



Electrical and Electronics Engineering 2025 issue 2



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About the DEPARTMENT



The Department of Electrical and Electronics Engineering at SRM was established in the academic year 1992-1993 as a core branch under SRM Engineering College, affiliated with the University of Madras. It transitioned to Anna University in 2001-2002 and later to SRM Institute of Science and Technology (Deemed University) in 2003-2004.

The department offers B.Tech. (Electrical and Electronics Engineering), B.Tech. (Electric Vehicle Technology), M.Tech. (Power Electronics and Drives), M.Tech. (Power Systems), and PhD programs. The B.Tech. EEE program at Kattankulathur Campus is accredited by ABET and NBA. With 57 faculty members, the department received the AICTE-CII Award for Best Industry Linked Institute (2019-2020) and is ranked 12th in India, 3rd among private institutions, and 301-350 in QS World University Rankings 2025.

Vision



To impart quality education in the field of Electrical & Electronics Engineering and to produce globally competent engineers to serve the society.

Mission



- To educate the student to become better practicing engineers to meet global excellence.
- To provide better environment through latest developments in electrical engineering involving problem solving, design, practice and training.
- To motivate the graduates to become a good leader, designer and researcher through industry-oriented trainings with social and ethical responsibilities.

Chairperson's Desk



Dr.K.VIJAYAKUMAR
Chairperson, SoEEE

Dear Students, Faculty, and Esteemed

As technology continues to advance at an unprecedented pace, our responsibilities as educators, researchers, and learners grow increasingly vital. At the School of Electrical and Electronics Engineering, we remain steadfast in our commitment to nurturing innovation, promoting experiential learning, and driving research that makes a difference. This magazine serves as a reflection of our collective efforts and proudly showcases the talent, ingenuity, and dedication of our vibrant academic community.

Dear Readers,

As we venture into the vibrant days of July, I hope this edition of The Pulse finds you in great spirits. I'm delighted to share the latest achievements and activities of the EEE Department from April to June 2025. These accomplishments highlight our continued commitment to excellence in education, research, and industry collaboration.

We are also pleased to welcome our new semester students. You are now part of a dynamic department that values innovation and holistic education. I encourage you to actively engage in your learning journey, explore available opportunities, and participate in departmental initiatives.

These milestones reflect our dedication to student success and our drive for continuous improvement. We look forward to reaching greater heights together.

HoD'S Desk



Dr.R.SRIDHAR
Professor and Head
Department of EEE

Editor's Desk

Dear Readers,

We are delighted to present the second edition of The Pulse for the year 2025, capturing the vibrant happenings within the Department of Electrical and Electronics Engineering during the months of April to June.

This quarter has witnessed a blend of academic rigor, industry collaboration, and student-driven innovation. Faculty members have led initiatives in emerging domains such as AI-powered control systems and sustainable energy, while students have actively participated in workshops, competitions, and impactful projects.

As you explore this edition, we hope you'll be inspired by the stories, milestones, and moments that define our progress. We remain grateful for your continued support and look forward to your feedback and engagement.

Warm regards,
Editorial Team



Dr. PRADEEP V
Assistant Professor
Faculty Mentor



Dr. SURESHKUMAR A
Assistant Professor
Faculty Mentor



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Content Writer



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I Year, EEE
Digital Content Manager

Team Member's

GLOBAL TIES

International Conference on AI for the Oceans 2025

The International Conference on **AI for the Oceans 2025** was successfully hosted at SRM Institute of Science and Technology, Kattankulathur, in collaboration with the Marine Technology Society (MTS) India Section. The three-day event brought together over 250 delegates, including scientists, academicians, policymakers, and industry leaders, to explore the transformative role of Artificial Intelligence in solving marine and environmental challenges.

Inaugurating the conference, **Dr. Balaji Ramakrishnan, Director, NIOT**, remarked, “*Artificial Intelligence is not a challenge—it is a catalyst for change*,” setting a forward-looking tone. The event featured 12 thematic tracks focusing on key areas such as autonomous systems, marine biodiversity, deep-sea exploration, and AI-enabled climate solutions.



The conference included the release of the official proceedings and a special IEEE CSI issue, highlighting cutting-edge research and international collaborations. Eminent speakers like **Dr. M. Ravichandran**, Secretary, Ministry of Earth Sciences, and **Dr. V. Kamakoti**, Director, IIT Madras, addressed the audience, stressing the importance of interdisciplinary partnerships.

Delivering the presidential address, **Dr. C. Muthamizhchelvan**, Vice Chancellor, SRMIST, emphasized the university's integrated education model combining AI, research, and innovation to address real-world challenges in water, energy, environment, and healthcare.

The event concluded with the MTS India Section's Lifetime Achievement Award ceremony, celebrating contributions to marine technology. ICAIO 2025 reinforced SRMIST's growing global footprint in AI-driven sustainable innovation for the oceans.

Empowering Education Through Global Collaboration

Dr. Nikita Hari, Head of Teaching and Research at the Design Support Group, University of Oxford, visited SRMIST, Kattankulathur campus on April 8 and 9, 2025, marking a significant step toward international academic collaboration. During her visit, Dr. Hari engaged in fruitful discussions with the Dean (CET), Head of the Department, the Vice Chancellor, and the Registrar, focusing on innovative pedagogies and the enhancement of SRMIST's Clean and Green Energy Open Elective.



One of the key highlights of the visit was a highly interactive hands-on session on wind farm engineering using LEGO kits, where students enthusiastically participated in building and testing turbine models.



In addition to delivering insightful sessions on research strategies and UKRI proposal development, Dr. Hari also emphasized the importance of experiential learning, interdisciplinary teaching models, and international exchange opportunities. The visit concluded with a reaffirmed commitment to collaborative efforts in clean energy education and pedagogical innovation. The SRMIST community looks forward to building on this momentum through impactful joint initiatives.

EEE Farewell 2025: A Heartfelt Send-Off



The Department of Electrical and Electronics Engineering at SRM Institute of Science and Technology, Kattankulathur, bid an emotional and vibrant farewell to the graduating batch of 2025 on April 15, 2025, at Faraday Hall. Organized by the EEE Association (EEEEA), the event brought together around 120 attendees, including students, faculty, and staff. The celebration was inaugurated with an inspiring address by Dr. R. Sridhar, Head of the EEE Department, who commended the students for their dedication and encouraged them to carry forward the legacy of excellence.



The event featured a dynamic lineup of dance performances, interactive games, open mic singing, and heartfelt student reflections, creating an atmosphere of joy, nostalgia, and camaraderie.

The Farewell Day served not just as a send-off but as a celebration of the bonds, growth, and shared journey of the graduating class. The EEEA and faculty were lauded for organizing a well-rounded and memorable event, leaving students with lasting memories as they step into a new chapter of their lives.





Student's

CORNER

PLACEMENT RECORDS

B.Tech 2025 Batch



TUSHAR KUMAR
Titan Engineering Automation Ltd



ATUL NAIR U
ClearTax



MEHUL AGARWAL
FVC Japan



SRINIVASAN S
Cognizant



VISHWAS NIGAM
Magna International



SABARISH M
GE Vernova



AKARSH PRASAD
L&T Technology Services



DHANISKA GAIKWAD S
Schneider Electric



SANGEETHA E
Hitachi Energy



DHIKSHANYA S
Hitachi Energy



RAM SINGH
Titan Engineering Automation Ltd



THAANESHVARAN P D
Lam Research



INDRANEELA DAS
Alstom



RUPAM ADHIKARY
UNOMINDA



SWASTIK PANDA
Euler Motors



GOWTHAM PRAKASH S
Exide Industries Limited



MOHAMMAD ADNAN
Titan Engineering
Automation Ltd



SHRISHA KABDWAL
ISUZU MOTORS



AJAY AKSANTH J
Renault Nissan



SYED FIROZ AHAMED
Gulf Asia



MOHANASUNTHARAM K
STELLANTIS



VINOTHA VARSHA
GAJENDRAN
Beckman Coulter Diagnostics



POLAKI KODANDA RAMA SAI
Euler Motors



MOHIT VERMA
Standard chartered



M J MOHAMED NAWFAL
Gulf Asia



TRINANJAN DAS
Titan Engineering Automation Ltd



NANDINI PANDHARE
Acmegrade Pvt Ltd



SOWMIYA LAKSHMI P
Siemens Limited



RAJESHWARI P
GE Vernova



A ADITHYA VARDAN
Movidu Technologies



JATIN PRASAD
Federal Bank



CHANDAN THAKUR
Hitachi Energy



RAGUL R
Polycab India Limited



ISHWARIYA R
Alstom



DINESH KUMAR S
STELLANTIS



ANWESH DHAR
Saent India Engineering
Consultants Pvt. Ltd.



GAWALI ABHISHEK BHAUSAHEB
PowerSun The Solar PV Governors



**HARSHWARDHAN SINGH
RATHORE**
Bitespeed



SAAD ABDUL HAI
Kissflow



AKSHAT JAIN
Titan Engineering Automation Ltd



SHRADDHA MANE
Pharma Valid

M.Tech Power Electronics and Drives



ROSHAN SAJÚ
RINEX TECHNOLOGIES
PRIVATE LIMITED



VIGNESH BARATHWAAJ R
Euler Motors



SNEHASHISH PANDA
RINEX TECHNOLOGIES
PRIVATE LIMITED

M.Tech Power System Engineering



SAYON RAY
Larsen and Toubro
Constructions

AWARDS AND ACHIEVEMENTS

- **V.Varun** and **Nithyashree A. Pillai**, third-year students, were among the top 30 achievers in the **Byte Battles 2.0 Hackathon** held from **5th to 6th April 2025** at **IBC Knowledge Park, Aether, Bangalore**.
- **V.Varun** and **Nithyashree A. Pillai**, third-year students received the First Paper Award at the International Conference on **AI for the Oceans**, held from **16th to 18th April 2025** at **SRM Institute of Science and Technology**.
- **Tharunkanth M.S**, **Kavya N**, and **Vaitheeswari R**, third-year students, won the Second Prize in the **Project and Poster Expo'25** held from **24th to 25th April 2025** at **SRM Institute of Science and Technology**.
- **Aditya Jambhale**, **Akshat Tambi**, **Prerna Sharma**, and **Yashowardhan Singh**, fourth-year students, received the Third Prize for their **Multidisciplinary Project (AY 2024–25)** conducted from **January to May 2025** at **SRM Institute of Science and Technology**.
- **J. Nithish**, a third-year student, presented a paper at a conference held on **4th June 2025** at the **Indian Council of Social Science Research** and received the **Best Paper Award**.

PARTICIPATION

- **B.Dhana Prakash**, a third-year student, participated in the **Gen AI & Conversational AI program** held from 12th to 13th April 2025 at **Anna University, MIT Campus, Chromepet, Chennai**.
- **Aarthi M**, **Sundarrasu S**, and **Pavithra L**, third-year students, participated in **Poster Expo'25** held from 24th to 25th April 2025 at **SRMIST**.
- **Atish Dinda** and **Souvik Maity**, third-year students, completed the **VLSI SoC Design using Verilog HDL** course on 24th April 2025 at **Maven Silicon Centre of Excellence in Semiconductors**.
- **Vijayraj D**, **Tharunkanth M S**, **Sanjay A**, **Vignesh S**, **Samprince**, **Balaji**, **Kavya N**, **Shakthi K**, **Rohini S**, **Siddharth M**, **Rohan S**, **Vinay**, **Sachin**, **Desigan**, **Shreeraj**, **Kavinkishore**, **Balasubramaniam**, **Nithish**, a third-year students, participated in a **MATLAB workshop** held on 5th April 2025 at **Madras Institute of Technology, Chromepet, Chennai**.
- **Karthik Pemmani**, **Abde Ali**, **Harshil Gupta**, **Ansh Srivastava**, and **Vishal Gnanavel**, second-year students, underwent in-plant training at **BHAVINI PFBR** on 2nd June 2025 at **BHAVINI, Department of Atomic Energy**.

- **Shaan Bhattacharya**, a first-year student, completed an **internship** at the **Ministry of Railways** from 9th June to 28th June 2025.
- **Hariharan J.**, a first-year student, completed an **internship** at **Steel Authority of India, Salem**, from 2nd June to 14th June 2025.
- **Atish Dinda, Souvik Maity, Balasubramaniam M., J. Nithish, and Rohan S.**, third-year students, completed an **internship** at **Chennai Petroleum Corporation Ltd., Manali Refinery**, Manali, Chennai, Tamil Nadu, from 28th May to 16th June 2025.
- **Vishwajeet Bilonia**, a third-year student, completed an **internship** at the **Bureau of Indian Standards, Raipur Branch Office**.
- **Siddharath M, Tharunkanth M.S, Sanjay A, Kavya N, Sakthivel K, Pavithra L. Rohini S, Balaji V, and Sundarrasu S**, underwent an **internship** at **Bharat Heavy Electricals Limited**, Ranipet, from 16th June 2025 to 15th July 2025.
- **Jithu Tomy**, a third-year student, completed an **internship** at **Kochi Metro Rail** from 2nd June to 29th June 2025 at the Kochi Metro Yard, Muttom, Ernakulam, Kerala.
- **Rishe S.M.**, a second-year student, underwent **implant training** at **Tata Power**, Jojobera, from 23rd June to 15th July 2025.
- **Khadeeja Marjan K.**, a second-year student, completed **industrial training** at **KSEB Ltd** from 10th June to 16th June 2025.
- **Rony Varghese**, a second-year student, completed an **internship** at **Kerala Electrical and Allied Engineering Co. Ltd.**, Kochi.
- **Jinessh J. P.**, a second-year student, completed an **internship** at **Bharat Heavy Electricals Limited** from 28th June to 10th July 2025
- **Kavyanshu Choudhary**, a second-year student, completed an **internship** at **Pratap Technocrats Private Limited** from 2nd June to 6th July 2025.
- **Madhav B. V.**, a second-year student, completed an **internship** on **Power Supply and Traction at Kochi Metro Rail Limited** on 2nd June 2025.
- **Chitesh Thangasamy N.A.**, a second-year student, completed an **internship** on battery pack manufacturing at **Tata AutoComp Gotion**, Pune, from 9th June to 4th July 2025
- **Aparajita Pal and Samarpan Kharel**, second-year students, completed an **internship** at the **National Institute of Ocean Technology** from 1st June to 1st July 2025
- **Elgin Calister F.**, a second-year student, completed an **internship** at **Power Grid Corporation of India Limited** from 2nd June to 21st June 2025
- **Kaushal Chakraborty** completed an **internship** on **Electrical Panel Design** on 2nd June 2025 at Power Control Equipments
- **Arputha Jeffry L.**, a second-year student, completed an **internship** at **NLC Tamil Nadu Power Limited**
- **Aditya**, a second-year student, completed an **internship** at **Tata Steel Ltd.** from 2nd May to 30th May 2025
- **Jayden Varghese Alex**, a second-year student, completed an **internship** at **General Industrial Controls Pvt. Ltd.** Pune from 2nd June 2025 to 19th June 2025
- **Subhadeep Baul**, a second-year student, completed an **internship** at the **Rail Wheel Factory, Bangalore** from 9th June 2025 to 8th July 2025



Faculty's

CORNER

AWARDS AND ACHIEVEMENTS

- **Dr.D.Suchitra** has secured **Top 5% in the NPTEL Online Certification course** named “Designing Learner-Centric MOOCs” during April 2025.
- **Dr.D.Anitha** has secured **Top 2% in the NPTEL Online Certification course** named “Designing Learner-Centric MOOCs” during April 2025.
- **Dr.J.Divya Navamani** has successfully completed International certified course “**Cambridge International Certificate in Teaching and Learning Module**” by CAMBRIDGE International Education during April 2025.
- **Dr.J.Divya Navamani** has received the **Certificate of appreciation** for Securing a granted patent from SRM IST during April 2025.
- **Dr.D.Suchitra** has secured **Top 1% in the NPTEL Online Certification course** named “Ethics in Engineering Practice” during May 2025.
- **Dr.N.Kalaiarasi** has secured **Top 5% in the NPTEL Online Certification course** named “Ethics in Engineering Practice” during May 2025.
- **Dr.S.Usha** has received the **Certificate of appreciation for Securing a granted patent** from SRM IST during April 2025.
- **Dr.S.Usha** has secured **Top 1% in the NPTEL Online Certification course** named “Education for Sustainable Development” during May 2025.
- **Dr.S.Usha** has received **Best Paper Presentation** for the paper entitled “Voltage and Current Ripple Analysis in a 15-Level MMC-Connected Induction Motor Drive” in the 3rd International conference organized by Siksha ‘O’ Anusandhan Deemed to be University, Bhubaneswar, Odisha, India during during 23rd – 25th May, 2025.
- **Dr.A.Geetha** has secured **Top 1% in the NPTEL Online Certification course** named “Education for Sustainable Development” during May 2025.
- **Dr.A.Geetha** has received the **Certificate of appreciation** for Securing a granted patent from SSR IST during April 2025.
- **Dr.V.Pradeep** work has been recognized as “**Top Cited Article**” in International Level by IET Control Theory & Applications, Wiley Publications entitled as “Experimental analysis of passivity-based control theory for permanent magnet synchronous motor drive fed by grid power” during April 2025.

AWARDS AND ACHIEVEMENTS

- **Dr.R.Narayanamoorthi** has received the **Young Scientist Fellowship Award** by Tamil Nadu State Council for Science and Technology during May 2025.
- **Dr.R.Narayanamoorthi** has received the **Best Paper Award** in International Conference on AI for Ocean - 2025 for Underwater Image Enhancement On Lab Space Color Method Using Faster Region-Based Convolutional Neural Network during April 2025.
- **Dr.R.Narayanamoorthi** has received the **Best Paper Award** for Underwater Image Enhancement Using White Balancing with Color Correction Based On Recurrent Neural Network organized by the Department of Data Science and Business Systems, SRMIST during April 2025.
- **Dr.R.Narayanamoorthi** has received the **Best Paper Award** in International conference on Recent Innovations and Trends in Electrical & Electronics Engineering and Computing (RITEEC 2025) for the paper entitled Power Factor Correction Of Bidirectional Wireless Power Transfer For EV Application during May 2025.
- **Dr.R.Ramya** has received the **Certificate of appreciation** for dedicated service and outstanding contributions to the successful execution of PALS 2024-25 programs, as the “Pals Executive Committee Member” by PALs - An IIT Alumni Initiative, IIT Madras during June 2025.
- **Dr.V.Pradeep** work has been recognized as “**Top 10% of most-viewed papers**” in International Level by IET Control Theory & Applications, Wiley Publications entitled as “Experimental analysis of passivity-based control theory for permanent magnet synchronous motor drive fed by grid power” during May 2025.

Congratulations!

FUNDED PROJECTS

Project Title: Development of a Digital Twin for Underwater Gliders -A Virtual Real-time Interactive Platform

PI: Dr. J.Preetha Roselyn

Co Pls: Dr.C.Nithya

Dr.U.Sowmmiya

Dr. Phani Teja Bankupalli

Funding Agency: Andromeida Maritime Solutions Pvt Ltd, Haryana

Sanctioned Amount: 8 Lakhs

Project Title: Implementation of Fault-tolerant converter for DC Microgrid architecture in Type B Health and Wellness center (HWC) in remote rural areas.

PI: Dr.Divya Navamani J

Co Pls: Dr.Lavanya A

Funding Agency: Tamilnadu State Council for Science and Technology

Sanctioned Amount: 2.42 Lakhs

CONSULTANCY

Dr. C.S. Boopathi, Dr. A. Geetha, and Dr. S. Usha provided consultancy on solar panel installation and commissioning at a residence in Namakkal for ₹11,800.

NPTEL COURSE DEVELOPED

Dr.C.Naveen, Assistant Professor in the Department of Electrical and Electronics Engineering, SRM Institute of Science and Technology, served as a course instructor for the SWAYAM online course titled “**Renewable Energy Power Plants Laboratory**” (Course Code: NTR25_ED42), offered under the Ministry of Education’s **NPTEL-SWAYAM** initiative.



RESEARCH PUBLICATIONS

- Aruldoss, Wesley Jeevadason, C. Bharatiraja, and Sanjeevikumar Padmanaban. 2025. “**Evaluating Energy-Exergy-Economics-Environmental Footprint-Enviroeconomics (5e) Framework and Sustainability Metrics with a Case Study of a Twin Wedge Solar Still Based Desalination System.**” *Case Studies in Thermal Engineering* 71:106173. doi: 10.1016/j.csite.2025.106173.
- Chidambararaj, N., S. Shanmugapriya, K. Suresh, and Vasan Prabhu Veeramani. 2025. “**Mitigating Congestion Management in Power Systems with High Renewable Integration Using Hybrid Approach.**” *Journal of Energy Storage* 118:116089. doi: 10.1016/j.est.2025.116089.
- Karpagam, M., S. Sarumathi, A. Maheshwari, K. Vijayalakshmi, K. Jagadeesh, V. Bereznynchenko, and R. Narayanamoorthi. 2025. “**An Effective PO-RSNN and FZCIS Based Diabetes Prediction and Stroke Analysis in the Metaverse Environment.**” *Scientific Reports* 15(1):11633. doi: 10.1038/s41598-025-96541-2.
- Kubendran, V., M. Jagabar Sathik, Mamdouh L. Alghaythi, Meshari S. Alshammari, and K. Vijayakumar. 2025. “**A Novel High Boost Five-Level Inverter With Wide Range of Input Voltage Variations for Photovoltaic Applications.**” *IEEE Access* 13:68984–94. doi: 10.1109/ACCESS.2025.3562121.
- Madavan, R., B. Karthikeyan, R. Palanisamy, Mohammad Imtiyaz Gulbarga, Mohammed Al Awadh, and Liew Tze Hui. 2025. “**Mexican Axolotl Optimization Algorithm with a Recalling Enhanced Recurrent Neural Network for Modular Multilevel Inverter Fed Photovoltaic System.**” *Scientific Reports* 15(1):14134. doi: 10.1038/s41598-025-97467-5.
- Mohan, T. Roosefert, R. Annie Uthra, and J. Preetha Roselyn. 2025. “**Intelligent and Effective Means of Power Utilization in Induction Furnace Controlled Melting Process of Foundry Industries Reducing CO2 Emissions.**” *Electrical Engineering*. doi: 10.1007/s00202-025-03049-z.
- Navamani J, Divya, and Boopathi K. 2025. “**Reliability Analysis of Fault-Tolerant Reconfigurable Non-Isolated Dc-Dc Converter for Dc Microgrid.**” *International Journal of Electronics Letters* 1–8. doi: 10.1080/21681724.2025.2487784.
- R, Nakkeeran, Bharatiraja C, and Sanjeevikumar P. 2025. “**Photovoltaic-Based Vertical Wireless Charging for Sustainable Marine Electric Systems.**” *Results in Engineering* 26:105044. doi: 10.1016/j.rineng.2025.105044.
- Rajamanickam, Narayanamoorthi, Vigna K. Ramachandaramurthy, Radomir Gono, and Petr Bernat. 2025. “**Misalignment-Tolerant Wireless Power Transfer for High Endurance IoT Sensors Using UAVs and Nonlinear Resonant Circuits.**” *Results in Engineering* 26:104879. doi: 10.1016/j.rineng.2025.104879.

- **Bharatiraja, C., R. Nakkeeran, and Mahesh Aganti.** 2024. “**An Optimized Hexagonal Geometry Magnetic Coupler for Floor-Mounted Electric Vehicles Wireless Charging System.**” Pp. 1–5 in 2024 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES). IEEE.
- **Bharatiraja, C., and G. Ramanathan.** 2024. “**A PV Grid Tied Modified Z-Source Inverter for an Inductive Wireless EV Charging System.**” Pp. 1–6 in 2024 IEEE International Conference on Power Electronics, Drives and Energy Systems.
- **Eswar, Kodumur Meesala Ravi, V. Kubendran, Siva Prasad Athikkal, Mohit Verma, Chandan Thakur, and Nandini Nitin Pandhare.** 2025. “**A Dual Switch DC/DC Convertor for Extensive Voltage Conversion Applications.**” Pp. 1–6 in 2025 Fourth International Conference on Power, Control and Computing Technologies (ICPC2T).
- **Gayathri, P., N. P. Gopinath, M. Jagabar Sathik, and K. Vijayakumar.** 2025. “**Design of Nine-Level Switched Capacitor-Based Inverter with Low Voltage Stress.**” Pp. 694–98 in 2025 Fourth International Conference on Power, Control and Computing Technologies (ICPC2T). IEEE.
- **Ilambirai, R. C., Barkathulla. A, G. Mahalakshmi, J. Jagan Babu, Prabu K, and C. Srinivasan.** 2025. “**Cloud-Based AI Robotics for Precision Pruning of Fruit Trees to Improve Sustainable Farming.**” Pp. 602–7 in 2025 3rd International Conference on Intelligent Systems, Advanced Computing and Communication (ISACC). IEEE.
- **Lourdu Jame, S., Chitra Sabapathy Ranganathan, S. K. Saravanan, Bharat Tidke, E. Punarselvam, and M. Rajmohan.** 2025. “**IoT-Driven Predictive Analytics for Precision Harvest Timing with LightGBM Models.**” Pp. 446–51 in 2025 International Conference on Visual Analytics and Data Visualization (ICVADV).
- **M, Jagabar Sathik, Arpan Hota, Vigna K. Ramachandramurthy, Mamdouh L. Alghaythi, Saad Mekhilef, and Vivek Agarwal.** 2024. “**Improved Boost Type-ANPC 5L Inverter Topology.**” Pp. 1–5 in 2024 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES). IEEE.
- **M, Jagabar Sathik, Vigna K. Ramchandramurthy, Dhananjaya M, Mamdouh L. Alghaythi, Meshari S. Alshammari, and Saad Mekhilef.** 2024. “**Improved ANPC Three-Level Inverter with Voltage Boosting Ability.**” Pp. 1–5 in 2024 IEEE International Conference on Power Electronics, Drives and Energy Systems
- **Mahaadevan, V. C., R. Narayanamoorthi, Khyathi Atmakuru, and Neha P.** 2025. “**Enhanced Multi-Reference Real-Time Object Detection Using Oriented FAST and Rotated BRIEF.**” Pp. 1–4 in 2025 IEEE International Students’ Conference on Electrical, Electronics and Computer Science (SCEECS). IEEE.
- **N V, Sivaram, Lavanya A, and Divya Navamani J.** 2025. “**Comparative Failure Rate Analysis of Dual Input Boost Converters.**” Pp. 1–6 in 2025 3rd IEEE International Conference on Industrial Electronics: Developments & Applications (ICIDeA).

- Nakkeeran, R., and C. Bharatiraja. 2024. “A Sensing Coil in Inductive EV Charging Systems for Estimating the Coupling Coefficient and Receiver Resonant Frequency.” Pp. 1–6 in 2024 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES). IEEE.
- Purushothaman, D., Narayanamoorthi R, Dominic Savio A, and Yuvaraja Shanmugam. 2025. “Bidirectional Wireless Power Transfer for Electric Vehicles with Integrated Constant Current and Constant Voltage Charging Capabilities.” Pp. 1–6 in 2025 3rd IEEE International Conference on Industrial Electronics: Developments & Applications (ICIDEA). IEEE.
- Purushothaman, D, Narayanamoorthi R, and Yuvaraja Shanmugam. 2025. “Bidirectional Matrix Converter Based Versatile Wireless Power Flow System for G2V and V2X Operation.” Pp. 1–6 in 2025 IEEE International Students’ Conference on Electrical, Electronics and Computer Science (SCEECS). IEEE.
- Shanmugapriya, S., Rajendra Prasad, Mohammed H. Al-Farouni, R. Velmurugan, K. Ranjith Singh, and Selvin Pradeep Kumar S. 2025. “Enhancing Industrial Automation Through IIoT-Enabled Cloud Computing and LSTM for Scalable and Real-Time Data Analytics.” Pp. 212–17 in 2025 International Conference on Automation and Computation (AUTOCOM).
- Sasikala, P., K. Subha Sharmini, Venkatesan Sorakka Ponnappan, K. R. Kavitha, K. Gunasekaran, and C. Srinivasan. 2025. “IoT-Integrated Convolutional Neural Network for Accurate Vehicle Acoustic Signal Analysis.” Pp. 1–6 in 2025 3rd International Conference on Integrated Circuits and Communication Systems (ICICACS). IEEE.
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PATENTS

Granted

- **Dr.C.Anuradha, Dr.S.Vijayalakshmi, Dr.K.Mohanraj, Dr.M.Arun Noyal Doss** received patent grant for the title, "Block Chain Based Healthcare Data Analyzer ", Government of India, **Grant number: 450954-001.**
- **Dr.R.Narayanamoorthi** received patent grant for the title, "A wireless power transfer and data communication system for electric vehicle charging ", Government of India, **Grant number: 450954-001.**

Published

- **Dr.S.Shanmugapriya** published patent title, "Three-Phase Frequency-Adaptive Digital Phase-Locked Loop For Enhanced Power System Measurement, Control, And Protection", Indian patent, **Application Number: 202541028842 A.**
- **Dr.C.S.Boopathi** published patent title, "AI-Integrated Edge Computing Device ", Indian patent, **Application Number: 443164-001.**
- **Dr.C.Bharatiraja** published patent title, "Autonomous UAV for Wildlife and Plant Monitoring", Indian patent, **Application Number: 202341078576 A.**
- **Dr.K.Subha Sharmini** published patent title, "A system and method for blockchain based integrity verification in cloud computing systems", Indian patent, **Application Number: 448300-001.**
- **Dr.R.Sridhar, Dr.S.Usha, Dr.A.Geetha** published patent title, "A Solar-Powered Water Level Monitoring and Control System with Leakage Detection and IoT Integration", Indian patent, **Application Number: 202541053703.**
- **Dr.S.Shanmugapriya** published patent title, "AI based Device for Network Resource Optimising", Indian patent, **Application Number: 449871-001.**
- **Dr.K.Mohanraj, Dr.S.Vidyasagar, Dr.C.Naveen** published patent title, "Qenergymap Smart Quantum Battery Design", Indian patent, **Application Number: 202541028195.**
- **Dr.R.Sridhar, Dr.A.Geetha and Dr.S.Usha** published patent title, "Mini UPS for Essential Home Appliances", Indian patent, **Application Number: 202541015701.**
- **Dr.K.Selvakumar, Dr.D.Selvabharathi, Dr.R.Palanisamy, Dr.D.Karthikeyan,** published patent title, "Bidirectional Energy Transfer System Between Electric Vehicles and Smart Grid", Indian patent, **Application Number: 202541055303.**
- **Dr.U.Sowmmiya, S.Dhanishka Gaikwad, E.Sangeetha, R.Ishwariya,** published patent title, "Artificial Circular Wind Emulator For Small Scale Wind Turbines", Indian patent, **Application Number: 450302-001.**
- **Dr.P.U.Poornima,** published patent title, "Wireless Power Transfer for Electrical Vehicle", Indian patent, **Application Number: 202541054571 A.**
- **Dr.S.Lourdu Jame,** published patent title, "AI Based Smart Energy Management System for Renewable Grids", Indian patent, **Application Number: 202541054610 A**
- **Dr.R.C.Ilambirai,** published patent title, "A Solar Panel with Maximum Power Point Tracking using AI", Indian patent, **Application Number: 202541054630 A**

FACULTY FACILITATIONS

- **Dr.K.Subha Sharmini** attended BoS Meeting at [Arunai Engineering College](#), Thiruvannamalai on 4th of April 2025.
- **Dr.C.Subramani** served as Visiting Faculty at [Roever Engineering College](#), Perambalur on 8th of April 2025.
- **Dr.C.Subramani** participated as [Doctoral Committee Member](#) at [Dr. N.G.P. Institute of Technology](#), Coimbatore on 16th of May 2025.
- **Dr.C.Subramani** acted as [Research Advisory Committee Member](#) at [PRIST University](#), Thanjavur starting on 16th of April 2025.
- **Dr.U.Sowmmiya** served as [Program Advisory Board Member](#) at [Vellammal Engg College, Chennai](#) on 10th of May 2025.
- **Dr.M.Arun Noyal Doss** served as [Scrutiny Member for UG and PG board](#) at [Anna University](#), College of Engineering, Guindy on 17th of May 2025.
- **Dr.D.Sattianadan** participated in School Level Advisory Committee Meeting at [B.S. Abdur Rahman Crescent Institute](#), Vandalur on 3rd of June 2025.
- **Dr.C.S.Boopathi** attended [DC Meeting](#) at [Knowledge Institute of Technology](#), Salem on 13th of June 2025.
- **Dr.C.S.Boopathi** participated in [DC Meeting](#) at [Vels Institute of Science](#), Chennai on 23rd of June 2025.
- **Dr.R.Ramya** participated in [PALs Annual Day Event \(IITM Alumni Chapter\)](#) on 20th June 2025
- **Dr.R.Ramya** attended [DC Meeting](#) at [Anna University](#), Chennai on 20th June 2025.
- **Dr.P.Kanakaraj** delivered a [Guest Lecture](#) at [Anna University](#), Chennai on 1st of April 2025.



FACULTY PARTICIPATION

- **Dr.P.U.Poornima** completed an 8-days Faculty Development Program organized by **ABV-IIITM Gwalior and PDPM IIIT Jabalpur**, titled “**Machine Learning for Social Good**” from 02-04-2025 to 09-04-2025.
- **Dr.P.U.Poornima and Dr.R.Femi** attended a 6 Days National Level Workshop conducted by EMATIX Embedded & Software Solutions Inc and Co-Hosted by **SRM Institute of Science & Technology**, titled “**Mediduino:Arduino Programming For Biomedical Applications**” from 31-03-2025 to 05-04-2025.
- **Dr.R.Femi** completed a 5 Days Faculty Development Programme conducted by **Saradha Gangadharan College,Puducherry**, titled “**Future of AI in Education: Enhancing Teaching and Learning**” from 14-04-2025 to 18-04-2025.
- **Dr.S.Shanmugapriya** completed a 5 days Faculty Development Program conducted by **SRM Institute of Science and Technology**, titled “**Behavioural Psychology**” from 21-04-2025 to 25-04-2025.
- **Dr.K.Subha Sharmini** presented a paper named “**Enhanced Security in Patient Isolation Management with IoT and LSTM Model**” in International Conference conducted by O. P. Jindal University, Raigarh Chhattisgarh, titled “the **2025 4th OPJU International Technology Conference-OTCON 4.0 O. P. Jindal University , Raigarh**” from 09-04-2025 to 11-04-2025.
- **Dr.K.Subha Sharmini** presented a paper “**AI-Enhanced Wearable IoT Monitors for Early Detection of Hypothermia in Elderly**” in International Conference conducted by Departments of CSE, ISE, ECE, CSE (AI & ML), CSE (DS) at Sai Vidya Institute of Technology, Bengaluru, titled “**International Conference on Advancement in Communication and Computers in Technology-INOACC 2025**” from 04-04-2025 to 06-04-2025.
- **Dr.S.Shanmugapriya** completed a 3 Days course titled “**Generative AI for academia**” from 13-03-2025 to 15-03-2025.
- **Dr.R.Femi** completed a 14 Days faculty development program titled “**Leveraging Advanced Power Conversion Systems and Artificial Intelligence for Electric Vehicles**” from 08-05-2025 to 21-05-2025.
- **Dr.R.Ramya** attended a 2 Days Workshop conducted by Internal Quality Assurance Cell, **Thiagarajar College of Engineering**, titled “**Outcome Based Education**” from 23-05-2025 to 24-05-2025.
- **Dr.S.Usha, Dr.A.Geetha, Dr.T.M.Thamizh thentral and Dr.P.Suresh** attended a 5 Days workshop organized by **St. Joseph's Institute of Technology OMR**, Chennai, titled “**AI in health care**” from 19-05-2025 to 23-05-2025.
- **Dr.S.Vijayalakshmi and Dr.C.Anuradha** attended a 6 Days National Level Skill Enhancement program organized by, **R.M.K. College of Engineering and Technology**, titled “**Quantum Computing: Concepts and Research Avenues**” from 19-05-2025 to 24-05-2025.
- **Dr.K.Saravanan** completed a 5 Days faculty development program titled “**Next Gen Cybersecurity with AI: Techniques and Trends**” from 26-05-2025 to 30-05-2025.

- **Dr.R.Femi** completed a 6 days faculty development programme organized by **Electronics and ICT Academy IIT Roorkee**, titled “**Emerging Frontiers in AI, Quantum, and Nature-Inspired Computing: Bridging Future Technologies**” from 02-06-2025 to 07-06-2025.
- **Dr.R.Femi** attended a 5 Days Workshop titled “**Application Development with AI & Essential Skills**” from 23-06-2025 to 27-06-2025.
- **Dr.N.Chellammal and Dr.P.U.Poornima** attended a 5 Days Continuing Education Program organized by **Indian Institute of Technology Patna**, titled “**Recent Advancements in Electric Vehicles Technology**” from 09-06-2025 to 13-06-2025.
- **Dr.N.Chellammal** completed a 6 days Faculty Development Program organized by **Panimalar Engineering College**, titled “**Harnessing Intelligent Systems Accelerating Digital Evolution in Industry 5.0 Framework**” from 23-06-2025 to 28-06-2025.
- **Dr.K.Subha Sharmini** completed a 1 month Internship conducted by **Marcello Tech**, titled “**Mobile App Development with Android Studio**” from 19-05-2025 to 18-06-2025.
- **Dr.R.Ramya** completed a 5 days course in the faculty development program titled “**Revised NBA Accreditation Tier 1 Framework Implementation and Outcomes**” from 23-06-2025 to 27-06-2025.
- **Dr.K.Subha Sharmini** completed a 1 month Internship conducted by Marcello Tech, titled “**Java Programming**” from 03-03-2025 to 02-04-2025.
- **Dr.B.Vinothkumar** completed a 8 weeks Faculty Development Programme conducted by **Advaced Credentials**, titled “**Generative AI for Academia**” from 01-02-2025 to 01-04-2025.

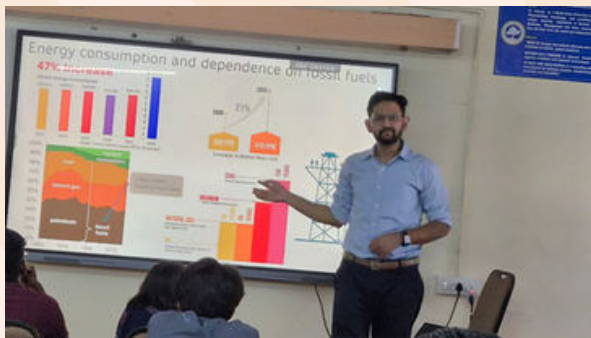


ONLINE COURSE

- **Dr.A.Geetha, Dr.T.M.Thamizh Thentral, Dr.S.Usha, Dr.D.Sattianadan, Dr.C.S.Boopathi, Dr.V.Pradeep, Dr.A.Sureshkumar, Dr.D.Selvabharathi, Dr.R.Palanisamy, Dr.D.Karthikeyan, Dr.P.Suresh, Dr.C.Naveen, Dr.K.Mohanraj, Dr.K.Selvakumar, and Dr.V.Kalyanasundaram** completed the NPTEL course **Introduction to Environmental Engineering and Science – Fundamental and Sustainability Concepts** from 01-01-2025 to 30-04-2025.
- **Dr.A.Geetha, Dr.T.M.Thamizh Thentral, Dr.S.Usha, Dr.D.Sattianadan, Dr.C.S.Boopathi, Dr.D.Selvabharathi, Dr.V.Pradeep, Dr.A.Sureshkumar, Dr.R.Palanisamy, Dr.D.Karthikeyan, Dr.P.Suresh, Dr.V.Kubendran, Dr.M.Arun Noyal Doss, Dr.S.Shanmugapriya, Dr.C.Naveen, Dr.K.Mohanraj, Dr.K.Selvakumar, and Dr.V.Kalyanasundaram** completed the NPTEL course **Education for Sustainable Development** from 01-01-2025 to 30-04-2025.
- **Dr.D.Sattianadan** completed the NPTEL course **Business Fundamentals for Entrepreneurs** from 01-01-2025 to 30-04-2025.
- **Dr.C.Subramani and Dr.B.Vinothkumar** completed the NPTEL course **AI in Human Resource Management** from 01-01-2025 to 30-04-2025.
- **Dr.C.Subramani, Dr.B.Vinothkumar, Dr.P.U.Poornima, Dr.S.Lourdu Jame and Dr.R.C.Ilambirai** completed the NPTEL course **NBA Accreditation and Teaching and Learning in Engineering** from 01-01-2025 to 30-04-2025.
- **Dr.C.Subramani and Dr.B.Vinothkumar** completed the NPTEL course **Organizational Behaviour: Individual Dynamics in Organization** from 01-01-2025 to 30-04-2025.
- **Dr.P.U.Poornima** completed the NPTEL course **Internet of Things** from 20-01-2025 to 26-04-2025.
- **Dr.P.U.Poornima and Dr.S.Lourdu Jame** completed the NPTEL course **Data Analytics with Python** from 20-01-2025 to 26-04-2025.
- **Dr.R.C.Ilambirai** completed the NPTEL course **Data Analytics with Python** from 01-02-2025 to 30-04-2025.
- **Dr.R.C.Ilambirai and Dr.K.Subha Sharmini** also completed the NPTEL course **Psychology of Stress, Health, and Wellbeing** from 01-03-2025 to 30-04-2025.
- **Dr.K.Subha Sharmini** also completed the NPTEL courses **Computer Aided Design of Electrical Machines and Entrepreneurship Essentials** from 20-01-2025 to 11-04-2025.
- **Dr.K.Subha Sharmini** further completed the SWAYAM course **Design Thinking and Innovation** from 20-01-2025 to 16-05-2025.
- **Dr.R.Uthra and Dr.R.Rajarajeswari** completed the NPTEL course **Cognitive Psychology** from 01-01-2025 to 30-04-2025.
- **Dr.M.Kalaiarasi** completed the NPTEL course **Digital System Design** from 01-01-2025 to 30-04-2025.
- **Dr.N.Kalaiarasi and Dr.D.Suchitra** completed the NPTEL course **Ethics in Engineering Practice** from 01-02-2025 to 30-04-2025.
- **Dr.C.Anuradha** completed the NPTEL course **Research Methodology in Natural Sciences** from 01-01-2025 to 30-04-2025.
- **Dr.R.Senthil Kumar** completed the NPTEL course **Communication Networks** from 18-01-2025 to 30-04-2025.



Events



Mr PRANJUL MANI DUBEY
Alumni Talk - From Electronics to Energy:
Unlocking the Power of Fuel Cells on
07-04-2025



Mr. Selva Soorya Pattukumar
Alumni Talk - EEE Career Paths: Core
vs Non-Core & Industry Demands
28-02-2025



Outreach activity - Our Power, Our
Planet: SRMIST Hosts Solar Lamp
Training on Earth Day 2025 on
22-04-2025



Outreach activity - Training Program on
Solar Study Lamp Assembly on
08-05-2025



Project and Poster Expo 2025
on 24-04-2025 and 25-04-2025



Industrial Lecture - "Digitization of Power
Systems" from 07-04-2025 to 09-04-2025

WORKSHOP



Green Campus, Smart Buildings: Workshop on Electrical and HVAC Audits on 23-04-2025 and 24-04-2025



Technical Upskilling on operation and maintenance of Electrical Utilities from 09-05-2025 to 11-05-2025



Application Development with AI & Essential Skills from 23-06-2025 to 27-06-2025

FACULTY ARTICLE

In our ongoing journey through Universal Human Values, we have reflected on the nine foundational feelings that nurture meaningful relationships: Trust, Respect, Affection, Care, Guidance, Reverence, Glory, Gratitude, and Love. This month, we turn our focus to one of the most vital yet often misunderstood feelings - ****Respect****

What is Respect?

Respect, in its true sense, is not about admiration based on status, age, or achievement. It is about something far deeper and more universal: ****Respect** = Right Evaluation**

To respect someone is to evaluate them rightly—seeing them for what they truly are, without distortion or bias. It means recognizing the inherent potential and uniqueness in every individual.

When Evaluation Goes Wrong Often, our interactions are clouded by incorrect evaluations, which lead to disrespect. These can take three forms:

- Over evaluation (OvE) – to evaluate for more than what it is
- Under evaluation (UE) – to evaluate for less than what it is
- Otherwise evaluation (OE) – to evaluate for other than what it is

All three OvE, UE, OE are Not naturally acceptable. Whenever the evaluation is not right

It is disrespect: Wrong evaluation -> Disharmony within -> Tension -> Frustration -> Depression -> Suicide.

🔍 Self-Check: Are We Truly Respecting?

In every interaction—whether with students, colleagues, or family—ask yourself:

- Am I seeing the person as they truly are?
- Am I overestimating, underestimating, or misjudging them?
- Is my evaluation based on their role, appearance, or past, rather than their potential and intent?

When we practice right evaluation, we naturally foster respect. And where there is respect, relationships thrive.

Why It Matters in Engineering Education ?

As educators and learners in the field of engineering, we often focus on precision, logic, and systems. But human relationships require a different kind of clarity—one rooted in understanding and empathy. Respect is the bridge between technical excellence and human connection.

Let's strive to bring this clarity into our classrooms, labs, and daily lives. Because when we evaluate rightly, we not only uplift others—we elevate ourselves.

v Next in the series: Affection—The Warmth That Follows Respect

(Reference : AICTE approved UHV – II)

Dr.S.Shanmugapriya
Assistant Professor
(To be continued ...)

Standards Awareness

-The Compass for Your Path to Excellence

Understanding IS 3043:2018 – Earthing Systems that Guard Every Circuit

- *Grounding Electrical Safety with Confidence*

Why Earthing Matters?

Imagine a building without a foundation—it would collapse in chaos. Similarly, an electrical system without earthing is like a structure without safety. Earthing, or grounding, is not just a compliance formality; it's a lifeline for protecting human life, equipment, and ensuring system continuity.

IS 3043:2018, titled "Code of Practice for Earthing", provides comprehensive guidelines to design, install, inspect, and maintain earthing systems for all types of electrical installations—be it in buildings, substations, industrial plants, or even medical facilities.

What Does the Standard Cover?

- System Earthing – For stabilizing voltage during faults.
- Equipment Earthing – To protect users from indirect contact.
- Touch and Step Voltages – Managing hazardous potential differences.
- Ground Grid Design – Earthing mesh, rods, and resistance measurements.
- Classification of Earthing Systems – TN-S, TN-C-S, TT, IT explained with real-life examples.
- Earthing in Special Areas – Like mines, streetlights, telecom setups, and generators.

Why Should Students Learn IS 3043?

- Every lab setup you wire, every project you build, and every device you test—depends on earthing to avoid disaster.
- It directly supports topics in Power Systems, Protection, and Electrical Installations.
- Knowing IS 3043 makes you job-ready for audits, testing roles, and public utility design.

It's a bridge between textbook learning and practical engineering wisdom.

Scenario

Fault in a Domestic Wiring System (TN-S System)

Situation

A student designs a home wiring model for a mini-project using a TN-S system. During operation, a live wire accidentally touches the metallic casing of a mixer grinder.

Application of IS 3043

IS 3043 requires the casing (an *exposed conductive part*) to be connected to the earth through a protective conductor. The earth fault current flows through the low impedance earth loop and trips the MCB/RCD, disconnecting the supply in milliseconds.

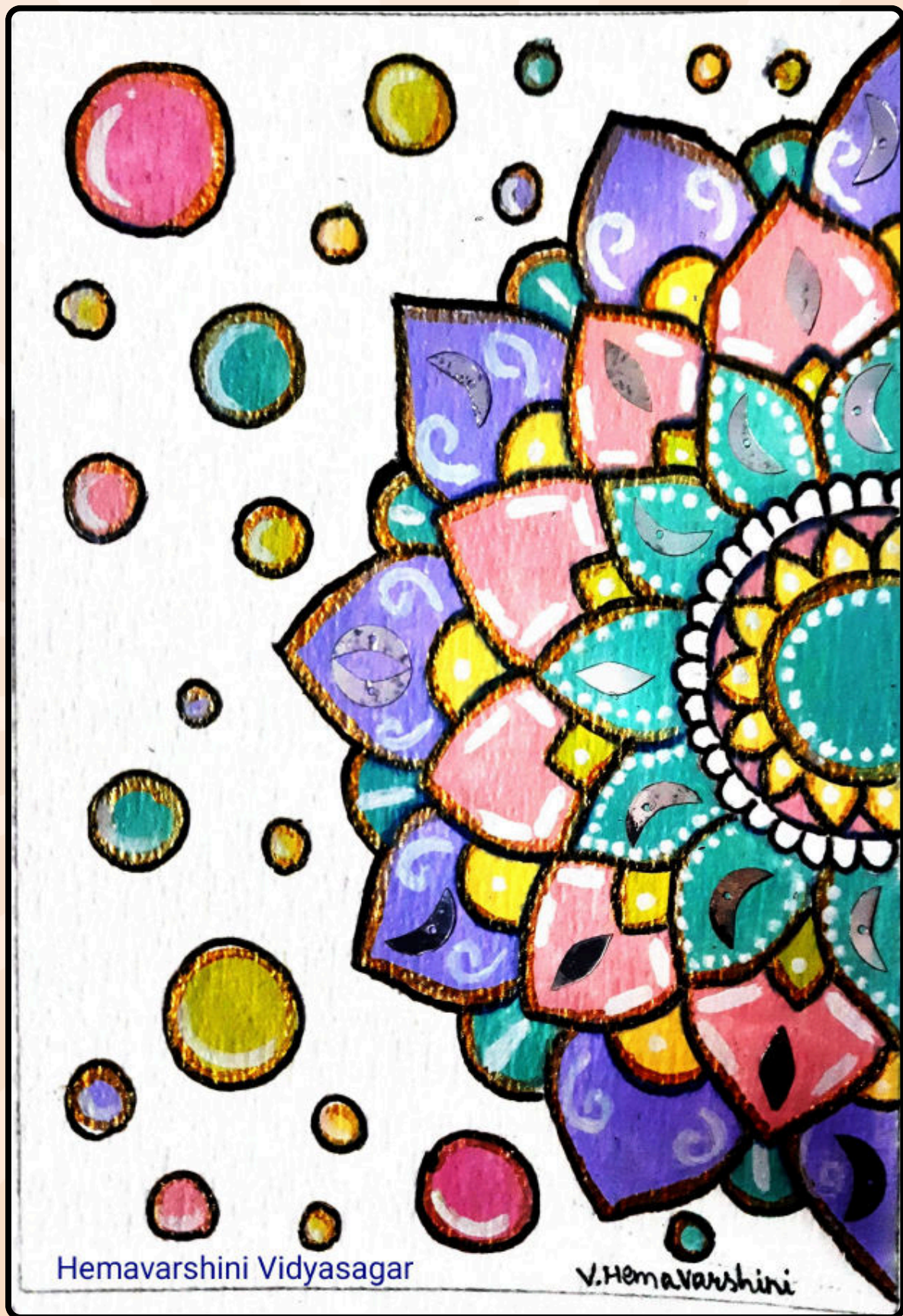
Learning

Without proper earthing as per IS 3043, the user could receive a lethal shock. **The standard ensures that touch voltage is reduced and fault current is safely discharged.**

"An ungrounded engineer is a dangerous idea. Standards like IS 3043 root us in responsibility."

Let's embed safety in every socket, standard in every wire, and pride in every practice.

Dr. R. Ramya
Faculty Mentor
BIS Standards Club, EEE





For Feedback, Copyright and Suggestions :
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A++



Category 1
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