-A

Having delegated in MUN conferences over the last 8 years, organizing a conference was not something I had done even during my school days simply because all the conferences were virtual due to COVID-19. I recently had the privilege of serving as the Undersecretary General(USG) of Finance alongside Janeshwar Sivakumar(4th Year SSN- CSE) and Harsha Vardhana Anand(4th Year SNUC-AI DS) for this year's SSN-SNUC MUN 2025 conference and it was one of the most intense, exhausting and exhilarating experiences that I ever had

the joy of doing. I'm so used to actively delegating and focusing on the committee, that I never for a moment thought about the momentous behind-the-scenes action that would be needed to pull off a conference at this scale. We are talking about 8 committees, 8 separate venues scattered across SSN, SNU Chennai and SNUC Law across 3 days with more than 200 delegates from school and colleges across Tamilnadu. This conference has been a spanner in the works for at least 4 months, with various verticals working around the clock to ensure that the preparation, delivery and execution of the conference ran impeccably.

SSN-SNUC MUN has been one of the largest college MUN conferences in the Chennai circuit for more than decade now so expectations were already extremely high. As the USGs of Finance we had to ensure that the expenses we were incurring over the course of the 3 days were perfectly balanced with the income we were getting from the registration fees and sponsorship amount. Meeting this criteria was crucial and involved spending days on excel sheets tallying everything up to make sure that we were financially on track. We simultaneously had to focus on creating budget reports on the financial aspects of the conference, largely concentrating on income and expenditure alone to ensure that the SSN-SNUC management were fully up to date on how we were going to run this conference financially - clarity was critical and making sure that the numbers added up was just as important.

### **CAMPUS BUZZ**

### Capturing the spirit of every corner



After locking in our financial reports, we focused on ensuring that the payment portals were active and ready for use so that the delegates had a seamless experience paying for the conference. The final part was the cheques and tallying them up so that the respective award winners and Executive Board(EB) members were able to receive their remuneration properly after the conference was over. The craziest part was that all of this was simply in preparation for the conference itself and this was just the trailer!

During the 3 active days of the conference, some of the Undersecretaries General also had to double up as Liaison Officers(LOs) along with General Administrators(GAs) to ensure the smooth functioning of the conference. This included coordinating with the Logistics vertical to ensure the smooth distribution of placards, stationary items and delegate kits, coordinating with the Delegate Affairs vertical for the registration of incoming delegates at the committee venues themselves, guiding and assisting delegates to their respective committee venues, positioning sufficient LOs in the respective committee venues to ensure the smooth distribution of items such as chits, actively taking care of the venues to ensure the facilities such as AC, Mics, junction boxes and projectors work, coordinating lunch breaks for the 8 committees for over 3 hours with the Technical and Hospitality verticals to distribute lunch seamlessly and so much more. Ensuring all of this ran fluidly was a tremendous challenge while being rewarding at the same time but over the course of the 3 days we made sure that the delegates had a great time at the conference. During the awards ceremony as a part of the Finance Team we had innovated a unique way to ensure that the award winners and EB members managed to receive their respective cheques faultlessly without causing confusion by integrating cashless payments such as GPay for the very first time - something which was learnt from and implemented based on improvements over the previous year's conference. conference, we collected the expenses that were incurred over the 3 days in the form of bills and looked at reimbursements on the same while also updating the management about the cheques that were distributed. This conference would not have been as flawlessly executed if it were not for the countless General Administrators who tirelessly worked to fulfill the needs of every delegate and executive board member of this conference while making it a grand success.

Showcasing Talents, Ideas and Achievements

### My First Step After a Year

-Nithesh Kumar, 2<sup>nd</sup> year

So I got a chance to go the JET Potential Technical Event held at St. Joseph College of Engineering with few of my classmates, where I and my other two friends(Ram Prasad and Ritish) took part in three events namely Circuitrix, Tech Charades and Technical Quiz. It was my first time to attend such a technical event as my title says. We didn't keep our hopes high and we didn't have any expectations at first. But after we got selected for the second round in both Circuitrix and Technical Quiz we got out hopes high, to at least win in a single event. The Circuitrix event covered most of the Circuit analysis concepts at the first round, while the Technical Quiz covered mostly the things from Electrical Machines. I wasn't good at guessing things by using clues so I couldn't help my teammates in that. But in terms of Circuitrix we knew most of the things in round 1. In the case of Technical Quiz, as it involved the topics from Electrical Machines 2, we struggled a bit in round 1 but at last we got selected. For the Second Round in Circuitrix they started showing different Analog and Digital Electronics circuits. We did somewhat better than expected in Analog Circuits but for Digital Electronics as expected, we struggled a lot to figure it out. because we aren't introduced to such circuits till now. Also there was a bonus round, where we are asked to arrange the shuffled sheet of paper which was actually a Analog Circuit along with a graph. Even though we finished the thing earlier, we didn't actually knew that it was correct and we were just checking it, till the last moment. Because we didn't know about that too....(Like we know something about it, but still we couldn't figure out few things). So we were the 5th team out of 6 to finish the bonus round. Then as the time of Ciruitrix round 2 and Technical Quiz round 2 clashed, my teammate Ritish had to attend Technical Quiz for the mean time so that we can join him in the mid. After we went to Technical Quiz, we started to have a bad start, we knew answers for the questions which are asked to other teams while we knew nothing about the things that are asked to us(The Bad luck is that, actually we were seated as the 6th and last team at first as we entered, but as Ritish couldn't see the PPT properly we switched to a nearer bench and hence we became Team 3.

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# STUDENT SPOTLIGHT

Showcasing Talents, Ideas and Achievements

Also we knew all the answers, for the questions asked to Team 6). We didn't know those things because they come in our Electrical Machines 2 Course and we are currently studying Machines 1. But still we managed to answer few things. And to make things worse, in the bonus round, we were asked to answer the questions as quickly as possible and the team doing it would get extra points in round 2. Even though we knew the answers for most of the questions, some teams raised their hands even before the question was displayed and to make things worse, the coordinating team lacked coordination between them and they started arguing for who lifted the hands first.

At last we didn't get selected for any prize but it was a wonderful experience to go there, because it made me realize a mistake that we did. The mistake is that, we just thought of returning to our college as soon as possible so that we can catch the Day Scholar Bus by 3:45pm even if we didn't win. But other teams had a strong will to win the competition. So I will rectify it in my upcoming technical hunts and competitions and I will participate to win, rather than just to experience and rather than worrying about simple things like these. This event made me to understand that I have missed onto a lot of things by not joining these types of events. So if you didn't join one till now, try to apply for one at this moment to take your first step.

Showcasing Talents, Ideas and Achievements



#### Guest Lecture on Sensors and Transducers-A Review

Recently, there was a guest lecture on Sensors and Transducers by one of the faculty members of St. Joseph's College of engineering at our college. The session was organized to provide students with a proper overview of sensors, transducers, and their uses in current technology.

The talk began by defining what the distinction between sensors and transducers is. The presenter clarified that sensors were employed to record physical amounts, while transducers transformed the amounts into electrical signals that are quantifiable and can be processed. This helped dispel some myths.

The class progressed to the sensors' types, e.g., temperature sensors, pressure sensors, and movement sensors, and how important they are in real-world systems. Touch sensors and proximity sensors were accorded special attention, with the working principle and typical uses—robotics, phones, and alarm systems—explained in depth.

Of the significant issues discussed, smart sensors and their application to power systems, specifically load monitoring, fault detection, and efficiency optimization, were discussed. The lecture also touched on the enormous diversity of applications for sensors in medicine, manufacturing, and consumer electronics, including their position at the heart of all aspects of our lives.

Personal Takeaway: I have already learned about the theory of sensors earlier, but through this lecture, I came to understand their widespread practical applications. Learning about the use of such devices in power systems and automation made me an eye-opener and encouraged me to explore hands-on projects involving sensors.

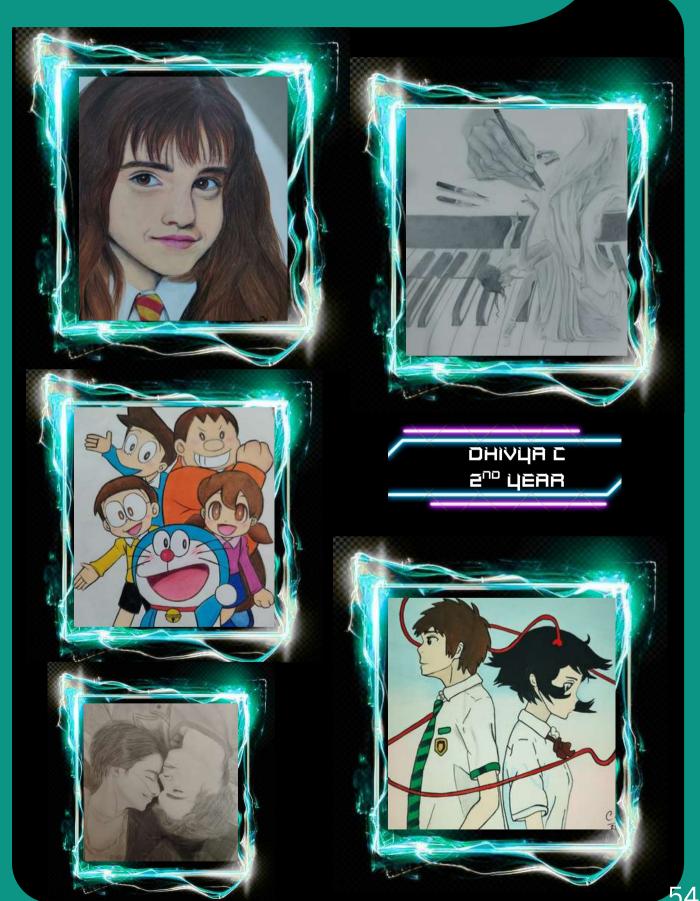
Showcasing Talents, Ideas and Achievements





Showcasing Talents, Ideas and Achievements





Showcasing Talents, Ideas and Achievements





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### **CATERPILLAR**





Rithvikha V, Bharathi K 4<sup>th</sup> year, Associate Engineer- Electrical Eligibility: 7.5 CGPA, No history of arrears

1. How did you prepare for the placement process (specific resources, routines, or hacks)?

**Rithvikha:** Since Caterpillar is a US-based company, they place greater emphasis on a strong grasp of fundamentals rather than the advanced skills listed in the job description, which often go beyond a typical undergraduate curriculum. This is because they plan to train you on the advanced concepts during the internship period. Having a solid understanding of core subjects like Electrical Machines and GTD will be helpful, and being able to clearly explain the projects you've worked on will also help you stand out.

**Bharathi:** I didn't have a specific routine but I studied my core subjects clearly such that relating it with the real time approach to it. I was more interested in the electrical domain and I was so keen on Power System and Machines and this helped me to get into the world of Caterpillar. So, the only hack is just study your subjects and it will lead you.

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### Where students becomes professionals

#### 2. How was the selection process for this role in this company?

**Rithvikha:** The shortlisting was based on an MCQ test with nine sections, consisting of three each from aptitude, core, and coding. The core section had questions from electronics and electrical topics, while the coding section covered basic system architecture and  $C/C_{++}$ .

**Bharathi:** Normally, for every core company, you will have a test followed by GD and an Interview(technical+HR). Test is all about the basics of EEE you have learned and Aptitudes. Then, the GD tests your involvement skills and the main thing while GD is "Do Not Exaggerate Yourself!", just try to be yourself and speak what you know and what is apt for the situation. Then comes the final part, Interview just tests your clarity in your subjects. Even if you don't know something, don't hesitate to accept it and at the same time be clear on your answers such that it involves the consciousness of both you and the interviewer. Just be clear on your words and what you are saying and this makes you stand out.

#### 3. Any common mistakes you saw people making during placements?

**Rithvikha:** I personally believe that one major differentiating factor was asking at least one relevant question during the pre-placement talk, something most people didn't do. The company likely takes note of that, and it definitely earns you some brownie points.

**Bharathi:** "Just be true in your resume!!!"- this is the only thing I want to convey. Even if you've done only a few projects, be more clear on it and do not lie on your resume.

#### 4. What's the single biggest tip you'd give to a junior starting prep now?

**Rithvikha:** Focus on strengthening your fundamentals and ensure you have a clear understanding of the projects you work on, regardless of the domain.

**Bharathi:** "Just Study your Subjects!! And try to do internship at the companies related to your field of study"



### Where students becomes professionals

#### 5.Did extracurriculars, internships, or projects help you stand out?

**Rithvikha:** Publishing papers in reputed journals and patents can significantly help you stand out in the core domain. Additionally, being an active member of professional societies like IEEE also gave me a strong edge.

**Bharathi:** Yes, my racing team-Apex Racing helped me to stand out and half of my interview was about my kart and my internships helped me get the industrial exposure.

6.If your placement process was a movie, what would the title be?

Rithvikha: Catch me if you can

Bharathi: Venthu Thaninthathu (Kaadu-Placements)





### **ASHOK LEYLAND**



A.M.Kayalvizhi, Yokesh K B, Mahathi.B 4<sup>th</sup> year, Graduate Engineer Trainee(GET)

Eligibility criteria: 8.5(Male without history of arrears) / 7(Female without history of arrears), No current and history of arrears, 10th-7 cgpa or 70%, 12th -7cgpa or 70%, Diploma -7cgpa or 70%

1. How did you prepare for the placement process (specific resources, routines, or hacks)?

**Mahathi:** The preparation was just brush up of basic electrical subjects like electrical machines, power electronics etc. and strengthening the concepts related to my projects.

**Yokesh:** Preparation for the core placements is pretty simple, you must have a basic understanding of the core concepts starting from Circuit theory, Electrical Machines, Power Systems and Power Electronics and the above mentioned core subjects is for the students who are aiming for a role in Electrical and if you are someone who is aiming for electronics role have some basic understanding in Digital Circuits, Analog Circuits which comprises of Electronic Devices and Microprocessor and Microcontrollers and Data Structures in C/C++ (very important) as there many electronics companies only come for embedded programming roles. I did prepare for core by just revisiting my

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### Where students becomes professionals

PPT's and try to do atleast 2 internship related to your domain before attending placements and I did three internships which helped me to understand core better. In the context of AL the internship which I did at IITM helped me as I worked on FOC control of PMSM motor which are currently used in EV and AL is currently working on heavy duty EV and it helped me to understand EV better and get this job.

**Kayalvizhi:** I first prepared aptitude from the start of the semester. Then I revised the basics of power systems, machines, control systems, and PSOC. I also practiced group discussions and HR sessions to improve my communication and confidence. This preparation has helped me get ready for the Ashok. Leyland placement drive.

#### 2. How was the selection process for this role in this company?

**Mahathi:** The selection process started with shortlist based on resume ,technical test, gamification round, group discussion and interview. The technical interview was much focused on testing the person's basic knowledge on the core subjects and the in depth understanding of concepts involved in their academic projects.

**Yokesh:** AL drive is a very long drive consisting of 5 rounds. The first round is the online test which was conducted in online at our clg labs and basically the test was time consuming as we had to solve 50 aptitude and 50 technical in a span of 60 mins and my advice is to solve atleast 25 aptitude minimum and try to solve atleast 75 questions minimum.

The second round is the gamification round which is a AI based game round where we had to play 9 games in total in 37 mins which basically tested our coordination and thinking ability (Rejection in this round is very minimum only 3 got rejected from our drive).

The third round is Group Discussion, GD in AL was very different from the conventional GD they projected a photo and asked us to discuss about the photo for 10 mins (Rejection happens in huge number here).

The fourth round is AI Video Interview which is basically a 1 min video interview which we had to upload where a question will be asked which is behavioral question or situation based questions like How will you motivate a member in your team who is lacking in work? (No rejection in this round)

The Final Round is the Technical and HR interview, Interview will be conducted for 40 mins max for a candidate. They Interviewed me for 40 mins they majorly tested me in the field of EV and Power Systems and the questions were simple, but required deep understanding.

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### Where students become young professionals

**Kayalvizhi:** First, we were shortlisted based on CGPA, followed by an aptitude and technical test. Then we had a pre-placement talk, where rewards were given to students who answered their questions. This was followed by a group discussion and an AI interview. In the final interview, I was asked about my project and my area of interest, which was power systems, even though it was not directly related to the company.

#### 3. Any common mistakes you saw people making during placements?

**Mahathi:** I think maybe adding up things you are not sure about in the resume will put in disadvantage.

**Yokesh:** Your resume needs to be single page ats format but all the contents in your resume needs to be known by you just pitch in the things only u know and most important in GD please follow the decorum pls take a paper and pen to GD the company wont provide but they will always expect you to bring.

**Kayalvizhi:** Most of the people added points in resume they weren't confident about, which became a problem in interviews. Always include only what you can explain well.

#### 4. What's the single biggest tip you'd give to a junior starting prep now?

**Mahathi:** Make sure your basics are strong, try to understand the subjects instead of just learning for exams, you'll know you are confident in a certain topic if you are able to explain it to a kid and make them understand. So, I suggest learning that way and developing the ability to make people understand it will definitely help you stand out.

**Yokesh:** Tip for the juniors is to understand basics of power system which is very important and try to have a separate note for placements and try to note down every important concepts in power system and electrical machines in a note this will be helpful when you prepare for placements and prepare for the company based on the role too.

**Kayalvizhi:** The biggest tip is to learn the basics of every subject, not just for marks. Being strong in fundamentals really helps in placements.



### Where students become young professionals

#### 5. Did extracurriculars, internships, or projects help you stand out?

**Mahathi:** Yes, it definitely did. I was asked about my hobbies and other interests. Speaking about your interest and extracurricular activities will set you apart and also may impress them by seeing your passion for things other than academics. Most of the technical questions were about my projects. It would be best to choose the projects on a field that suits you and work on it sincerely.

**Yokesh:** Projects and Internships are key for placements have atleast 2 internships and 2 projects in your resume before getting placed in Ashok Leyland I got an internship offer in caterpillar they only asked questions based on my project and they didn't even pitch any other questions.

**Kayalvizhi:** Doing projects and internships was really helpful for me during the placement drive. In the interview, they asked about my project and specifically wanted to know what my contribution was. So, my advice is to focus on basics, do projects and internships sincerely, and be ready to explain your own role with confidence.





### **GE VERNOVA**





Monish Kumar S, Vijayraj PN
4th year, Graduate Engineering Trainee
Eligibility: 7.5 CGPA with no history of arrears or active backlogs

1) How did you prepare for the placement process? (specific resources, routines, or hacks)?

Monish Kumar: I mostly kept revising important subjects like machines 1&2, GTD, and Power Electronics time to time. One of the main subjects that helped me crack the interview was GTD. GTD is a very important subject in terms of interview as well as tests as most companies that come to our college are kind of based on Power systems. Machines are equally important but I kept it as my second preference. Power electronics was of my third priority, but it helped me understand power conversion concepts involved in power system as they are both interrelated. Resources that I followed were some standard textbooks like Fundamentals of electrical machines by Chapman, Power Electronics by P.S. Bhimbra, and power systems any book should do the job.



### Where students become young professionals

**Vijayraj:** The process had three rounds. First was a technical written test with 20–25 questions, mostly covering basics and a few in-depth concepts from power systems. The second round was a group discussion, and my group's topic was "What if you are the CEO of GE?". The final round was a combined HR and technical interview, where I was asked questions based on my resume, internships, training, and projects, along with subject-specific questions from power systems and control systems.

#### 2) How was the selection process for this role in this company?

**Monish Kumar:** First, a mcq test was conducted with 78 ppl, followed by a GD that had 40-45 people split into panels of four of each having 10 people. Then came the interview process which had about 15 ppl competing. And the result was rolled out a few days later.

**Vijayraj:** The process had three rounds. First was a technical written test with 20–25 questions, mostly covering basics and a few in-depth concepts from power systems. The second round was a group discussion, and my group's topic was "What if you are the CEO of GE?". The final round was a combined HR and technical interview, where I was asked questions based on my resume, internships, training, and projects, along with subject-specific questions from power systems and control systems.

#### 3) Any common mistakes you saw people making during placements?

**Monish kumar**: One big mistake that I saw people make was in the GD. I felt the test to be very easy and many did feel that. So the main filteration started off from the GD round. Many people struggled with clarity in their points, adding points in relevance to the context of the flow of discussion, getting stuck or blank when confronted about a shortcoming in their point and so on. After the GD, I think I felt the resume of some didn't really allign with what the company was actually all about. Maybe that could be a reason for people not being able to get it to the final selection.

#### 4) What's the single biggest tip you'd give to a junior starting prep now?

**Monish Kumar:** Start it early, as in start it with building your foundations well enough. Personally I felt second year and third year to be one of the career shaping years of one's life as it is that time when people start knowing what works for them and what doesn't. And mainly, all the solid foundations required are mainly taught in these years, and so if



### Where students become young professionals

your foundation isn't strong, it might make things harder for you than it should have been. After building up the foundations well, just look more into its applications and use cases. Companies usually don't expect you to be a master in all domains or to know everything in a specific subject, but they would want to know if you have your basics and essential fundamentals right. And from there on they start asking more conceptual questions (not as hard as you think it to be) to get a brief idea about you in terms of core. Put what you only know in the resume and nothing more, nothing less. For interviews, I'd say confidence, communication and clarity will definitely give you an edge over others. Be sure about what you speak because that's where the follow up questions come from. Keep yourself updated with current technological advancements in your domains and the application of your core subjects in them. As a whole, you have to lead the interview. And this comes with experience. In my case, I got into the first electrical core company that came to our college in person for hiring, but others have done it with experience in interviews and so that's what I'm trying to convey here.

**Vijayraj:** Choose your domain and start working on it. You don't need to be an expert, but you must know the basics very strongly.

#### 5) Did extracurriculars, internships, or projects help you stand out?

**Monish Kumar**: I had a patent applied for registration (not yet approved) in the renewable energy resource domain, and they did ask what was my thought process behind formulating that idea. They did ask about my NIOT internship under the Ocean Electronics Department as it interested them a bit. More than these, I was mainly asked several back to back core technical questions from both power system and machines (as I had mentioned these were my subjects of expertise when they asked). So be careful about what you mention as your favorite subjects.

**Vijayraj:** I didn't mention extracurriculars, but my internships and projects helped me a lot. They gave me practical exposure and became the main discussion points during my interview. The process was the same as for all other core companies. First, we had a technical written test with around 20–25 questions. Most of them were based on basic fundamentals, and 1–2 were from in-depth power systems. The second round was a group discussion. We were split into 4 panels of 10 members each, so around 40 students in total. My group had the topic "What if you are the CEO of GE?".



### Where students become young professionals

Finally, there was the HR + Technical interview. I was asked questions solely based on my resume. They asked me to draw and explain a circuit, gave me 2–3 inputs, and I explained them. Then, I was questioned in detail about my internships at ICF and NSIC, as well as my in-plant training at Daikin and my projects. This showed me how important it is to be thorough with everything we mention in our resume. Since GE is a power systems company, I was also asked questions from power systems and control systems. One important takeaway from this experience is that we should be strong in our domain knowledge, as it plays a major role in both the written test and the interview.

Overall, the process was smooth, and this was my journey of getting placed in GE. I would also like to thank my college for providing me with this valuable opportunity.

6) If your placement process was a movie, what would the title be? (Optional for fun tone)

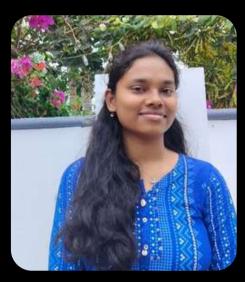
Monish Kumar: Ahh vazhthukal vazhthukal

# **INTERNSHIPS**

Bridging classrooms to careers



### FIDELITY INVESTMENTS





Anandha Laxmi Senthilkumar, Chindhana K 3rd year, Summer intern Eligibility: Circuit Branches (CSE, IT, ECE & EEE): CGPA 8.0 and above

1. How did you prepare for the placement process (specific resources, routines, or hacks)?

**Anandha Laxmi :** To be honest, I didn't spend all my time solving coding problems. I focused on the basics—DSA, OOPs and DBMS—from online resources. Most of my prep time went into understanding my projects deeply, because I knew they would be my strongest point. I made sure I could explain them clearly, connect them to real-world applications, and also show how I combined EEE concepts with CS technologies like AI/ML and blockchain. For coding, I practiced a decent number of standard problems just to be comfortable with patterns, but I relied more on clarity of concepts than on brute practice.

**Chindhana:** I mostly prepared by practicing aptitude and reasoning questions on platforms like IndiaBix. For coding and DSA, I solved problems on LeetCode and GeeksforGeeks. I also used YouTube for quick revision of DBMS concepts. Since I'm doing the IIT Madras Data Science program, I already had some hands-on coding exposure, so I just revised and focused on being able to explain my projects clearly.

### **INTERNSHIPS**





#### 2. How was the selection process for this role in this company?

Anandha Laxmi: The process had multiple stages—online assessment (Aptitude + Coding + Technical MCQs), followed by a technical interview, and finally an HR interview. In the technical round, they focused on both problem-solving and my projects. I got to explain my blockchain-based energy trading project and the ADAS self-driving car project, which sparked good discussions.

**Chindhana:** The process was quite structured. It started with an online assessment that had aptitude, logical reasoning, DSA, DBMS MCQs, and two coding questions. Based on that, around 100+ students were shortlisted. The first interview round was mostly technical, where I had to convince the panel about why I, as an EEE student, was interested in an IT role. I also explained my projects and was tested on the skills mentioned in my resume. After that, I was shortlisted for the HR round, where they asked about my background, why I wanted to join Fidelity, and some situational questions to test how I'd react in workplace scenarios. Finally, about 30 students received the internship offer.

#### 3. Any common mistakes you saw people making during placements?

#### Anandha Laxmi: Yes, a few:

- Not being able to explain their projects clearly or justify their role in them.
- I Focusing only on coding but ignoring core CS fundamentals.
- I Getting nervous and jumping to answers without thinking aloud (Interviewers would often like to see the thought process too).

**Chindhana:** One mistake I saw was people adding fancy terms or tools in their resume just to make it look heavy, but then struggling when interviewers asked about it. I feel it's always better to mention only what you really know and can explain well — especially projects, because that's where interviewers go into detail. Some people weren't fully ready to explain their projects. They had done good work, but during interviews, they couldn't clearly break down the approach or connect it to practical applications. I think being able to explain your own project simply and confidently is really important.

### INTERNSHIPS





#### 4. What's the single biggest tip you'd give to a junior starting prep now?

**Anandha Laxmi:** Don't just practice problems—learn to understand each concept clearly along with their practical uses and explain your thought process clearly. That's what makes you stand out in interviews. Also, start early with projects or internships, because they give you stories to tell that show your initiative and interest.

**Chindhana:** If I had to give one tip to a junior, I'd say don't stress too much about the branch. What really matters is how well you can code and explain things. Just practice a little every day on sites like LeetCode, work on one solid project you actually understand, and most importantly don't fill your resume with buzzwords you can't explain — because the interviewer will happily turn that into a viva session. Stay confident and treat the process like a conversation, not an exam.

#### 5. Did extracurriculars, internships, or projects help you stand out?

**Anandha Laxmi:** Definitely. My projects were the highlight—especially how I combined my EEE background with CS domains like AI/ML and blockchain. That showed adaptability and curiosity. It gave me an edge because I could discuss not just theory but also how I applied concepts in real-world scenarios.

**Chindhana:** Yes, definitely. My projects played a big role because they gave me something concrete to talk about beyond just theory. For example, I could show how I applied my coding and data science knowledge to solve real problems. That helped convince them that even though I'm from EEE, I'm serious about IT. My extracurriculars also added value — being part of clubs and teams showed that I can work well with people, manage responsibilities, and communicate clearly. Altogether, it helped me come across as more well-rounded rather than just focusing only on academics

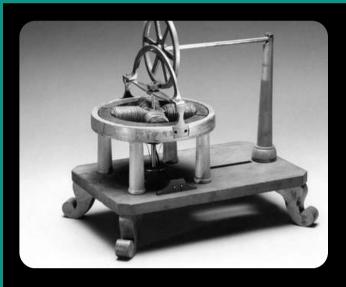
#### 5. If your placement process was a movie, what would the title be?

**Anandha Laxmi:** "Bridging Two Worlds"

**Chindhana:** Mission Possible: Fidelity Edition

# THIS DAY, THAT YEAR

Highlighting the History!



**July 6, 1802** – First fully electric motor invented by Thomas Davenport, a foundational moment in electrical engineering history

July 25, 1946 – The Moore School of Electrical Engineering at the University of Pennsylvania completed the ENIAC, the world's first successful all-electronic, general-purpose digital computer—a major leap in computing and EEE.





**July 3, 1969** – UCLA announced it would become the first node in a nationwide computer network, laying groundwork for what would become the Internet—impacting EEE and communications

# THIS DAY, THAT YEAR

Highlighting the History!



Birthplace of the Internet, 1969

At 10:30 p.m., 29 October 1969, the first ARPANET message was sent from this UCLA site to the Stanford Research Institute. Based on packet switching and dynamic resource allocation, the sharing of information digitally from this first node of ARPANET launched the Internet revolution.

October 2009



**July 3, 1969** – UCLA announced it would become the first node in a nationwide computer network, laying groundwork for what would become the Internet—impacting EEE and communications

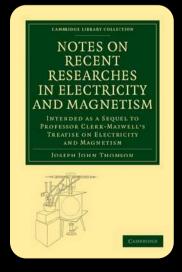
**July 1, 1873** – Maxwell's Equations Published - James Clerk Maxwell's set of equations describing electricity and magnetism were published in "Treatise on Electricity and Magnetism."

$$\nabla \cdot \mathbf{D} = \rho$$

$$\nabla \cdot \mathbf{B} = 0$$

$$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t}$$

$$\nabla \times \mathbf{H} = \mathbf{J} + \frac{\partial \mathbf{D}}{\partial t}$$



**July 27, 1849** — Birth of John Hopkinson, pioneering electrical engineer who invented the three-phase electrical distribution system and formulated Hopkinson's law in magnetism.

# THIS DAY, THAT YEAR

Highlighting the History!



August 7, 1955 – Sony (then Tokyo Telecommunications Engineering) released the TR-55, Japan's first transistor radio. This portable device revolutionized consumer electronics and promoted transistor adoption globally

**August 21, 1890** – Birth of Dr. Leonard F. Fuller, a U.S. electrical engineer and radio pioneer who played a key role in designing high-power transoceanic radio telegraph stations—a far-reaching impact on early wireless communication.





**August 30 [year unspecified]** – John Mauchly was born; he co-designed the ENIAC, marking a pivotal figure in computing and electronics history.

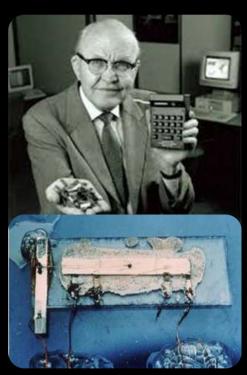
# THIS DAY, THAT YEAR

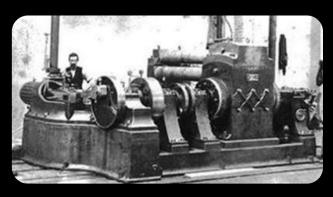
Highlighting the History!



**August 25, 1891** — At the Frankfurt Electrotechnical Exhibition, engineer Michael Dolivo-Dobrowolski conducted the first long-distance high-voltage electrical transmission (176 km at 25,000 V) — a breakthrough for power distribution systems.

**September 12, 1958** – Jack Kilby, an electrical engineer at Texas Instruments, demonstrated the first integrated circuit (IC)—ushering in modern electronics.





**September 15 (annual observance)** – World Engineers Day, celebrated globally to honor the societal impact of engineers, including those in the EEE field

Bringing back the college Memories!





Our proud alumnus, **Mr. Ajay Rangan** (Batch: 2012–2016), visited the Department of Electrical and Electronics Engineering on 12th July 2025.



Alumni from the 2018–2022 batch, **Madhusudan S** and **Koupendra D B**, visited our department on 16th July 2025.

Bringing back the college Memories!



Subhesh, a 2015 UG graduate, visited the campus for recruitment activities.



**Dr. V. Rajini** attended a meeting at Renault Nissan on 15<sup>th</sup> July 2025.

Bringing back the college Memories!

## A Message from Karuppuswamy (SSN Class of 2005)

I am Karuppuswamy, a proud member of the 2005 graduating batch of SSN. I had the honour of studying at SSN on the Merit-cum-Means Scholarship. I remain deeply grateful to the institute—and especially to Dr. Kala Vijayakumar—for providing the financial support that made it possible for me to complete my graduation.

Today, I serve as a Technical Manager at Ametek India Pvt. Ltd. But the foundation of this journey was laid during my years at SSN.



Giving Back to the Institute that Gave Me So Much.

Even as a student, I dreamed of one day giving back to SSN. In 2002, I took up bodybuilding as a personal challenge. Within a year, I secured a bronze medal at the Anna University Zonal level, and two years later, I was honored to win a gold medal at the State level, bringing recognition to SSN.

These achievements were possible only because of the unwavering support from the management, especially Dr. S. Salivahanan, and my friends. The discipline and perseverance I gained through bodybuilding shaped my preparation for GATE and continue to guide me in my professional life.

## Academic Journey - From SSN to IISc:

I am proud to be the first SSN alumnus to gain admission to the M.Sc. (Engg) program at the Indian Institute of Science (IISc). I owe special thanks to the late Prof. Vaidiyalingam, who supported me even after graduation by helping me with control systems concepts.

# Bringing back the college Memories!

At IISc, I had the privilege of working under Prof. V. Ramanarayanan on the development of power converters. This experience not only strengthened my technical foundation but also sharpened my interpersonal and collaborative skills. Over the years, I've contributed to the design and development of chargers, DC–DC converters, inverters, and programmable power supplies for sectors such as Telecom, Indian Railways, Electric Vehicles, industrial systems, and nuclear power plants.

#### A Commitment to Uplift Others

Since beginning my career in 2009, I've been fortunate to achieve financial stability. This inspired me to act on my long-standing desire to support education. I launched a lifetime scholarship for underprivileged school students and have been consistently contributing to the SSN alumni scholarship for the past three years.

I remain indebted to my parents, my wife, and my children for their unshakeable support throughout this journey.

#### Why I'm Proud to Be an Electrical Engineer

Electrical engineering isn't just theory—it's a part of daily life. It teaches us to solve real-world problems with clarity and logic.

Here are some practical examples of how engineering knowledge helps in everyday life:

- 1. Home Appliances: Diagnosing a noisy fan or tripped mixer becomes second nature.
- 2. Energy Efficiency: We know how to reduce power consumption and select efficient devices.
- 3. Mobile Gadgets: We understand battery care and charging safety.
- 4. Transport: We appreciate how EVs and trains operate—motors, drives, control systems.
- 5. Safety: We know the critical role of earthing, proper wiring, and circuit protection.

Engineers should always speak in numbers, not generalities. It adds clarity and professionalism:

- Say, "The voltage is 180V instead of 230V," instead of just "voltage is low."
- Or "The circuit draws 15A, though rated for 10A," instead of "current is too high."

# Bringing back the college Memories!

#### Theory + Practice = Real Skill

Classroom learning builds knowledge. But lab work builds confidence.

For example, assembling an RC circuit teaches you more about time constants than any textbook can. When we repaired a damaged Digital Storage Oscilloscope at work—quoted at ₹10 lakhs—we diagnosed and fixed it ourselves for just ₹200. That experience reinforced the value of hands-on skills, teamwork, and confidence.

#### Supporting Students from All Backgrounds

Many students from rural areas face culture shock and self-doubt when they move to cities. It is our duty—as seniors, mentors, and peers—to support and guide them.

Character, compassion, and knowledge matter far more than appearance or background. If you ever feel lost or low, reach out—to your friends, professors, or family. I've received guidance from Prof. Ramaprabha, Prof. Rajini, and Associate Prof Leo and I assure you; our professors are always here to support you

### **Closing Thoughts**

Success is not about luck or shortcuts. It's about consistent effort, discipline, and integrity.

Apply your knowledge. Practice regularly. Help others. Keep learning. These are the values that define not just a good engineer—but a meaningful life.





# invente '25

Rewinding Time. Replaying Revolution.

26th & 27th SEPTEMBER

# CHRONICLES

Department of Electrical and Electronics Engineering





# **INVENTE' 25 REPORT**

Reported by: Bhuvanesh N P, Documentation Team

The INVENTE 2025 started with the AEEE Inaugural Speech as the events unfolded which showcased various technical and non-technical events. The inaugural event was accompanied by HOD Dr. V. Rajini Mam along with our chief guest Mano Venkatesh Rajaselvan - Co founder of Institute of Venture Building (IVB).



## **TECHNICAL EVENTS:**

#### Electrothon:

- Electrothon aimed to foster innovation, creativity, and problem-solving skills among students by encouraging them to propose and develop solutions to real-world problems using concepts from Electrical, Electronics, and Emerging Technologies. Students were able to pitch their ideas and build and demonstrate their ideas to the judges.
- Domains AI/ML, IoT, Robotics, Digital Electronics, VLSI, Embedded Systems, Electric Vehicles, Power Electronics, and Renewable Energy.









#### Circuit Clash:

- Circuit Clash was a technical event that challenged participants to apply their electrical and circuit knowledge in creative and interactive ways. Through three unique rounds guessing circuit components, combining quizzes with fun physical tasks, and blind circuit assembly.
- It is a fun-filled, competitive, and interactive event that seamlessly blended technical concepts with creativity and teamwork.





#### Ideate:

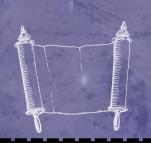
- Ideate was a technical paper presentation event aimed at encouraging innovation and research among students. Participants, in teams of one to three members, submitted research papers on emerging topics in Electrical and Electronics Engineering.
- The shortlisted teams presented their work in hybrid mode, followed by a Q&A session with the judges. The event provided a platform for students to share ideas, enhance their presentation skills, and contribute to future technological advancements.















#### Powerhouse:

- Power House is a technical, interactive event designed to simulate the flow of electric current through a circuit. Participants navigate a circuit path while overcoming obstacles such as resistors, diodes, inductors, capacitors, switches, open circuits, and batteries, completing technical challenges to proceed.
- The event aimed to test students' understanding of basic electrical components, circuit behaviour, and problem-solving skills in a practical, hands-on environment.



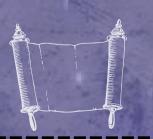
## Flip the Bit:

- The event was aimed at providing participants with a hands-on learning experience in Verilog HDL coding and FPGA kit implementation, bridging the gap between theoretical knowledge and practical exposure.
- The event succeeded in offering participants an enriching experience, sparking their curiosity to explore VLSI and digital system design in greater depth.







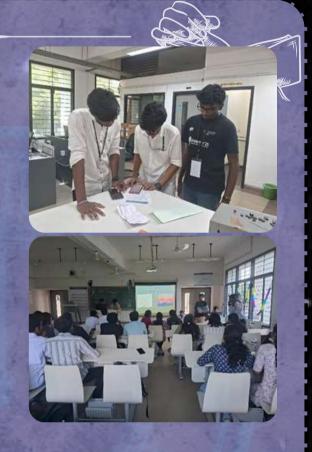






#### End Game:

- Endgame was an interactive event combining quizzes, riddles, and clue hunts based on Electrical and Electronics Engineering concepts. Participants showcased their creativity and technical knowledge through engaging rounds inspired by movies, music, and core subjects.
- The final challenge tested their speed and problem-solving skills in decoding clues to find the ultimate code word. The event offered a fun, competitive, and intellectually stimulating experience for all participants



## F1 Pit Escape:

• A technical, F1-themed escape room organized by IEEE-PES, testing problem-solving skills in digital logic, resistors, and number conversion across 4 stations. 32 participants from various colleges competed in an engaging and fast-paced challenge.









#### Synapse:

A two-day technical event by IEEE PELS Student Chapter, SSN. Sessions covered firmware processes, wireless IoT solutions, efficient system design, and high-speed PCB practices. Industry experts shared practical insights on product development workflows and compliance standards. Students actively engaged, gaining holistic exposure to software, system, and hardware aspects of embedded systems



# **NON TECHNICAL EVENTS:**

#### Tentukotta:

- Tentukotta is a non-technical, movie-themed fun event designed to bring out participants' enthusiasm, quick thinking, and passion for cinema.
- The event encouraged teamwork, spontaneity, and a sense of friendly competition through three engaging and interactive rounds centred on popular movie content.











#### IPL Auction:

- IPL Auction was a fun and competitive event that combined cricket knowledge with strategic thinking. Participants first took part in a cricket-themed quiz to qualify for the final round.
- The finalists then engaged in a thrilling IPL-style auction, building their dream teams within a set budget. The event brought out participants' teamwork, planning, and passion for cricket in an exciting and energetic atmosphere.















# VALEDICTORY CEREMONY

- The Valedictory Ceremony of Invente' 25 was graced by our cosponsor and proud alumnus of the Department of EEE (Batch 2005–2009), Mr. Pradeep Kumaar Rajarathinam, CEO & Co-founder of Stan Ventures.
- An interactive question and answer session happened where our alumni answered the questions raised by the students, and at last, Invente' 25 ended with a huge success.





# VISION & MISSION

Our journey's final destination



#### **Institute Vision:**

• To be a world class institution for technical education and scientific research for public good.

#### Institute Mission:

- Make a positive difference to society through education.
- Empower students from across socio-economic strata.
- Be a centre of excellence in education in emerging technologies in accordance with industry and industrial trends.
- Build world class research capabilities on par with the finest in the world and broaden students' horizons beyond classroom education.
- Nurture talent & entrepreneurship and enable all-round personality development in students.

## Department Vision:

- To inculcate the right mix of knowledge, attitudes, and character in students to enable them take up positions of responsibility in the society and make significant contributions.
- To produce talented Electrical and Electronics Engineers through quality education, to be a center of excellence and become a source of cutting edge technologies in the field of Electrical and Electronics Engineering.
- To become a preferred partner in the area of collaborative research among national and international organizations.

## **Department Mission:**

- To achieve global eminence in the field of Electrical and Electronics Engineering.
- To be a highly preferred destination comparable with the best in the world for students aspiring to enter the field of Electrical and Electronics Engineering.
- To nurture the talent and to facilitate the students with all round personality development to make a positive difference to society through education.