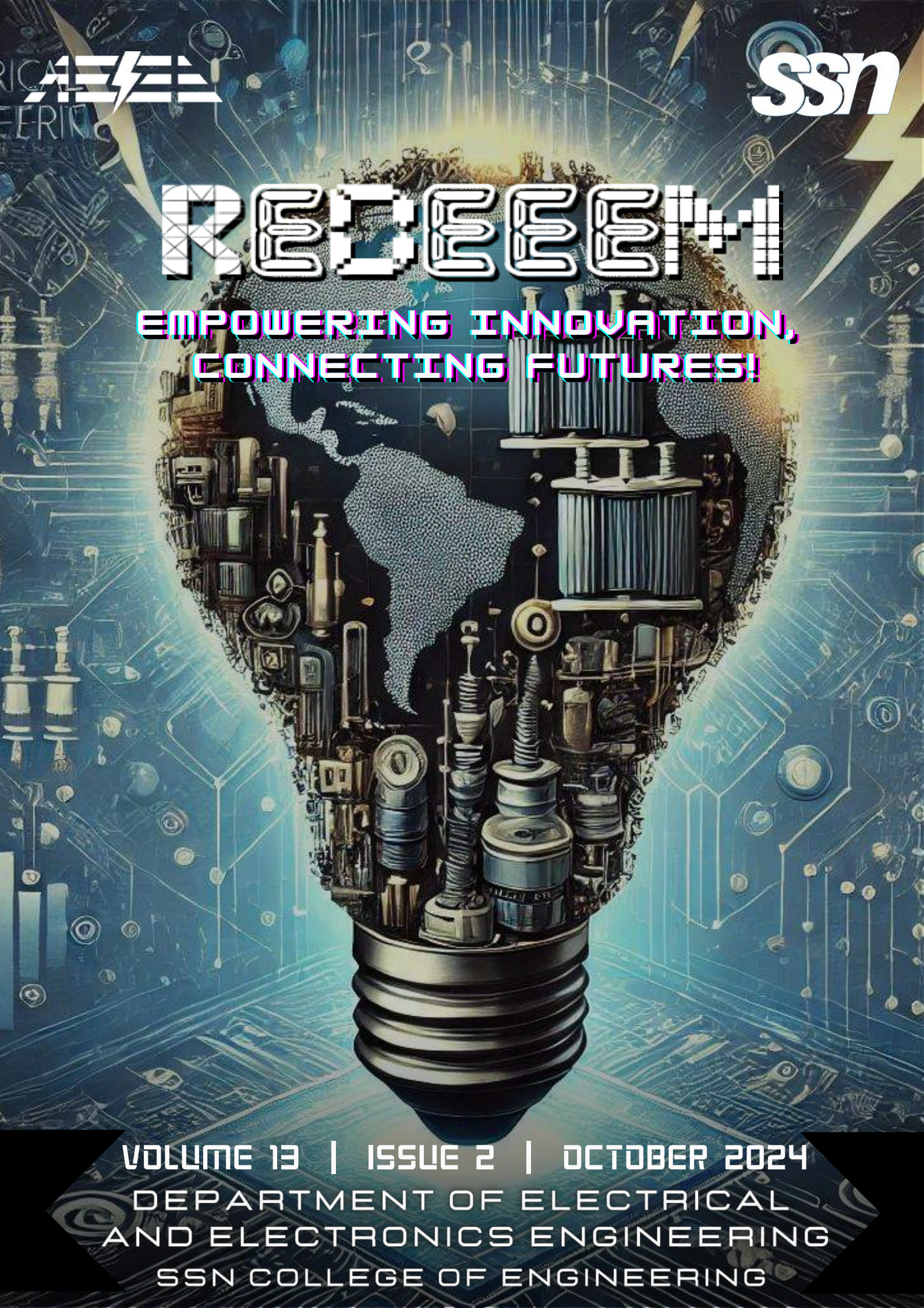
REDEEM-1

EMPOWERING INNOVATION, CONNECTING FUTURES!



VOLUME 13 | ISSUE 2 | OCTOBER 2024

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

Meet the dynamic team bringing this edition to you

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FROM THE HOD'S DESK

A MESSAGE FROM THE HEAD OF OUR DEPARTMENT

Dr. V. Rajini

I am pleased to present the October 2024 edition of *REDEEM*, the newsletter of our department. This edition introduces several new features such as *EEE Pulse*, *Campus Pulse*, and more. The editorial note on mental awakening for inner growth is particularly impressive and is a "must-read" section. In addition to the department's highlights and research activities, this edition covers the 10th International Conference on Electrical Energy Systems (ICEES 2024), held during August 22-24, 2024, co-hosted by the University of Malaya and technically co-sponsored by IEEE Madras Section.

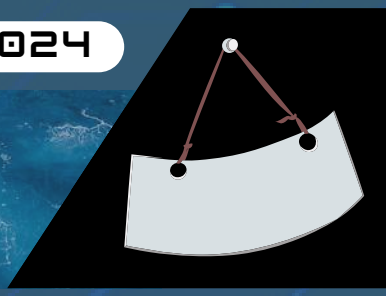
My congratulations to Dr. R. Ramaprabha and Dr. R. Seyezhai for receiving the Best Teacher Awards.

We firmly believe that academic excellence alone is not enough to create the leaders of tomorrow. Our department is committed to providing a 360-degree orientation to students, and this edition highlights various initiatives such as soft skills training, placement preparation sessions, orientation for GATE aspirants, and an innovation orientation segment in the EEE Pulse corner. Additionally, this issue features EEE alumnus Avinash Ramanathan, a Forbes 30 Under 30 honouree and a prominent venture capitalist at Kalaari Capital.

The Student Corner is particularly engaging, with students sharing their placement and internship experiences, the journey of making their first short film, and the story of "Electric Boy." This edition also chronicles the journey of S. Krishna Prasad, a 2007-2011 batch alumnus currently working at Google, California.

I extend my gratitude to the entire editorial team for their efforts in conceptualizing this newsletter. I hope you enjoy reading this edition as much as I enjoyed bringing it to you.

I look forward to future editions, filled with even more captivating activities and features.



PREFACE

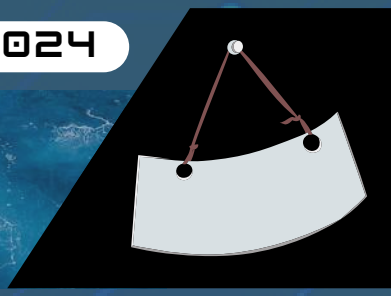
A HEARTFELT MESSAGE FROM THE EDITORIAL BOARD

Have you ever noticed a constant voice in your head or an incessant stream of thoughts that never seems to stop? Perhaps you believe that this voice is who you really are. The main problem with this thought is the way we deeply identify with it. Every time a thought arises, it carries with it an identification, a sense of self that surrounds us and makes us believe that we are what we are thinking. As a result, without realizing it, we start creating a false identity based on judgments, memories, and future projections. This identity, which we believe to be so real is actually constructed from the automatic flow of thoughts without any conscious involvement. The mind creates stories, judges, compares, pretends, remembers and we simply follow that flow without questioning its origin or validity. This state of being caught by our thoughts is an illusion that keeps us trapped in a fabricated reality. It's like living in a dream, where each thought shapes our perception and consequently our actions. When we are in this state, we are often in the past with its memories and regrets, or to the future, with its anxieties and uncertainties. This continuous cycle disconnects us from the true essence of what it means to be alive, conscious and present.

However, recognizing this constant flow of thoughts is the first step towards awakening. This simple act of observation creates a small distance between you and your thoughts. Suddenly, you are no longer completely absorbed by the mental content, and this opens up space for something new. This active observation is the beginning of a transformative journey because when you recognize that your thoughts are not you but rather a manifestation of the mind, you start to weaken the false identity those thoughts construct, and over time, this practice of conscious observation allows you to access a deeper level of perception where thought no longer dominates your experience. You understand that thinking is a natural function of the human mind, and it is because of your ignorance you are following it, draining your emotions and energy. You learn to not to hang on with it and just label it and leave.

PREFACE

A HEARTFELT MESSAGE FROM THE EDITORIAL BOARD



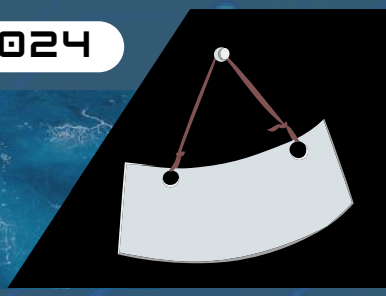
Now, your relationship with that thought changes and instead of being controlled by it, you begin to notice that there is something beyond thoughts, a consciousness that observes that is present. And it is at this point that true awakening begins to blossom leading you to a deeper understanding of who you really are and what is difference between thinking and being. Simply when we are aware of it, we feel the moment deeply. Thinking ceases, and the space for a broader perception opens up in this state and the true essence of life can be experienced.

These moments of presence are essential for our inner growth. They may seem brief and insignificant, but each one has the potential to bring us closer to a deeper and more lasting state of consciousness. It is through these small openings that we begin to understand that true peace does not come from solving every problem or controlling all circumstances, but by being fully present in whatever is happening right now. And every time we experience this state, no matter how brief, a seed of consciousness is planted within us and over time these flashes of consciousness start to become more frequent. They stop being isolated moments and begin to integrate into our daily lives, what was once a brief instant of peace now expands, and the feeling of presence becomes more accessible. This is the process of awakening, not a sudden and definitive change, but a series of small steps, small openings that lead us to a new way of being and the key to cultivating these flashes of consciousness is simply being open and being receptive to the present moment without expectations or judgments.

Awakening lies a continuous gradual and deeply transformative experience the practice of bringing attention back to the present moment not only transforms the way we perceive the world but also changes our relationship with it. Being present is more than simply living in the here and now superficially, it’s a radical shift in how we interact with our thought’s emotions and circumstances. When we are fully present, we begin to realize that most of the problems we face don’t come from reality itself but from our mental interpretation of it.

PREFACE

A HEARTFELT MESSAGE FROM THE EDITORIAL BOARD



The mind can turn a small worry into a major source of anxiety simply by projecting future scenarios or reliving past events. By bringing awareness to the present moment, we interrupt this cycle, and so the mind no longer has fuel to feed these worries and as a result, we feel a peace that comes from the simple experience of being here now. This inner peace is transformative, not only in personally but also in our relationships with others and when we are present, we become more attentive, more open and, less reactive. Our interactions are no longer governed by the ego or automatic thought patterns. Instead, we respond to each moment genuinely without bringing the weight of the past or the expectations of the future into the conversation. This creates a new quality in relationships where communication becomes clearer, more authentic, and more empathetic. This state of awareness takes us away from the continuous flow of thoughts and judgments and allows us to see things as they really are without the filters that thoughts create. This brings clarity and a new way of seeing life that was previously hidden behind mental noise.

“Pain is inevitable, Suffering is optional “

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

1.External recognition

Dr.M.Senthil Kumaran delivered a Guest Lecture titled, **"Applications of STM 32 for Real Time Problems"** on 27/07/2024 for the students of EEE Department, Saveetha Institute of Medical and Technical Sciences, Chennai.

Dr. R. Seyezhai, was invited for technical screening - **SSNiFound Industry 4.O Cohort** and evaluated the technical aspects of **7 start-ups** on 24/08/2024 organized by SSNiFound.

Dr.R.Seyezhai, was invited as the **Chief Guest** to hoist the flag and deliver a speech at the Independence Day celebrations at **Kidz World School** at Anupuram, on 15/08/2024 organized by Kidz World School, Anupuram.

Dr. R. Ramaprabha delivered an invited lecture on **Applications of Intelligent Controllers for PV Energy Conversion System** on Aug 07, 2024 in a Five-Day Faculty Development Program on "Recent Advancements, Challenges, and Simulation Methodologies in Power Electronic Applications" conducted by Rajalakshmi Engineering College during Aug 05 to Aug 09, 2024.

Dr. M. Balaji delivered a Guest Lecture titled **Diagnostic Techniques for Electric Vehicles Drive**, on 28/08/2024 organized by Bharath Institute of Higher Education and Research (BIHER).

Dr. N. B. Muthuselvan delivered a Guest Lecture titled **Renewable Energy, Electric Vehicle Charging, and Grid Integration: An Introduction**, on 13/08/2024 organized by Sri Sai Ram Institute of Technology, Chennai.

Dr. M. Balaji served as academic expert in Critical Design Review (PDR) committee constituted by CVRDE, Chennai to review the development of **Dual Voltage Auxiliary Power unit** on 23/09/2024.

Dr. K. Murugesan participated as a **guest of Honor** in **Kalvithi Thiruvizha** organized by Alumni association of Mangalangkizhar Government Boys Higher Secondary School, Guruvarajpet, Arakkonam District, on 02-09-2024 and addressed the gathering and distributed the prizes to students and teachers.

2. Research Activity

Jeyapradha, Dr. V Rajini, Gayathri, "**Control Design and Optimization of Magnetics in BIFRED Converter"** in International Journal of Electrical Systems June 2024, Volume 20, ISSN 1112-5209, DOI https://journal.esrgroup.org/jes/, Impact factor 0.7 indexed in WOS/TR/SD.

Ramachandran, N., Dr.R.Seyezhai, Balachandran, P. K., & Senjyu, T, "**A Novel 21-Level Asymmetric Multilevel Inverter with Reduced Switches for Solar PV Systems"** in

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

International Journal Electric Power Components and Systems, Taylor and Francis July 2024, Volume 1, pp 45311, ISSN: 1532-5008,DOI https://doi.org/10.1080/15325008.2024.2330990, Impact factor 1.5 indexed in WOS/TR/SD.

B. Lakshmi Praba, **V. Vidhu Priya**, and **R. Seyezhai**, **"Design, Simulation and Analysis of DC-DC Cuk LED Drivers"** in International Journal Lecture Notes in Electrical Engineering,Springer July 2024, Volume 1139, pp 221-236, ISSN:18761100, DOI https://doi.org/10.1007/978-981-99-9439-7_16, Impact factor 0.15 indexed in Scopus.

E. Fantin Irudaya Raj, N. Pon Subathira, S. Darwin, **"Application of cloud robotics in autonomous vehicles"** in International Journal in book titled: Shaping the Future of Automation With Cloud-Enhanced Robotics April 2024, Volume, pp 359-379, DOI 10.4018/979-8-3693-1914-7.ch020, indexed in Scopus.

E. Fantin Irudaya Raj, Balaji Mahadevan, T. Lurthu Pushparaj, D. Thiyaharajan, **"Traffic Management in Smart Cities Using Unmanned Aerial Vehicles"** in International Journal in book titled: Drone Applications for Industry 5.0 June 2024, pp 218-247, DOI 10.4018/979-8-3693-2093-8.ch013, indexed in Scopus.

S. Vidhya, **M. Balaji** and **V. Kamaraj**, **"An Optimized Hybrid Deep Learning Model for Appliance Energy Prediction in Smart Homes"** in International Journal Journal of Engineering Science and Technology Review June 2024, Volume 17, pp 151-158 ISSN 1791-2377, DOI 10.25103/jestr.173.18, Impact factor 0.17 indexed in Scopus.

M. Senthil Kumaran, **K. Murugesan**, **R. Leo**, **"Revolutionizing Industrial Efficiency using the Predictive Maintenance Empowered by IoT Technologies"** in International Journal Journal of Electrical Systems July 2024, Volume 20, pp 2913-2923, ISSN 1112-5209, DOI , Impact factor 0.17 indexed in WOS/TR/SD.

Dr.G. R. Venkatakrishnan, **"DNN-Sparse Bayesian Learning (SBL) based Sparse Signal Recovery in Compressed Sensing"** in International Journal Nanotechnology Perceptions July 2024, Volume 20, pp 555, ISSN 1660 - 6795, DOI , Impact factor 0.4 indexed in Scopus.

R. Arun, R. Muniraj, N. Karuppiah, B. Praveen Kumar, K. Muruga Perumal, **"Automated approach to design predictive PI control scheme for gain margin specification"** in International Journal of Systems Assurance Engineering and Management June 2024, Volume 15, pp 2230, ISSN 0976-4348, DOI 10.1007/s13198-02302238-y, Impact factor 1.6 indexed in WOS/TR/SD.

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SUCCESS THROUGH INNOVATION

J Anto Sheeba and **R.Seyezhai**," **"Enhancement of Power Factor Correction in an AC-DC converter with an integrated BOOST-FLYBACK circuit"** in International Journal Rev. Roum. Sci. Techn.– Électrotechn. et Énerg, August 2024, Volume 69, pp 213-218, ISSN 0035-4066, DOI https://doi.org/10.59277/RRST-EE.2024.2.16, Impact factor 0.88 indexed in WOS/TR/SD.

Anjana Ethirajan and **R. Ramaprabha,** ,"**Review on Hybrid Based EV Charging Stations"** in International Journal, AIP Conference Proceedings, ISBN 978-0-7354-4972-5 August 2024, pp 3044, Article No.: 030001, ISSN 0094-243x, DOI https://doi.org/10.1063/5.0208830, Impact factor 0.15 indexed in Scopus.

M.Karthika and M.Balaji, **"Design and comparative analysis of three-phase conventional and E-core stator hybrid reluctance motor for electric three-wheeler"** in International Journal, Journal of Power Electronics August 2024, Volume 24, pp 1262-1272, ISSN 1598-2092, DOI https://doi.org/10.1007/s43236-02400796-3, Impact factor 0.39 indexed in WOS/TR/SD.

Karthika M , Balaji M , Fantin Irudaya Raj, Appadurai M, **"Thermal investigation of 12/10 switched reluctance motor adopting different casing fins and materials for e-vehicle application"** in International Journal, MATERIA-RIO DE JANEIRO August 2024, Volume 29, pp 2024-2044, ISSN 1517-7076, DOI https://doi.org/10.1590/1517-7076 RMAT-2024-0244, Impact factor 0.17 indexed in WOS/TR/SD.

Pa, **Hari Krishna Achuthan**, **Madhusudan S**, **Karuppiah N**, **Praveen Kumar B**, **BaseemKhan**, "**Application of Covariance Matrix Adaptation-Evolutionary Strategy for Modified Constrained Optimal Power Flow Problem Incorporating Valve Point and Emission Effect"** in International Journal, International Transactions on Electrical Energy Systems, Wiley July 2024, Article ID 8933933, 19 pages, ISSN 2050-7038, DOI https://doi.org/10.1155/2024/8933933, Impact factor 2.639 indexed in WOS/TR/SD.

R. Suguna, S. Tamil Selvi, K. Mohana Sundaram, Pradeep Katta , "**A non-isolated PFC bridgeless SEPIC-Cuk converter with adaptive PI controller for induction motor"** in International Journal of Applied Power Engineering August 2023, Volume 13, No. 2, June 2024, ISSN 2252-8792, DOI 10.11591/ijape.v13.i2.pp282-293, indexed in Scopus.

S. Ragul, S. Tamilselvi, P. Elamurugan and S. Bharathidasan, "**Enhancing Photovoltaic System Resilience: A Logistic Regression Approach to Fault Diagnosis"** in International Journal IEEE Xplore July 2024, DOIhttps://doi.org/10.1109/RAEEUCCI61380.2024.10547898, indexed in Scopus.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

S. Tamil Selvi, **Navneet Krishna**, **G. Jeevanantham** and **R. Abhishek**, **"Adsorptive Removal of Impurities from Transformer oil using Activated carbon"** in International Journal IEEE Xplore January 2024, ISSN , DOI https://doi.org/10.1109/ICAECT60202.2024.10469059, indexed in Scopus.

K K Uthira Ramya Bala, **S.Krishnaveni**, "**A simplified mathematical analysis of bidirectional dual active bridge DC-DC converter for electric vehicle**" in AIP Conference proceeding August 2024, ISSN 0094-243X, DOI:https://doi.org/10.1063/5.0208702, Impact factor 0.4 indexed in Scopus.

Krishnaveni S, Marutham Rathna Valli M , Keerthana S and **Kaviyamalar A.D, Dhinesh S**, **"Power consumption alert through SMS to manage the EB tariff slab"** in AIP Conference proceeding August 2024, Volume 3044, pp 080001, ISSN 0094-243X,DOI https://doi.org/10.1063/5.0210047, Impact factor 0.4 indexed in Scopus.

R. Suja, **K.Murugesan**, **R.Vignesh**, **Manjunatha, "Analysis of Solar PV Array Integration with DC-DC Converter and Battery-Integrated UPQC for Microgrid Power Quality Enhancement"** in International Journal SSRG International Journal of Electrical and Electronics Engineering August 2024, Volume 11, pp 309 to 322, ISSN 2348-8379, DOI https://doi.org/10.14445/23488379/IJEEE-V11I8P127, indexed in Scopus.

Jayaparvathy R., **Daphin Lilda S**, **Sheeba Angel A**, **Priyanka B.N**, "**Soil moisture prediction based on integrating the CEEMDAN decomposition technique with LSTM in the proximity of Prosopis Juliflora"** in International Journal, Journal of Hydrology, August 2024, Volume , pp 1 to 19, DOI https://doi.org/10.1016/j.jhydrol.2024.131777, indexed in WOS/TR/SD.

3. Conference Activity

R.Seyezhai & **B.LakshmiPrabha, "Comprehensive Study and Analysis of SEPIC Based Power Converter Topologies for Solid State Lighting Applications"** in 10th International Conference on Electrical Energy Systems, ICEES 2024, organized by the Department of EEE, SSN College of Engineering, Kalavakkam-603110; Universiti Malaya, technically sponsored by IEEE conducted by SSN College of Engineering in Physical Mode on 23/08/2024.

Solai Manohar S, **Senthil Kumaran M**, **Murugesan K** and **Darwin Jose Raju, "Predictive error switching strategy for multilevel matrix converter"** in 5th IEEE India Council International Subsections Conference (INDISCON 2024) hosted conducted by Punjab Engineering College, Chandigarh (Deemed to be University) in Hotel Shivalik view, Sector 17, Chandigarh, Aadab Ar on 23/08/2024.

K.K.Nagarajan & **M. Ramya, "3D Simulation Study of Radiation- induced Single Event Transients in Reconfigurable ringFETs with Inner Drain Arrangement"** in 10th International Conference on Electrical Energy Systems , ICEES 2024, organized by

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

the Department of EEE, SSN College of Engineering, Kalavakkam-603110 & Universiti Malaya, technically sponsored by IEEE conducted by SSN College of Engineering in Physical Mode on 23/08/2024.

Dr Leo Raju, "IOT and App based Novel Robust Smart Energy Management and Demand side Management of Microgrids" in ICEES 2024 conducted by IEEE in SSN College of Engineering, Chennai on 22/08/2024.

Dr Leo Raju, "Energy Conservation in Educational Buildings using IOT" in ICEES2024 conducted by IEEE in SSN College of Engineering, Chennai on 24/08/2024.

Dr Leo Raju, "Ecosaver : A Holistic Mobile Solution for Water and Electricity Resource Management" in ICEES2024 conducted by IEEE in SSN College of Engineering, Chennai on 24/08/2024.

Sushree Samikshya Pattanaik, Ashwin Kumar Sahoo, Rajesh Panda, "Comparison of Solar Power Forecasting Using RNN-Dense and LSTM-Dense Neural Network" in Evolutionary Manufacturing, Design and Operational Practices for Resource and Environmental Sustainability conducted by Wiley in Bhubaneswar, India on 15/08/2024.

Sushree Samikshya Pattanaik, Ashwin Kumar Sahoo, Rajesh Panda, Biswaranjan Sahoo, Prabhat Kumar nayak, Kaushik Pritam, Rishiraj Mitra, "Python Based Machine Learning for Predictive Maintenance in Wind Farms" in 10th International Conference on Electrical Energy Systems (ICEES) 2024 conducted by IEEE in Chennai, India on 22/08/2024.

Dr. R. Deepalaxmi, Dr. C. Vaithilingam, Ayisha Sameera, Janani Sivrupan, "Design and Implementation of Solar Powered Wireless Power Transfer Circuit" in Sixth International Conference on Electrical and Computer Technologies (ICAECT 2024) conducted by Sengunthar Engineering College, Erode.

4.Patent info

Dr. V. Rajini, along with students **C Manoj Shyam, Aman Meer, Amaan Panjiyar,** applied for a National Patent titled **"Gaze-Enabled Intelligence: Revolutionizing Everyday Interaction"** on 30.07.2024.

5.FDP/Events attended

Dr.R. Leo attended 10 Day Faculty Development Program, **"Artificial Intelligence, Machine Learning and Deep Learning (AIMLDL)"** on 08/07/2024 organized by E & ICT Academy, NIT Warangal at Telengana.

Dr. G.R. Venkatakrishnan attended 5 Day Faculty Development Program, **"Recent Trends in Power Electronics and Drives for Electric Vehicles (RTPED-EV 2024)"** on 12/07/2024 organized by NIT Patna at Online ith MathWorks, DesignTech Systems Pvt. Ltd at Pune.

Dr. Rajesh Panda attended 5 Day Faculty Development Program, **"Deep Dive into Artificial Intelligence (AI) and Its Application Workflows Using MATLAB"** on 15/07/2024 organized by Department of E&TC, Bharati Vidyapeeth (Deemed to be

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

University) College of Engineering Pune in association with MathWorks, DesignTech Systems Pvt. Ltd at Pune.

Dr. Rajesh Panda attended 5 Day Faculty Development Program, **"Recent advancements in Electric Vehicle Technology 2.0"** on 26/08/2024 organized by Department of Electrical & Electronics Engineering, Basavarajeswari Group of Institutions Ballari Institute of Technology & Management at Ballari, Karnataka.

Dr. Rajasi Mandal attended 1 Day Webinar **"Recent Trends on Power Electronics & Power Engineering Systems"** on 21/09/2024 organized by SSN-IEEE PES Student Chapter & IEEE-PES Madras Chapter at online mode (Google Meet), Speaker: Dr. S. Paramasivam, IEEE, Senior Member, General Manager, R&D, ESAB India Limited, Chennai.

6.Events conducted

Workshop

Dr.R.Seyezhai & **Mr.J.Dheepan** organized a Training Program, **"7-day training program on New Product Development Using NX"** organized by SSNiFound in association with TANSAM at offline Event on 06/08/2024.

Dr.R.Seyezhai, & Student Office-bearers of IEEE-PELS organized a Debate titled **Tete-a-Tete IEEE-PELS, Student Chapter,** SSNCE in association with EEE department at EEE Seminar Hall on 30/08/2024.

Dr. V. Rajini, **Dr. R. Seyezhai**, **Dr. R. Ramaprabha**, **Dr. M. Balaji**, organized a Workshop - EEE & SSN-IIC titled **Innovative New Product Design using Design Thinking Approach** at EEE seminar hall on 29/08/2024.

Dr. V. Rajini, Dr. R. Seyezhai, Dr. R. Ramaprabha, Dr. M. Balaji, organized a Independance day celebration Debate - EEE & SSN-IIC titled **Will Technology Drive India's Path to Independence and Self-Reliance** at III Year B Classroom on 14/08/2024.

7.Industry Collaboration

Dr. R. Seyezhai received the first instalment of **Rs.1,05,000/-** for the consultancy projec titled **"Performance Assessment and Degradation Analysis of Solar PV Modules"** from JP Solar, Chennai on 07/07/2024.

8.International Conference

The Department of Electrical and Electronics Engineering has organized its 10th International Conference on Electrical Energy Systems (ICEES – 2024) on August 22 – 24, 2024 co-hosted by **University Malaya**, technically **co-sponsored by IEEE Madras Section**. **Dr. Jeyraj Selvaraj** from University Malaya was the chief guest for the inaugural function held at EEE seminar Hall.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

10.Other items

Dr. V. Rajini presented the first-year curriculum and syllabi of R2024 in the first year BOS meeting on 13/7/24. The academic expert for EEE was **Dr.K. Udhayakumar**. Prof/EEE, Anna university.

Dr. V. Rajini as the **chairperson of 5th BOS meeting**, during July 2024, presented the curriculum of R2024 from semester III to semester VIII.The BOS members were Dr Christopher Asir Rajan, PTU, Dr Senthilkumar, NIIT, Dr. Sreedevi, VIT, Mr. Balakrishna Singam, Vestas, Mr. Bharat kumar, Collins Aerospace ltd.

Dr. V. Rajini, presented the **finalized curriculum of R2024** in the academic council meeting on 26th September 2024.

NAAC audit was conducted for EEE department by **NAAC peer team** on 26th and 27th September 2024.

Dr.V. Rajini evaluated a thesis, **"Load Modelling and Conservation of Voltage Reduction Analysis for Malaysian Residential Appliances and the Distribution Network Feeders"** submitted to University of Malaya and submitted the evaluation report in July 2024.

Dr. V. Rajini conducted a department meeting to finalize the minor stream for R2024. **Green energy technologies** was decided as the minor stream for EEE in July 2024.

Dr. R, Seyezhai, has taken a additional role as Incharge for faculty Incubation at SSNifound, Kalavakkam in July 2024.

Ms. Rashmeta Sai (I Year B. E.- Electrical Engineering), National University of Singapore, Singapore successfully completed her internship under "Research Internship Scheme - June 2024, SSNCE" under the guidance of **Dr. R. Ramaprabha**. The title of the work is **"Review on the Application of Machine Learning Classifiers in larger PV arrays"** and the work was done for a duration of four weeks from May 24, 2024 to June 21, 2024.

Dr R. Leo reviewed two international Journal papers (WoS), one in **Taylor and Francis** and the other in **Frontiers in Energy Research, section Smart Grids** in July 2024.

Dr. Rajesh Panda on 05/07/2024 reviewed 1 paper in the International Journal of System Assurance Engineering and Management, Springer.

Dr. P. Saravanan attended Board of Studies Meeting (BoS) meeting of Department of EEE, Annamacharya Institute of Technology and Sciences (Autonomous), Tirupati in the capacity of **Academic Expert Member** on 20.07.2024.

Dr.V.Rajini and **Dr M Senthil Kumaran** interacted with **Rane NSK team** about the consultancy work in August 2024.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

Dr.R.Seyezhai, completed the course on **Challenges and Opportunities; Electric Powertrain Development**, conducted by ISIE India in online mode in August 2024.

Dr.R.Seyezhai, completed the course on **Introduction to Electric Vehicle Homologation** conducted by ISIE India in online mode in August 2024.

Dr.R.Seyezhai, had a review meeting with **Mr.Giridharan, CEO, SSN iFound and Mr.Bonifice**, SSN iFound regarding the progress of her start-up, **Shrimitha Energy Solutions Private Limited**. and discussed about the **industry connects for the LED driver circuits** in August 2024.

Dr.R.Seyezhai, reviewed the paper for the **IEEE International Conference SILICON 2024**, being organized by NIT, Agartala during Nov.15-17, 2024.

Dr.R.Seyezhai, attended the meeting with **Dr.Madhumitha, N-ergy convened by CEO,** SSN iFound regarding the possible colloboration with SSN iFound in August 2024.

Dr. R.Seyezhai, attended the meeting along with Mr.Bonifice, SSN iFound & **Dr.Vimal SamSingh**, ASSP/Mech regarding the **Product Development for start-ups** and cohort program in August 2024.

Dr.R.Seyezhai, & Dr. R.Ramaprabha, attended the Demo for the **Solar I-V curve tracer** in online in August 2024.

Dr. R. Ramaprabha along with **Dr. S. Radha (Vice Principal, SSNCE)** attended the release and Award Ceremony for India Rankings 2024 (NIRF) by Hon'ble Minister of Education, **Shri Dharmendra Pradhan** at Auditorium 1, Bharat Mandapam, ITPO Gate No. 7, New Delhi-110001 on 12th August 2024.

Dr. R. Ramaprabha attended the project presentation review meeting of **DST-HFC** in the **capacity of Co-PI** on Aug 14 (at Chemical department) and Aug 18 (through online) with IIT professors. The project was presented by **PI – Dr. R. Anantharaj** on Aug 21, 2024 at Bangalore.

Dr. R. Ramaprabha presented the **NIRF analysis to the college president** on Aug 22 in continuation of the NIRF2024 announcement on Aug 12, 2024 along with NIRF team.

Dr R.Leo reviewed two international Journal papers(WoS), one in **Renewable Energy Focus** and the other in **Frontiers in Energy Research, section Smart Grids** in August 2024.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

Dr. Rajesh Panda on 22/08/2024 **acted as Metareviewer and Reviewer** for 10th International Conference on Electrical Energy System (ICEES) 2024 organized by Department of Electrical & Electronics Engineering, SSN College of Engineering, Chennai, India.

Dr. Rajasi Mandal on 13/08/2024 attended and **Won (First) the Fun Quiz - SSN/SNU Staff Cultural Event.**

A team comprises of **S. Thirukumaran, J. Rohit Sharavan & S. R. Veeresh** applied project titled **"Smart EV Charging Station Locator using IoT"** to Tamil Nadu State Council for Science & Technology under Student Project Proposal 2024-2025 on 29/08/2024 under the guidance of **Dr.R.Ramaprabha.**

Dr. Rajesh Panda submitted reviewer comment for the Journal IEEE Access on 03/09/2024.

Dr. Sajjan Kumar acted as Jury member for internal SIH 2024 on 06/09/2024.

Dr. Rajesh Panda, reviewed 1 paper in Journal IEEE Access on 21/09/2024.

Dr. Raman Balireddy, conducted GATE-JAM Outreach Program at Mini-Auditorium by Prof. Shivanagendra from IIT Madras on 06/09/2024.

Dr. R. Jayaparvathy, Professor/EEE presented project progress review on **Deep Ocean Mission**, to Secretary, MoES, Scientists from NIOT (Review Committee Members) on 5th July 2024.

Dr. R. Jayaparvathy, Professor/EEE had Discussion with Principal Chief Conservator of Forests and Director, TBGPCCR, of Forest Department regarding **Testing and Demonstration of Developed system** on 25th July 2024.

11.Scholar related

Dr. R. Jayaparvathy conducted Synopsis meeting in SSN College of Engineering as a Supervisor for the research scholar V. Ramya on 02/08/2024.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

WORKSHOP ON "INNOVATIVE NEW PRODUCT DESIGN USING DESIGN THINKING APPROACH"

The department of Electrical and Electronics Engineering in association with Institution Innovation Council (IIC) organised a workshop on **"Innovative New Product Design using Design Thinking Approach"** on 29.08.2024. **Dr. S. Suresh Kumar**, 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 objective of the workshop was to impart the necessary skills required to create innovative products by applying the principles of Design Thinking. The speaker highlighted how design thinking offers a structured approach for solving real-world problems by understanding user requirements and developing feasible solutions.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

The significance of innovation, along with creativity and collaboration, in developing new products was emphasized. The session oriented the students to apply design thinking concepts to create products that meet market demands and satisfy user requirements. The speaker motivated the students to pursue entrepreneurial ventures.

Faculty Coordinators

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

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

NON-TEACHING STAFF CORNER

1. Alagar Raju, Lab Instructor, conducted a **power supply service in the department of Mechanical Engineering** in July 2024, replacing the IC and power cord wires, bringing it into good condition.

2. Durgai Vadivu M, Lab Assistant, conducted the **calibration of testing and measuring instruments in the Electrical Machines Lab** in July 2024.The calibrated instruments are:

- AC Ammeter (0-2) A
- AC Ammeter (0-20) A
- AC Voltmeter (0-60) V
- AC Voltmeter (0-300) V
- DC Voltmeter (0-300) V
- DC Ammeter (0-10) A
- Wattmeter (LPF)
- Wattmeter (UPF)
- Digital Multimeter(Scientific SM7023)

3. Nagaraju P, **Assistant Lab Instructor,** completed the **servicing and repair of various lab equipment across five laboratories**:

- Design Thinking and Engineering Practices Lab
- Linear Integrated Circuits Lab
- Measurement and Instruments Lab
- Electric Circuits Lab
- Machine-II Lab.

The issues ranged from faulty digital multimeters, function generators, and CROs, to damaged regulated power supplies and ammeters. All equipment malfunctions were addressed and rectified during May-July 2024.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

TEACHERS' DAY CELEBRATION

On 5th September 2024, SSN Institutions and Shiv Nadar University celebrated Teachers' Day with a heartfelt event honouring the dedication and contributions of educators. The atmosphere was filled with gratitude and appreciation, highlighting the significant role that teachers play in shaping the future of students and society.

The celebration, graced by distinguished guests and the institution's diverse community, encapsulated the spirit of gratitude that this special day embodies. **SSN Institutions President Kala Vijayakumar** took the center stage during the event, extending heartfelt appreciation to all teachers for their invaluable dedication, skill, and guidance.

The prestigious Teaching Excellence Awards were among the celebration's highlights. These awards recognized the exceptional contributions of many outstanding teachers at SSN and Shiv Nadar University.

FACULTY HIGHLIGHTS

SUCCESS THROUGH INNOVATION

Dr. R. Ramaprabha, from Electrical and Electronics Engineering (EEE) Department, received the award for her tireless efforts in course and program enhancement.

Additionally, **Dr. R. Seyezhai,** a Professional in the her commitment to excellence exemplifies the dedication that defines SSN's teaching faculty.

In conclusion, the Teachers' Day celebration at Shiv Nadar University, particularly the Teaching Excellence Award presentation, was a stirring tribute to SSN's exceptional educators. It reaffirmed the institution's commitment to academic excellence and the invaluable role of teachers in shaping the learning journey and futures of countless students.

This celebration served as a touching reminder of the profound impact educators have on the lives of their pupils, leaving an indelible mark on their journeys of growth and knowledge. The celebration concluded on a high note, with a call to action for all educators to continue striving for excellence in their teaching practices. It served as a reminder of the importance of recognizing and appreciating the tireless efforts of teachers, encouraging a culture of respect and admiration for the profession.

INVENTE CHRONICLES

Pioneering the Future

The much-awaited annual technical event **INVENTE 2024** kicked off with energy and enthusiasm on 27 and 28 September 2024 at our college. The unique aspect of INVENTE is that it is fully organized by students, making it a platform where we can learn technology, teamwork, and creativity, which attracts other college students to participate and grab prizes. The theme for INVENTE was **“Eco-volution”**, which focuses on evolving technology for a sustainable future. The event featured various hackathons and workshops, all organized with the motto **"Imagine, Create, and Inspire."**

The day began with the inaugural ceremony, presided over by The vice Chancellor of SNUC Mr. Bhattacharya, who warmly addressed the students from other colleges. In his speech, he acknowledged the hard work of the student organizers and welcomed all participants, encouraging them to make the most of the event.

This year, the highlight of the inauguration was the presence of our Chief Guest, **Mr. Sathyanandan Mahadevan**, Vice President, Power Business Solutions of Ashok Leyland. His insightful speech resonated with all present, as he shared valuable insights on the evolution of hydrogen fueled vehicles and its mechanism through a presentation. He launched our Invente magazine named **“Tech-Vibe”** and further met all department association presidents.

INVENTE CHRONICLES

PIONEERING THE FUTURE

After the inauguration, the events unfolded, featuring a wide variety of technical and non-tech activities in our department.

Technical events:

- **Ideate**, a paper presentation competition where students presented innovative ideas and solutions to real-world problems, demonstrating their technical prowess and creativity.

- **El Casino**, a thrilling event with electric puzzles and circuit challenges, pushed participants to their limits, testing their problem solving and circuit design skills under pressure.

- **Ohm-My,** an ADZAP competition where participants were tasked with advertising an electrical product. This event tested both their technical understanding and marketing creativity.

- **LockedIn,** an infusion of tech and fun where the escapees race against time to solve puzzles and find clues to save humans from termination.

INVENTE CHRONICLES

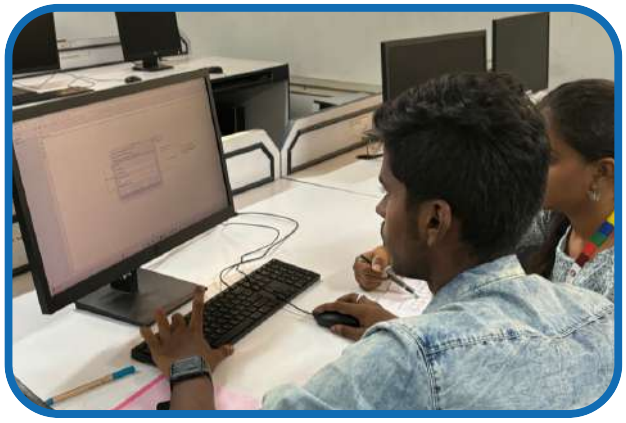
PIONEERING THE FUTURE

- **Electrothon**, a project presentation event where students showcased many innovative projects that have high scopes on future.

- **Circuitx**, an event exclusively for solving circuits physically as well as using simulation apps like MATLAB Simulink, etc.

- **Trace and Race**, a unique blend of strategy and technical knowledge where participants answered technical questions while playing life-sized games of Snakes and Ladders, Jenga, and Seven Stones, where teams built tower-like structures using blocks.

- **Drop The Mic**, a shipwreck competition where participants were tasked with talking about an electric product or a component as in why they require the life jacket.



Non-technical events:

Tentukotta proved to be an absolute hit among movie lovers. In this engaging game, participants had to guess movies based on famous dialogues and identify titles from songs played during the event. Another standout event was **Transfer Fiesta**, which drew in football enthusiasts with its thrilling mix of a quiz and a football team auction. Participants showcased their knowledge of the sport, answering challenging questions and participating in the auction, where they had the chance to bid on their favorite football teams.

INVENTE CHRONICLES

PIONEERING THE FUTURE

This technical fest was further enhanced by the presence of a special guest, **Ms. Radhaselvi Venkatesan,** who is also a sponsor for the event from Life Tech Equipments Private Limited. She addressed the students, expressing her appreciation for the hard work and dedication shown by the student organizers. Ms. Venkatesan, along with **HOD Dr. Rajini Mam**, took the time to facilitate the winners of various events, celebrating their achievements by presenting them with awards and cash prizes. Overall, INVENTE ‘24 was successfully conducted, leaving a lasting impression on all attendees and setting the stage for future editions.

SESSION ON INSTITUTION & INNOVATION COUNCIL OBJECTIVES, STRUCTURE, OPERATION FOR IIC INSTITUTIONS

On August 5, 2024, an Orientation-cum-Refreshers' Session was held to discuss the Institution's Innovation Council (IIC), focusing on its objectives, structure, and operations within educational institutions. Organized by the Ministry of Education's Innovation Cell, this session aimed to equip undergraduate students with a comprehensive understanding of the IIC and its significance in fostering innovation and entrepreneurship.

The session was conducted by **Mr. Dipan Sahu, the Assistant Innovation Director at the Ministry of Education's Innovation Cell** and AICTE. The event attracted an enthusiastic participation from 120 undergraduate students, eager to learn about the innovative initiatives promoted by the Ministry.

Mr. Sahu began with an overview of the Institution's Innovation Council, explaining its foundational goals to promote innovation and entrepreneurship among students, including nurturing a culture of innovation in institutions, facilitating collaboration among students and industry, and creating awareness about various funding opportunities. The speaker outlined the operational framework of IICs in educational institutions, emphasizing the roles and responsibilities of different stakeholders involved in promoting innovation. Students were encouraged to engage in a Q&A segment, where they posed questions regarding the practical implementation of IIC initiatives and how they can contribute as active participants.

Mr. Sahu concluded with insights on upcoming opportunities for students to participate in innovation challenges and programs that can enhance their skills and employability.

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INDEPENDENCE DAY CELEBRATION DEBATE ON "WILL TECHNOLOGY DRIVE INDIA'S PATH TO INDEPENDENCE AND SELF-RELIANCE"

The department of Electrical and Electronics Engineering in association with Institution Innovation Council (IIC) organised Independence Day Celebrations. A debate was conducted on the topic "Will Technology Drive India's Path to Independence and Self-Reliance" on August 14, 2024. The following third year students who participated in the debate were Mohit Sandeep, Prathukshaa, Vishwojeet, Ramanujaa, Yuvaprasath, Yhokesh, Sriram, Nehasri, Monish Kumar, Sharvesh, Poojashri & Sreyasi

Moderators: Dr. R. Seyezhai, Dr. R. Ramaprabha and Dr. M. Balaji

They put forward the following points with respect to the topic.

- Economic growth due to technological advancements in agricultural and manufacturing sector.
- Digital initiatives like UPI.
- Advancements in education sector, especially during COVID times.
- Advancements in renewable energy and electric vehicles.
- Internship opportunities, innovation and start ups.

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Points against the topic

- Unemployment because of the skill gaps among the workforce.
- Might mislead youth like over dependent on mobile phones
- Resource Constraints-Not everyone is accessible to the technology
- Exploitation of technology in a wrong way

Conclusion

The session concluded with the opinion that the technological drive is significant to independence while the challenges associated with it like infrastructure gaps, skill development, reducing dependence on foreign technology, and addressing the digital divide, needs to be addressed to make itself reliant.

REPORT ON TETE A TETE: A TECHNICAL DEBATE COMPETITION

-Hiba Tasneem, 2nd year

TETE A TETE, a technical debate event, held on August 30, 2024, was a remarkable event that showcased the oratory skills and intellectual prowess of students. This event was held at EEE Seminar Hall, by IEEE Power Electronics Society (**IEEE PELS)**. The competition aimed to foster critical thinking, public speaking skills, and the ability to articulate thoughts and opinions effectively. The competition saw participation from several teams with students belonging to different departments, each team consisting of one to four students.

The debate competition was structured in two rounds: the preliminary round and the finals. Each round had a specific topic that was disclosed to the participants before the commencement of the debate. The teams were given 2-3 minutes to prepare for their stance on the topic. The topics ranged from ethical dilemmas to technological advancements. The preliminary round featured topics such as "Should 3D printing organs be legalised?". Our team as well as the opponent team, presented our arguments with enthusiasm and conviction.

Finals:

The final round was the highlight of the competition, with the topic being "Should governments be allowed to install CCTV cameras in private spaces, including bedrooms?" The two finalist teams engaged in a fierce battle of words. The debates were intense, with each team striving to outdo the other with well-structured arguments and rebuttals.

Conclusion:

The Debate Competition was a resounding success, providing a platform for young minds to express their views on important technical and ethical issues. It was an enriching experience for both the participants and the audience, highlighting the importance of debate in developing critical thinking and effective communication skills. The competition not only celebrated the art of debating but also encouraged students to engage in meaningful discussions, fostering a spirit of inquiry and intellectual growth. It was a day filled with learning, excitement, and inspiration, leaving a lasting impression on everyone present.

REPORT ON FORBES 30 UNDER 30 TALK

-Dhanushram K, 3rd year & Krtin Narayan, 2nd year

Avinash Ramanathan, an Electrical and Electronics Engineering (EEE) alumnus of 2015 batch of SSN College, who was honoured as “Forbes 30 under 30”, delivered an insightful talk on 2nd September 2024, offering a fresh perspective on the world of venture capital (VC), startups, and how this ecosystem has evolved over time. This session was organized by the **IEEE Power Energy Society** of EEE Department. One of his key messages, encapsulated in the phrase "**The days are long, but decades are short**," highlighted how while individual days may seem stretched, the impact of a decade can be significant, especially in the world of entrepreneurship and investment.

Avinash drew an analogy between sports and academics, stating that while sports offer a broader, more dynamic view of challenges, academics can sometimes present a more focused, yet limited perspective. He emphasized how this broader mindset is critical when entering the startup ecosystem. He also shed light on the changes in VC trends pre- and post-2018. Before 2018, most venture capitalists tended to favor software startups that could scale rapidly, often overlooking hardware-based startups due to the high initial capital requirements. Today, however, there are VCs who are specifically dedicated to investing in hardware, recognizing its long-term potential.

A crucial part of Avinash's talk focused on the VC process, where he referred to VCs as "**glorified salesmen**". He made it clear thata VC funding does not guarantee a startup's success. Instead, VCs operate by securing funds from limited partners, which they then invest in promising startups. The startups eventually return profits from successful exits, and the VCs, in turn, offer returns to their limited partners after deducting their share, or “carry”. The goal for most VCs is to achieve a return of 3x to 10x over a 10-year period. For example, he shared how an SSN VC fund with $100 million would aim to return the investment within 10 years by investing in 20 companies, seeking a return of 3x to 5x. He also reflected on his decision not to pursue an MBA, as he had already built a strong network, which he saw as the most valuable part of an MBA degree.

Finally, Avinash addressed why many solutions never make it to market – they are often too niche, not scalable, or remain at the laboratory level. He also touched on the Indian market's complexities. This session was very interactive and students asked many questions related to VC, and he was so glad to see those faces.

REPORT ON FORBES 30 UNDER 30 TALK

-V V Akshaya , 2nd year

On September 2, 2024, the IEEE PES Student Chapter of SSN hosted an inspiring alumni talk with Avinash Ramanathan, a Forbes 30 Under 30 honoree, and prominent venture capitalist at Kalaari Capital. An SSN alumnus from the 2011-2015 batch, Avinash was a tennis player who received a sports scholarship during his studies. He captivated the student audience with his journey from SSN to the forefront of venture capitalism.

Avinash recounted how his early passion for trade, sparked by his grandmother's involvement in financial activities, like visiting the exchange center, led him to develop a deep interest in money matters. This eventually inspired him to found the SSN Wall Street Club, a platform that honed his financial and leadership skills while in college.

Throughout his talk, Avinash shared the key principles that have guided his success: asymmetric betting, developing optionality, escaping competition, delayed gratification, cultivating a network, and taking people along. These insights provided a roadmap for students aspiring to enter the finance and investment sectors. Dr. V. Rajini, HOD, EEE also emphasized the importance of starting early in any field of passion.

REPORT ON SOFT SKILLS SESSION

-Yogitha Lakshmi R, 3rd year

On September 20th, the **IEEE-PES** hosted a highly engaging soft skills workshop, led by Mr. Sathya Jayaraman, Senior Manager at Capgemini. The session focused on importance of confident public speaking and overcoming the fear of failure, both of which distinguish individuals from the crowd. To highlight the significance of quick thinking and confidence, Mr. Sathya invited a volunteer from the audience.

After a brief moment of hesitation, only one person stepped forward, and as a reward for his promptness, Mr. Sathya handed him a 100-rupee note, demonstrating how even a small but bold act can earn a beautiful reward in life .

A key portion of the talk was dedicated to adapting to workplace environments to cultivate social skills. Mr. Sathya emphasized the necessity of a well-crafted resume, sharing insights from his experience in recruitment. He stressed that a resume should ideally be only one page long, showcasing the candidate's most impressive qualities and how they can contribute to the work community.

Equally important, he noted, is the process of self-analysis – being confident in one's strengths while remaining aware of one's weaknesses. Reflecting on his personal journey, Mr. Sathya shared his own story of perseverance, having applied to 33 different companies before landing at his dream job. His message was clear: instead of fixating on conventional approaches, we should shift our perspectives and maintain a positive mindset.

Another valuable lesson Mr. Sathya imparted was the art of asking the right questions at the right time. He presented a thought-provoking scenario: if a self-driving car were about to collide with both a man and a cow, how should it be programmed to react? Rather than rushing to provide an answer, he encouraged the audience to consider both emotional quotient (EQ) and intelligence quotient (IQ) in balance.

By pausing, gathering more information, and asking thoughtful follow-up questions, we can better approach complex problems. Ultimately, the workshop underscored the importance of confidence, resilience, and curiosity in both personal, and professional growth.

INTERNATIONAL CONFERENCE ON ELECTRICAL ENERGY SYSTEMS (ICEES'24), AUGUST 22 – 24, 2024

The department of Electrical and Electronics Engineering has organized its 10th International Conference on Electrical Energy Systems (ICEES – 2024) on August 22 – 24, 2024 co-hosted by University Malaya, Technically co-sponsored by IEEE Madras Section. **Dr. Jeyraj Selvaraj from University Malaya** was the chief guest for the inaugural function held at EEE seminar Hall.

This conference has received an overwhelming response across the globe. The conference has attracted totally 891 papers. These papers are from Industry, Academia and Research Institutes of India, China, Libya, Malaysia, and Turkey. Following a rigorous peer-review process, 277 papers were accepted, and 149 papers were registered for presentation. This three-day conference is scheduled for 15 sessions with a maximum of 10 papers per session. We are pleased to announce that the conference has received a generous sponsorship of 50,000 Rupees from Typhoon HIL, Switzerland to significantly support the event and contribute for the advancement of research in electrical energy systems.

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In addition to the paper presentation sessions, ICEES 2024 has arranged for a distinguished lineup of keynote speakers who shared their expertise on various aspects of electrical energy systems during this conference. The first keynote session was delivered by **Dr. Mohamad Fathi Bin Mohamad Elias from University Malaya.** The second keynote was delivered by Dr. Jeyraj Selvaraj from Universiti Malaya.

On Second day, the first keynote was delivered by **Dr. Surajit Banerjee, former Director at Grid Controller of India**. This was followed by **Dr. Pradip Kumar Sadhu from IIT (ISM) Dhanbad**. The final day, August 24, featured the keynotes from **Mr. Sriram Ramasamy, Manager - Vehicle Features at Ford Global Technology & Business Center**, and **Dr. Mohan Lal Kolhe, Professor at the University of Agder, Norway.**

The success of ICEES 2024 is attributed to the collective efforts of the management, faculty, staff and students of SSN College of Engineering and Universiti Malaya. On behalf of the organizing committee, we extend our heartfelt gratitude for their unwavering support and dedication in organizing this significant event.

PREP TALK ON "INTERNSHIP AND PLACEMENT PREPARATIONS FOR IT COMPANIES"

-Radha Rukmani V, 3rd year

On 4 th October 2024 (Friday), the **Placement Committee (PlaceCom)** of the Department of Electrical and Electronics Engineering (EEE), under the guidance of **Dr.V.Rajini** (Head of the Department – EEE) and **Dr.M.Deveshraj** (Associate Professor– EEE) organized an insightful session on internship and placement preparation for IT companies for 3rd year U.G. EEE students. The session featured talks from students who successfully secured positions at prominent companies such as **Citi Bank, McKinsey, and Comcast**. This event provided insights into their preparation strategies and experiences during the selection process.

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OBJECTIVE:

The primary objective of the session was to guide and motivate the students by sharing real-life experiences of the final year students who have successfully navigated the placement process.

The session aimed to:

- Highlight effective preparation strategies.
- Provide an overview of the selection processes at top IT companies.
- Showcase the importance of project work in securing job offers.

KEY SPEAKERS:

1.Ms. Madhumitha, U.G. Final Year student, EEE
(Company: Citi Bank)

2.Ms. Deepika, U.G. Final Year student, EEE
(Company: Citi Bank)

3.Ms. Smitha, U.G. Final Year student, EEE
(Company: McKinsey)

4.Mr. Deepesh, U.G. Final Year student, EEE
(Company: Comcast)

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SESSION HIGHLIGHTS:

RESUME BUILDING:

The talk emphasized tailoring resumes to highlight relevant skills and projects related to the IT sector. It also stressed the inclusion of internships and practical experiences that align with job roles. Additionally, when applying for a software development role, the importance of knowledge in programming languages, frameworks, and tools mentioned in the job listing was discussed.

PREPARATION STRATEGIES:

The session emphasized the importance of continuous learning, understanding industry trends, and gaining practical experience through projects and certifications. Students were also advised to focus on behavioral interview questions alongside technical assessments. Continuous learning through online courses in programming languages and tools relevant to the IT sector was highlighted. Additionally, participation in hackathons and coding competitions to enhance problem-solving skills was discussed.

SELECTION PROCESS:

The selection processes for IT roles typically involve multiple stages designed to assess a candidate's technical and interpersonal skills. Initially, candidates undergo technical interviews where their knowledge of programming languages, algorithms and problem solving abilities are evaluated. The interview process included questions about teamwork, leadership, and conflict resolution. Each stage is crucial in ensuring that the candidate not only possesses the necessary technical skills but also aligns with the company's values and work culture.

STUDENTS FEEDBACK:

The session received overwhelmingly positive feedback from the students. Here are some of the comments shared by the attendees:

- The session was incredibly insightful. Hearing from students who have successfully navigated the placement process at top companies like Citi Bank, McKinsey, and Comcast was very motivating. Their tips on continuous learning and practical experience were particularly helpful.

  -Vimal, 3rd Year U.G EEE

- I found the emphasis on tailoring resumes to highlight relevant skills and projects very useful. The speakers' experiences with certifications and projects have inspired me to pursue additional learning opportunities to strengthen my skill set.

  -Vishwayishwaran, 3rd Year U.G EEE

CONCLUSION:

The placement session offered students with valuable insights and practical advice for excelling in the IT sector. The speakers' experiences and strategies provided clear guidance on resume building, interview preparation, and the importance of continuous learning. Students left the session feeling inspired and better prepared to pursue their career goals with confidence. Overall, the event was both informative and empowering, setting a positive tone for future placement endeavours.

PREP TALK ON "INTERNSHIP AND PLACEMENT PREPARATIONS FOR CORE COMPANIES"

-Radha Rukmani V, 3rd year

On 19th September 2024 (Thursday), the **Placement Committee** (**PlaceCom**) of the Department of Electrical and Electronics Engineering (EEE), under the guidance of Dr. V. Rajini (Professor and Head of the Department – EEE) and Dr. M. Devesh Raj (Associate professor, Department of EEE), organized an insightful session on internship and placement preparation for core companies for 3rd year UG EEE students. The event aimed to provide students with a broad idea on the recruitment process, skill requirements, and preparation strategies for securing internships in core industries. The event witnessed active participation, with students providing positive feedback on the valuable insights gained.

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OBJECTIVES:

The session aimed at equipping students with essential knowledge and strategies for successfully navigating the recruitment processes of core companies. It focused on:

- Providing an overview of the core industry expectations.
- Guiding students on building a professional resume for core companies.
- Sharing tips on how to excel in technical and HR interviews.
- Familiarizing students with aptitude tests and group discussions.

KEY SPEAKERS:

- Ms. Khavipriya D, U.G. Final Year student, EEE (Company: Wood)
- Mr. Narayanan Sarvesh, U.G. Final Year student, EEE (Company: Wood)
- Mr. Venkatsriram R, U.G. Final Year student, EEE (Company: Wood)
- Ms. N Arthika, U.G. Final Year student, EEE (Company: Ashok Leyland)
- Ms. Tejaswini S, U.G. Final Year student, EEE (Company: Ashok Leyland)
- Ms. Renuka B, U.G. Final Year student, EEE (Company: Ashok Leyland)
- Ms. Anusha P D, U.G. Final Year student, EEE (Placecom 2025)

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SESSION HIGHLIGHTS:

Resume Building: Importance of having a well-structured resume was discussed. Students were advised to have a clear idea about the projects and the skills that are being highlighted in their resume and tips for tailoring the resume for specific job roles were provided.

Aptitude and Technical Test Preparation: Students were guided on preparing for the written rounds, especially focusing on core technical subjects like Power Systems, Control Systems, and Electrical Machines. Strategies for improving problem-solving speed in quantitative aptitude, logical reasoning, and verbal ability were shared.

Interview Preparation: The session covered frequently asked technical questions in interviews related to EEE, and how to approach them. Common technical questions related to core subjects like Electrical Machines, Power Systems, Power electronics, Control Systems, Generation, Transmission and Distribution etc. were discussed.

Internship Opportunities: Importance of internships in gaining practical experience was discussed. Students were guided on how to find and apply for internships and leveraging LinkedIn for opportunities.

STUDENTS FEEDBACK:

The session received overwhelmingly positive feedback from the students. Here are some of the comments shared by the attendees:

- This tech talk session with our seniors was really inspiring, enlightening and motivational. This session was an eye-opener for me in many dimensions. Seniors were polite, friendly, approachable and cleared all our doubts patiently. I would love to attend more such sessions.

  -Yogitha Lakshmi, 3rd Year U.G EEE

- The event was actually so informative and beneficial. I am happy that it was more interactive than I thought what it would be.

  -Sreyasi, 3rd Year U.G EEE

- The session was really informative. It was very helpful as seniors shared their placement experience. It gave me insights on various aspects on how to prepare for the placements.

  -Nehasri, 3rd Year U.G EEE

ORGANIZING TEAM:

- Anusha P D, U.G. Final Year student, EEE (PlaceCom 2025)
- Radha Rukmani V, U.G. 3rd Year student, EEE (PlaceCom 2026)
- Poojashri KM, U.G. 3 rd Year student, EEE (PlaceCom 2026)

CONCLUSION:

The internship and placement preparation talk organized by the department of EEE was a resounding success. It provided students with practical advice and guidance, boosting their confidence for the upcoming internships and placement drives. The positive feedback from students highlights the importance of conducting more such sessions regularly. These initiatives will further support students in preparing themselves for their future careers.

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ONE-DAY TRAINING PROGRAM ON GATE 2025 AND JAM 2025 EXAMINATIONS

The goal of IIT Madras's 2025 awareness session for the **Joint Admission Test for Masters (JAM)** and **Graduate Aptitude Test in Engineering (GATE)** was to give candidates who planned to take these coveted exams a thorough understanding of the material. The goal of the workshop was to help participants make educated decisions concerning their academic and professional futures by providing them with a comprehensive overview of the tests' benefits, structure, and preparation techniques.

An introduction to the GATE 2025 exam, which serves as a prerequisite for postgraduate admissions and jobs in India's public sector, was given at the start of the first session. It underlined the importance of GATE as a benchmark for assessing graduates' knowledge and abilities in science, engineering, technology, and architecture fields.

Report on "Introduction to Gate Driver Circuits" Course

- Mohamed Anas S, 3rd Year

I recently had the opportunity to attend a online course titled "**Introduction to Gate Driver Circuits,"** conducted by our alumni **Nandha Kishore**, who is currently pursuing his **Ph.D. at IIT Delhi.** This two-month course, with sessions held twice a week, was an eye-opener into the fascinating world of Wide Bandgap Devices and the essential gate drive requirements crucial for efficient circuit design. Since this course was an advancement of the curriculum I studied, it was more fascinating. The course delved deeply into the concepts surrounding the switching characteristics of semiconductor devices. We explored the intricacies of turn-on and turn-off losses, vital aspects in determining the performance and efficiency of power electronics. Nandha Kishore introduced us to the Miller Plateau, a critical region during the switching process, shedding light on how it affects the gate voltage and overall circuit behavior.

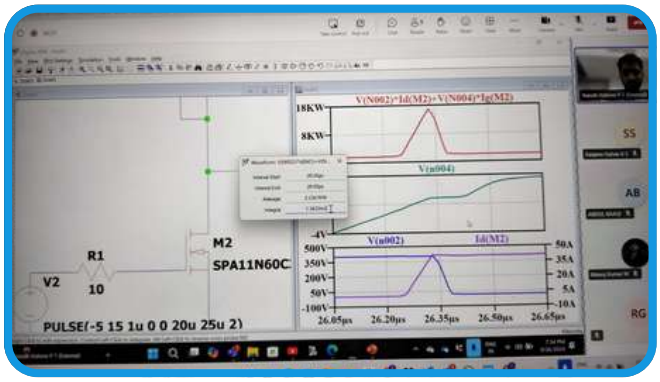
Understanding the dynamics of turn-on and turn-off mechanisms was made clearer by breaking down the entire switching process into its various regions. This allowed us to appreciate the precision required to optimize switching losses and how modern gate driver circuits play a pivotal role in ensuring smoother transitions, especially in high-frequency operations. This was an eye-opener as I was able to know a lot about the devices and their considerations.The focus on Wide Bandgap Devices, such as SiC and GaN, underscored their advantages over traditional silicon-based devices.

EEE PULSE

EMPOWERING EVERY SPARK

These materials offer higher efficiency, greater thermal management, and faster switching speeds, making them ideal for cutting-edge applications like electric vehicles and renewable energy systems. Our discussions on gate drive requirements tied everything together, emphasizing the need for precise control over switching processes to minimize energy losses and enhance device performance.

Overall, the course provided an excellent foundation in the evolving field of power electronics, with a focus on real-world applications and the latest advancements in gate driver technology. We look forward to more such opportunities to learn from our distinguished alumni and stay abreast of emerging technologies. By sharing this knowledge, I hope more students can gain insights into this ever-evolving domain of electronics.



EEE PULSE

EMPOWERING EVERY SPARK

The GATE-JAM 2025 Chairperson, **Prof. Shiva Nagendra S.M.**, provided an explanation of the exam structure, eligibility requirements, and recent modifications, including the addition of new topic papers and altered question forms.The JAM 2025 exam, which is necessary for students pursuing a Master of Science (M.Sc.), Joint M.Sc.-Ph.D., M.Sc.-Ph.D. Dual Degree, and other postgraduate programs at IITs and IISc, was the focus of the second session. **Prof. Shamit Bakshi, Vice Chairperson**, GATE-JAM 2025, clarified the exam format. The exam measures a candidate's undergraduate science knowledge. The National Programme on Technology Enhanced Learning (NPTEL) content was also emphasized during the awareness event as a useful preparation tool for the GATE and JAM exam.

The GATE has provided the MOCK TEST Series for the students and Live mentoring sessions for students in phases. To understand the preparation standards, GATE has provided previous year's question papers along with video solutions for all disciplines. This will facilitate the students more competitive and better prepared for the GATE and JAM Examinations. **Dr. Rajesh Panda** and **Dr. Balireddy Raman** organized this event at the Mini Auditorium of our college.

SFC WORKSHOP

-Dhanusvarshini K, 2nd year

Attending the SSN Film Club workshop in collaboration with Curd Fried Rice offered invaluable learning opportunities. I gained a comprehensive understanding of short filmmaking, covering essential aspects like writing, direction, production, cinematography, editing, and DI. Personalized mentorship for the prestigious IFP Film Challenge provided actionable tips and industry secrets. I learned from industry experts, gaining insights into the latest trends, techniques, and best practices in filmmaking.

Networking opportunities allowed me to connect with like-minded individuals, industry professionals, and potential collaborators. Hands-on experience and practical skills acquired during the workshop enhanced my ability to apply theoretical knowledge in real-world scenarios. The workshop's creative energy inspired me to pursue my filmmaking passions.

Constructive feedback on my work helped identify areas for improvement, refining my craft. I learned the importance of collaboration and teamwork in filmmaking, essential for bringing creative visions to life. Overall, the workshop provided a holistic learning experience, equipping me with the knowledge, skills, and inspiration to excel in filmmaking.

SSN ASTRO CLUB ORIENTATION

-Gowri Shankara Narayanan A, 2nd year

On 19th August 2024, SSN Astro Club in collaboration with Institution's Innovation Council (IIC), jointly organized a one day workshop on "Introduction to Astronomy and Telescope Observation of Astronomical Objects in which India's inaugural National Space Day (NSpD-2024) was celebrated. The UGC and ISRO encouraged this through their theme "Touching Lives while Touching the Moon: India's Space Saga".

Prof. V. E. Annamalai, Principal of SSN College of Engineering inaugurated the event with special emphasis on the importance of innovation and such programs in strengthening the institution's NIRF ranking. Welcome address was given by **Dr. P. Rajesh, Associate Professor, Department of Physics**.

It attracted over 250 undergraduates, featuring three acclaimed speakers: **Mr. Vijay Vaidyanathan (Senior Astrophotographer), Mr. Infant Karmael Reju (Director, Kalam's Observatory)**, and **Mr. Ashwinth Jeferry (Research Scholar and Astrophotographer).** Their talks greatly enlightened the students about this scientific study of astronomy and sparked interest in exploring the universe.

The evening sky-watching session, facilitated by two telescopes, allowed students to observe the Super Blue Moon and the planets Venus and Saturn, amidst cloudy conditions. The session was accompanied by detailed explanations from the resource persons. The ability of the resource persons to elaborate made it possible to deepen the learning experience.

Overall, the workshop was a success, thanks to the efforts of undergraduate volunteers and faculty members, along with generous support from the institution's management.

REPORT ON SANCHAR MITRA AWARENESS PROGRAM

- Goutham R, 3rd year

The Directorate of Telecommunication, Government of India has established 100 5G use cases labs across India, and SSN College of Engineering is the only Self financing college in Tamil Nadu to be granted the lab. In line with that, the DoT has established **"Sanchar Mitras",** who are tasked with spreading awareness about the various citizen centric services and portals. In India's advent into 5G and its proliferation into many use cases, the citizens are not fully aware of its advantages and believe in myths. In order to break those myths and create awareness about the services, we conduct sessions for the students and the general public. In line with that, I, along with another Sanchar Mitra (Dharini, 4th year, BME) conducted a session in the 4th year BME classroom.

The awareness program covered the following points:

CHAKSHU - Chakshu facilitates citizens to report the suspected or unsolicited communications received through calls, SMS or WhatsApp, which are intended for cyber-crime, financial frauds, impersonation, fake customer services / lottery offer / loan offer / job offer / installation of mobile tower / disconnection of services or KYC update / loan etc. or any other misuse.

KNOW YOUR MOBILE- Through KYM, you can check the validity of your mobile device even before buying it. IMEI is written on the mobile packaging box. It can be found on the mobile bill/invoice. From your mobile you can check the IMEI number by dialing *#06#, IMEI number will be shown on mobile screen.

CAMPUS PULSE

120 DAYS OF BUZZ

BLOCK/UNBLOCK STOLEN MOBILE PHONE- CEIR module facilitates tracing of the lost/stolen mobile devices. This also facilitates blocking of lost/stolen mobile devices in the network of all telecom operators so that lost/stolen devices cannot be used in India. If anyone tries to use the blocked mobile phone, its traceability is generated. Once mobile phone is found, it may be unblocked on the portal for its normal use by the citizens.

TAFCOP module facilitates a mobile subscriber to check the number of mobile connections taken in his/her name. It also facilitates to report the mobile connection(s) which are either not required or not taken by the subscriber.

RICWIN module facilitates citizens to report the incoming international calls received with local Indian number (+91-xxxxxxxxxx). RICWIN enables citizens to be government's eye to report such calls for busting/unearthing suspected illegal telecom setups which cause loss to the Government's exchequer and pose a threat to national security. The Know Your Wireline Internet Service Provider (KYI) module facilitates citizens to check the details of Wireline Internet Service Providers (ISPs). The module enables the citizens to search for presence of any ISP across the length and breadth of the country by entering PIN code, address or name of the ISP.

These portals can be accessed by the home website **https://sancharsaathi.gov.in/**. Also, the DoT has another portal **"TARANG SANCHAR",** which helps public to identify and verify the cell towers nearby and check if they follow the guidelines regarding EMF radiation emissions. **Taarang Sanchar Portal** envisages to disseminate the information to the public regarding Electromagnetic Fields (EMF) signals and to allay the misconceptions and fear of health issues due to EMF emissions from mobile towers. Public, at large, will be now able to check the current status of the mobile tower located anywhere in the country and the EMF signal compliance status of the same.

Visit https:**//tarangsanchar.gov.in/emfportal** to learn more.

STUDENT SPOTLIGHT

ILLUMINATING BRIGHT FUTURES

MY REGRET

-Hemalatha G V, 2nd year

My Regret
Scribbling through pages of non-rhythmic life,
We fail to overlook the purpose why we live
Whenever I close my eyes, memories brushed my soul like a breeze
Remember? Trying to summon our books with a scale,
Remember when we got our first cycle?
The days when we used to play in the streets,
Remember the cartoons , the 2d friends, we used to live with?
I miss myself, the inner child who chatters her all day to her mother
I miss myself, who named her pet, a grizzly black dog.
As cherishing the childhood, my lips curved a little!
In the life of sudden surprises,
We travel with a hope towards the dreams we dreamt
But as time flies, we forget what the dream was
We dreamt for happiness,
We dreamt for peace and love,
Nevertheless, We now live a life with everything but not with Peace!
We does everything but without happiness!
We forget to love and care for others and ourself in the life of ×10 speed!
We fail to notice "Living the moments instead of chasing the destination will make everything better."

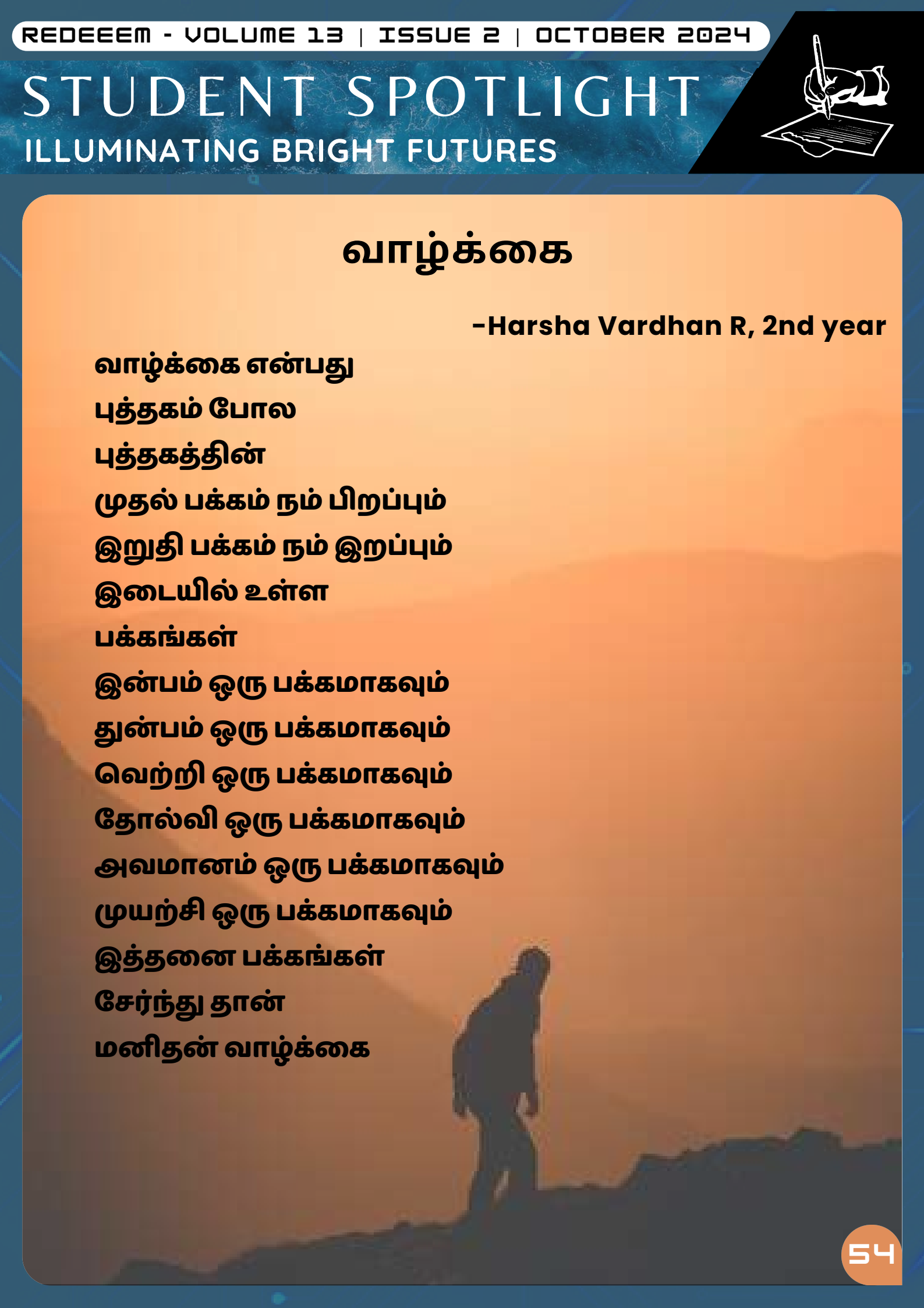
STUDENT SPOTLIGHT

ILLUMINATING BRIGHT FUTURES

வாழ்க்கை

-Harsha Vardhan R, 2nd year

வாழ்க்கை என்பது
புத்தகம் போல
புத்தகத்தின்
முதல் பக்கம் நம் பிறப்பும்
இறுதி பக்கம் நம் இறப்பும்
இடையில் உள்ள
பக்கங்கள்
இன்பம் ஒரு பக்கமாகவும்
துன்பம் ஒரு பக்கமாகவும்
வெற்றி ஒரு பக்கமாகவும்
தோல்வி ஒரு பக்கமாகவும்
அவமானம் ஒரு பக்கமாகவும்
முயற்சி ஒரு பக்கமாகவும்
இத்தனை பக்கங்கள்
சேர்ந்து தான்
மனிதன் வாழ்க்கை



STUDENT SPOTLIGHT

ILLUMINATING BRIGHT FUTURES

THE EXTRAORDINARY TALE OF INDIA'S "ELECTRIC BOY"

-Arjun R R , 2nd year

He has demonstrated his ability to touch live electrical wires without experiencing any pain or injury. One of the more remarkable tests involved him being submerged in water while exposed to 440 Volts of electric current. Despite the high conductivity of water, he remained unharmed.

Doctors and scientists have conducted medical examinations to study his skin, nervous system, and overall physiology to understand why he doesn't get electrocuted. Several theories have been proposed to explain his resistance to electricity.

His skin might have an unusually high resistance to electricity, possibly due to a thicker epidermis or unique skin cell composition.

A unique balance of water and electrolytes in his body might help dissipate electrical energy more effectively.

In the heart of Haryana, India, lives a young boy with an extraordinary ability that has baffled scientists and amazed the public. Known as the "Electric Boy," he possesses a unique talent: the ability to withstand high voltages of electricity without harm.

This remarkable skill has earned him widespread recognition and curiosity. The discovery of his ability was purely accidental.

As a child, he once touched a live wire while playing, expecting the usual shock and pain. To his surprise, he felt nothing. Intrigued, he began to experiment further, gradually increasing the voltage to see how much he could endure.

STUDENT SPOTLIGHT

ILLUMINATING BRIGHT FUTURES

His family and friends were initially shocked and concerned, but as he continued to demonstrate his unusual resistance to electricity without any harm, they began to accept and even marvel at his ability.

He could possess rare genetic mutations that provide natural protection against electrical currents. His body might have developed adaptive mechanisms over time to enhance his resistance.

Interestingly, the "Electric Boy" is not alone in his extraordinary talent. There have been other notable cases of individuals with unusual resistance to electricity, such as Slavisa Pajkic (Biba Struja) from Serbia, Rajmohan Nair from India, and Mithilesh Kumar Srivastava (Natwarlal) from India.

These cases have also intrigued scientists and the public, leading to various tests and studies to understand their resistance to electricity. The story of the "Electric Boy" is a fascinating blend of human resilience and the mysteries of the human body. As research continues, we may one day fully understand the science behind his extraordinary ability.

ALUMNI CAREER DEVELOPMENT PROGRAM

- Illakkiya A K, 3rd yr

Our Career Development Centre (CDC) recently held a workshop to help students prepare for job placements. This workshop was special because our college alumni were invited to conduct mock interviews and guide us through the process. The workshop offered students three job categories to register for: software, core (specific to each department), and management. We could choose our preferred category or even register for all three. Final-year students were given preference, allowing them to gain the most from this experience.

One of the main activities was the one-on-one mock interviews with our alumni. For the Electrical Department, we were fortunate to have Harinee Muralidharan, an alumnus who currently works at Ford Motors, a core company in the industry. Harinee was very friendly and easy to talk to during the one-on-one sessions. She helped us recognize our strengths and pointed out areas where we needed to focus more. Her guidance was incredibly valuable in helping us improve our interview performance. Besides the interviews, there was a session on how to do well in an interview.

Alumni shared tips on answering common questions, using positive body language, and making a strong impression. This advice boosted our confidence and made us feel more prepared for upcoming interviews.

The workshop also included a mock group discussion, where students practiced discussing topics as a group. The alumni evaluated our performance, focusing on how we communicated, worked together, and showed leadership. Their feedback was very helpful in teaching us the important skills needed for group discussions.

Overall, the workshop was a great success. It gave us the opportunity to interact with industry professionals and improve our interview skills. Thanks to the guidance from our alumni, we now feel more ready to face the placement season.

STUDENT SPOTLIGHT

ILLUMINATING BRIGHT FUTURES

MY FIRST SHORT FILM JOURNEY: THE SQUAD

-M John Wesley, 2nd yr

Hi Everyone, I am M. John Wesley from the 2nd year EEE Department. I am here to share my first short film experience, which was a journey of one and a half years. I would like to share this memorable journey with you. From a very young age, I have been interested in watching movies. I was basically a movie lover during my school days and often talked about movies with my friends. In school, I wrote several short stories. My friends and I decided to start a YouTube channel, but unfortunately, that didn't happen.

A few years later, I joined the Diploma in EEE department in Erode. After completing my first year in the diploma program, my friends and I began attending various colleges for paper presentations. During one such event in Coimbatore, after finishing our paper presentation, we went to a hall where a short film competition was taking place. I was impressed by the work of the students who participated. They showcased their talent with limited equipment and did their best. Watching those short films inspired me to create my own. So, my friends and I decided to make a short film during our 4th semester holidays. I started working on the script, facing many struggles and challenges.

I had no budget and no actors, so I had to write a script that included only five boys and required minimal locations, while still having a unique storyline. After completing six drafts, the seventh draft was finalized by my team. The short film was titled "The Squad." This film required an old building, and when I was searching for one, no one would allow us to shoot. We approached many buildings but couldn't get permission until we finally found one old building that granted us access. After finalizing the location, my team and I prepared for shooting. However, our department required all students to attend internships during the semester holidays, so my friends and I had no choice but to go on an internship. I waited a semester to start shooting the short film. After making a few corrections to the script during the 5th semester holidays, we began filming with an iPhone and tripod. There were only five members in our team, and we also had a red car that acted in the short film. We had only two weeks to shoot the film without any delays. We started shooting, and my team worked very hard for one week.

STUDENT SPOTLIGHT

ILLUMINATING BRIGHT FUTURES

MY FIRST SHORT FILM JOURNEY: THE SQUAD

-M John Wesley, 2nd year

However, after one week of shooting, heavy rain affected our location, completely flooding it. We couldn't take a single step. We waited for three days for the water to drain completely before resuming shooting. Suddenly, our practical exams started, leaving us with only one week to finish the short film before college reopened. My team and I worked hard and fast to complete the film, and after one week, we successfully finished it.

With just five members in the team, we completed the short film. I didn't have time to edit it, so I waited another semester to edit the short film. After completing my 6th semester, my diploma life was over. I had a four-month break before joining engineering, during which I started editing my short film. I learned editing through YouTube, and I also created an animation video with AI for a small flashback scene we couldn't shoot due to a lack of actors and locations. I handled editing, animation, dubbing, color grading, sound effects, and background music during that four-month holiday. I worked very hard to produce the output of the short film within four months, but I managed to finish it in three and a half months. After a long wait, my friends and I finally watched our short film and enjoyed it. My family was also very happy. My parents and friends supported me; without them, this wouldn't have been possible.

When I finally saw "Written and Directed by John Wesley" on screen, I felt very happy and emotional after one and a half years of work. Our thriller short film "The Squad" was released on the Director Sarilla YouTube channel. This journey involved many struggles and challenges, requiring a lot of patience to achieve our goals. In many situations, I thought about dropping the shooting of the film due to these struggles, but I didn't stop. I kept working on it, and finally, my dream was fulfilled when I uploaded it to the YouTube channel. So, I will continue this journey, and I encourage you all to pursue your dreams and work hard for them. Thank you.

And here I present you my work:
https://www.youtube.com/watch?v=yy-8XfylyIM

SHUTTER SPEAKS

FOCUS. FRAME. CAPTURE.

Alfred Jerlin Sounder, 4th year

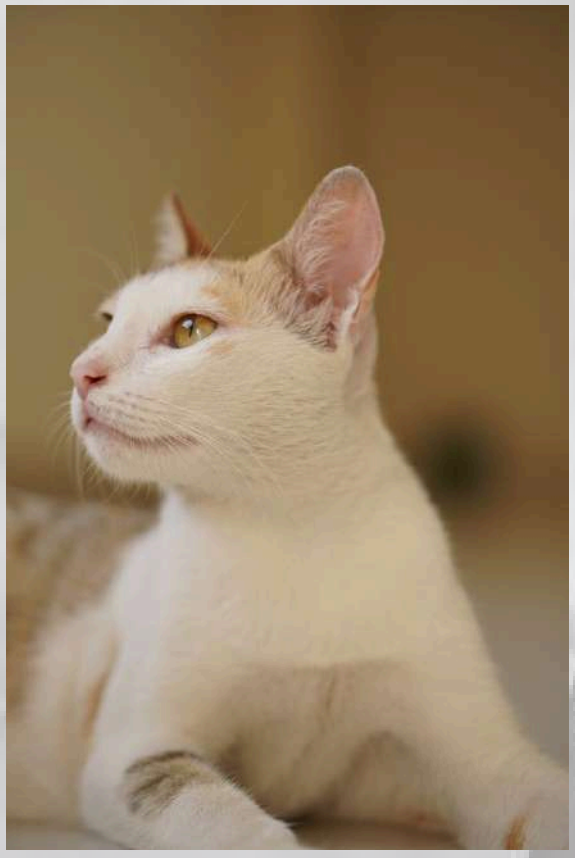
Abhinav Vijay, 2nd Year

Harsha Vardhan R, 2nd Year

Nandhini, 2nd Year

SHUTTER SPEAKS

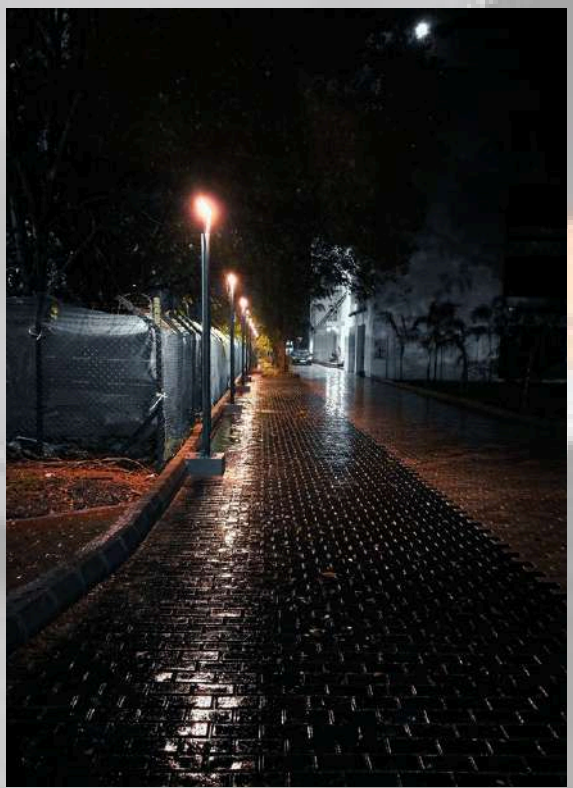
FOCUS. FRAME. CAPTURE.



Sai Kanna, 4th year

Bhuvanesh N P, 3rd year

Kathirvel, 2nd year



Dhanushram K, 3rd year

Deva Aswin, 2nd year

ARTISTRY UNLEASHED

ART IN FLOW

Christina Lydia Grace,
2nd year

Christina Lydia Grace,
2nd year

Chindhana K,
2nd year

Christina Lydia Grace,
2nd year

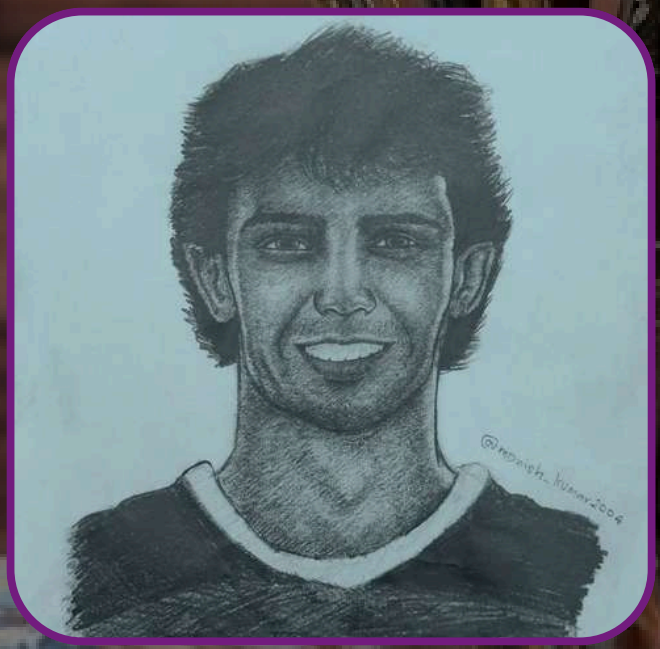
ARTISTRY UNLEASHED

ART IN FLOW

Prathukshaa P, 3rd year

Prathukshaa P, 3rd year

Monish Kumar , 3rd year



Monish Kumar , 3rd year

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Name: **Indhuja S K**
Company: **Schneider Electric**
Position: **Graduate Trainee Engineer**
Former Intern: **NISSI Engineering Solution**

Reported by: **Supraja, 3rd yr EEE**

Hi all!! I am Indhuja from final year and I've been placed at Schneider Electric. To be very honest I did not expect this to happen until the moment our test results were out; that's when I decided that I had to somehow get this job. Before giving you all the details about the process and everything I would just like to put forward a piece of advice to each and every person sitting for placements.

Firstly, given an opportunity, give it your best and make complete use of that opportunity; whether you get the job or not. And secondly, don't lose hope. This is very very important as far as placements are concerned; especially if you are someone aiming for core companies, as most of these companies recruit a maximum 2 to 3 people from our department and it will push you into utmost depression witnessing people getting consequently placed. Trust me it is not easy. But I am not here to scare you, rather I am just trying to tell you that you will have a place where you fit in perfectly and you just have to wait for the right time.

Moving on, to my placement experience at Schneider, I had to go through nearly 4 rounds of the entire process which included an online proctored test, 2 technical interviews and 1 HR interview.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Round 1:
As I had mentioned earlier this was a proctored test. It had 3 sections – technical, gamification round and behavioural quiz. For the technical test, we had to choose a domain which we intend to work in and I chose Electrical and automation.

Some other domains were Schneider digital and Research and development. This section included questions from signals and systems, electrical machines, digital electronics, power system analysis, power system operation and control, power electronics and protection and switchgear and we did have a set of communication questions which was another section that included negative marking. Then we had to play a couple of games; and then comes the Behavioural quiz. The duration of the entire test was for about 2 hours.

Round 2:
After the online test, the results did come within a span of 2 days and only 3 of us were selected for the next round which is the technical interview. This was also conducted online in the Microsoft teams platform. All three of us had interviews on 3 different days and I was the first to attend their interview amongst the three of us.

During the interview I was questioned mainly on my internship and final year project that I had included in my resume. Both my internship and project were very much related to the company's domain of work and I do believe that it gave me an upper hand in the entire process. I did my internship at NISSI Engineering Solutions, which was arranged by our college, and I would say that it was definetely worth it and played a very important role in my placement. I was also questioned on the basic concepts of machines, protection and switchgear and power system analysis. The interview went on for about 25 minutes and I was again shortlisted for the second technical interview the next day.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Round 3:
This was again conducted online. The second technical interview went on for about 50 to 60 minutes. For this round the questions were almost similar to the previous round but I was questioned with further depth in this round. It did go well and I was shortlisted for the HR interview.

Round 4:
The results for the HR interview arrived 5 days after attending the 2nd technical round and it merely went on for about 10 to 15 minutes. I was asked to talk about myself and they did ask my about my location preference and that was it.

The next day, I received a call from CDC that I've been placed at Schneider Electric and was asked to submit the letter of intent (LOI) at the CDC the next day.

Quick Q&A

1.What is the eligibility criteria?
A minimum CGPA of 6.5 and no history/ standing arrears.

2. Additional courses taken
None

3. Former Intership experience/aid
I did my internship at Nissi Engineering solutions which was arranged by our college and I should say that it was definitely worth it and played a very important role in my placement.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Name: **Tejaswini S - EEE**
Company: **Ashok Leyland**
Position: **Graduate Engineer Trainee**

1.What was the eligibility criteria (cgpa, arrears and active backlogs)

- 70% or equivalent CGPA in X, XII and UG Maximum age of 23 as on 01.07.2025
- No Standing arrears at the time of Application.

2.Name of Core/IT/management placement company and the role u got selected for Ashok Leyland

Graduate engineer Trainee

3.How many rounds was your interview and how was your interview experience?

There were totally 5 rounds of interview

- Technical and aptitude test-mcq(100q in 1hour)
- Gamification round- checks alertness and control
- Group discussion- general non technical topics
- AI Video round- Had to talk for 1minute on the topic generated by AI(no elimination in this round)

Technical and HR interview- The technical questions asked were from the subject you tell as your favourite and main questions were asked from the projects.

4.How much important is project for placements?

It is important to have done relevant projects to meet the requirements of the company.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

5.Any special tips for skills and resume building,

Practice gate exam questions which will make your core knowledge stronger. Have seperate resumes for core and IT highlighting skills and projects of the particular domain. Stick to one page resume.

6.How to prepare for core/software/management placements and important topics courses or subjects ?

Important topics for EEE core includes most of the courses done in second and third year. EV based company- machines and power electronics Wood Plc., Dow Chemicals (Designing plants) - power system analysis, power system operation and control, GTD In the technical test of Ashok Leyland we were tested in all core courses we studied machines, PE, EDC, Signals and systems, Control Systems, DLSD, PSA, PSOC and Electromagnetic Theory.

7.Any regrets looking back?

Not revising the above mentioned topics properly before the test. Due to time constraints I was able to revise only few of them.

8.Final thoughts ?

All the best!

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Name: **N Sarvesh**
Company: **Wood India Engineering and Projects Private Ltd.**
Position: **Graduate Engineer Trainee (GET)**

1.What was the eligibility criteria (cgpa, arrears and active backlogs)

- 70% or equivalent CGPA in X, XII and UG.
- No history of arrears.

2.Name of Core/IT/management placement company and the role you got selected for

Wood India Engineering and Projects Private Limited -Graduate Engineer Trainee(GET)

3.How many rounds was your interview and how was your interview experience?

There were two rounds. The first round consisted of a 30-minute aptitude test followed by a 60-minute technical test. The second round was a technical interview that lasted about 40 minutes. The interview was more of a technical discussion, covering various aspects related to power systems, machines, and simulation tools used.

4.How important are projects for placements?

Projects and internships help define a candidate's interest in a particular field. Aligning the skills obtained from completing a project with the role specific skills required by companies increases your chances of being hired. For example, if you are applying for an application engineer role in an embedded systems firm, having completed a project involving the use of various protocols such as I2C and UART would strengthen your profile.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

5.Any special tips for skills and resume building

To develop your skills, first choose your area of interest and observe the trends in that industry. Start by searching for free courses available on YouTube, Udemy, and Coursera. Once you have a basic understanding, explore the concepts through DIY projects. If you're interested in the electrical domain, look into the papers published by professors in our department. If your interests align with a professor's, pursue an IFP and collaborate with them. This should be sufficient.

6.How to prepare for core/software/management placements and important topics courses or subjects ?

I was focusing solely on core placements, which I would divide into the Electrical and Electronics domains. On a basic level, make sure you have a good grasp of aptitude and basic circuit theory questions, using resources like IndiaBix. For Electrical companies, it's recommended to have a strong knowledge of protection devices, various simulation tools, and power systems (PSOC and PSA).To level up, understanding standards and protocols for specific applications (e.g., IEC standards and communication protocols in the automation sector such as KBUS and PROFIBUS) would be beneficial. For EV companies, having sound knowledge of EV architecture types, machines, and power electronics would be advantageous.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

For Electronics-based companies, practice and build a solid understanding of C and C++, focusing on data structures (linked lists, stacks, queues, structs, and unions) and OOPs concepts. Focussing on courses like Signals and Systems, Digital Logic Design, Microprocessors, and Microcontrollers will also be highly beneficial. If your interest is highly inclined towards electronics you can watch Behzad Razavi's lectures on analog electronics and trying it out in Pspice or LT spice. Obviously, you can't focus on all of these simultaneously, so try different things for a period of time, choose your primary focus, and work towards it by setting and achieving specific targets.

7.Any regrets looking back?

Yes, I regret not fully utilising the lab coursework properly for understanding the subject despite the grades I obtained and not devoting enough time to revising the basic concepts. Regrets are part of the process and will always be there in one way or another. Focus on your routine, set biweekly targets apart from your regular academic journey, and work towards accomplishing them.

Final thoughts?

Hey! You will always find a way, just like everyone else did. Stay confident and believe in yourself.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Name: **R Venkatsriram**
Company: **Wood India Engineering & Projects Private Ltd.**
Position: **Graduate Engineer Trainee**

1.What was the eligibility criteria (cgpa, arrears and active backlogs)

- 70% or equivalent CGPA in X, XII and UG.
- No history of arrears.

2.Name of Core/IT/management placement company andthe role you got selected for

Wood India Engineering and Projects Private Limited - Graduate Engineer Trainee(GET)

3.How many rounds was your interview and how was your interview experience?

Aptitude and Technical test:
The two tests were conducted continuously with an aptitude test given for 30 minutes and followed by the technical test for one hour. The aptitude test was of normal level and it also included general knowledge and verbal type of questions. And the technical questions had 40 MCQ type questions and 2 questions which asked to draw diagrams.

Technical Interview:
The interview covered the questions related to the concepts in power system and GTD and about the explanation about the project and the internship I have done.

HR round:
It mainly covered the company details and not much of the technical side.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

4.How important are projects for placements?

Projects play an important role in your interview. Any company will evaluate based on your project idea and how you implement it. There may be many questions related to your project so try to focus and learn while your doing your projects.

5.Any special tips for skills and resume building .

If you are trying for both the IT and core companies, then keep a separate resume for each of these and try to add all the points descriptive and short and fit it to one page. Add your projects and internships and hackathons you participated and prepare yourself to answer the questions they ask from it.

6.How to prepare for core/software/management placements and important topics courses or subjects ?

For Core companies, for electrical, prepare for your core subjects like GTD, Power System Analysis. Electrical Machines-2, Power Electronics etc., and try to solve gate problems. Prepare on topics that are closely related to your projects. For Electronics, prepare for the core subjects like Electronic Devices and Circuits, Analog Electronics, Digital Electronics, Microprocessors and Microcontrollers etc., and try to do internships in electronics related companies and projects related to Electronics. For IT companies, you need to know about Data Structure Concepts and try to solve Hacker Rank problems continuously and do projects and internships related to the IT sector.

7.Any regrets looking back?

Yes, covered important courses offered in college are in a rush to complete the portions rather than focusing on subjects.

Final thoughts?

Be Confident and Positive Guys, All the Best!! Thank you

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Name: **Khavipriya - EEE**
Company: **Wood India Engineering and Projects Private Ltd.**
Position: **Graduate Engineer Trainee (GET)**

1.What was the eligibility criteria (cgpa,arrears and active backlogs)

- 70% or equivalent CGPA in X, XII and UG.
- No history of arrears.

2.Name of Core/IT/management placement company and the role u got selected for

Wood India Engineering and Projects Private Limited - Graduate Engineer Trainee (GET)

3.How many rounds was your interview and how was your interview experience?

The first round was a combined aptitude and technical test. The aptitude test consisted of 40 questions to be answered within 30 minutes. The questions were of easy to moderate difficulty. The technical test lasted 60 minutes and consisted of 60 questions. In the second round, I had a technical interview where I was asked about various topics related to electrical machines and generation, transmission and distribution (GTD). The interviewer also asked me about the different voltage levels and surge arresters. Finally, there was more of a technical discussion on renewable energy sources, power plants, my projects and my internship experience. The interview lasted around 40 to 45 minutes. The subsequent HR round covered company details.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

4.How important are projects for placements?

Projects are essential for placements. The practical skills gained by applying theoretical knowledge will be of great value. They allow you to demonstrate your skills which can help you stand out from the competition.

5.Any special tips for skills and resume building.

Do courses in the domain that you are interested in and develop projects to showcase your practical skills and knowledge. Gain a deep understanding of your work. Keep your resume concise and fit into one page. Highlight skills that are relevant to the job you're applying for. Be honest and transparent in your resume. Ensure that everything you include on your resume is accurate and reflects your true abilities.

6.How to prepare for core/software/management placements and important topics courses or subjects ?

Preparation for core companies:

Have a strong foundation in circuit theory and electromagnetic theory. For electrical companies, important subjects to focus on are electrical machines, power electronics, power system analysis (PSA), power system operation and control(PSOC) and generation, transmission and distribution (GTD). Focus more on topics that are related to your internship and projects. For electronics companies, focus on electronic devices and circuits (EDC), analog and digital electronics, microprocessors, and microcontrollers. If you are targeting embedded system companies, first and foremost, you need to be strong in C. Also, have a deeper knowledge of technical concepts and hands-on experience. Data structures would be advantageous.

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

The projects that you do will speak about the skills you have gained. For technical subjects, I would suggest you to watch Neso Academy YouTube channel during your preparation. GATE questions will help in further understanding of core concepts. Apart from these, have a good hold on aptitude: quantitative, logical reasoning and verbal ability. Refer to CareerRide YouTube channel and practice on IndiaBix.

7.Any regrets looking back?

I wish I had spent more time practising GATE questions during each semester to deepen my conceptual knowledge and enhance problem-solving skills.

Final thoughts?

The beginning can be intimidating, but just start by taking the first step. You will figure things out as you proceed. Carry yourself with confidence. All the best!

Reported by
Yogitha Lakshmi
3 rd year

PLACEMENT EXPERIENCE

NAVIGATING CAREER PATHS

Name: **Uppili Narasimhan G G**
Position: **Graduate Engineer Trainee**
Company: **Kellogg Brown and Root Inc.**
Batch: **2020 - 2024**

Reported by: **Harsha Vardhan R, 2nd year**

I recently had a 45-minute interview which consisted of a single round. The interviewer began by asking me to introduce myself, followed by questions about my internships, projects, and extracurricular activities. The technical questions that followed focused on electrical engineering topics, specifically types of motors (AC and DC), including their working principles, advantages, and applications, as well as types of transformers, covering their construction, working, and applications.

The Interviewer then probed into my internship experiences, seeking specific details about my roles, responsibilities, and accomplishments. However, the majority of the questions were centered around power systems, including transmission lines, load flow, power factor, and generators. We discussed the characteristics, types, and functions of transmission lines, the concepts, methods, and significance of load flow, the definition, importance, and correction techniques of power factor, and the types, working principles, and applications of generators.

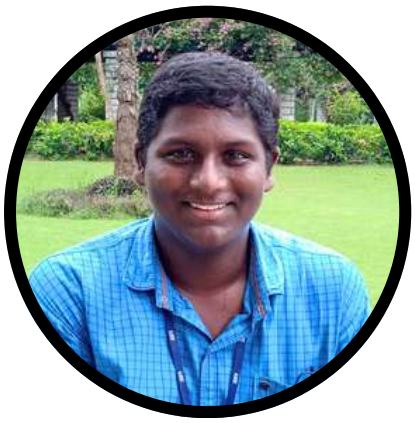
Overall, the interview assessed my knowledge, experience, and problem-solving skills in electrical engineering, with a focus on power systems and related concepts.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

INTERNSHIP EXPERIENCE AT TECHNIP ENERGIES

-Jayvishnu V, 3rd year



Technip Energies is a leading engineering and technology company for the global energy transition. Situated in 34 countries and in India for more than 60 years, they are a pioneer in fields such as hydrogen production, offshore wind energy generation, and circularity.

In August, the company had released interview applications for internships(for pre-final years) and full time employment(for final years). I noted down the important date, 27th August, on which they'd arrive for a pre-placement talk and a pre-interview test. On the important day, I took my resume which was hastily prepared for this opportunity and went to the Career Development Center.

There were many of my friends accompanying me which helped to ease the tension. There were atleast a 100 students from all four departments - EEE, CHEM, CIVIL, and MECH. This didn't help my dwindling confidence as I didn't think I'd stand out of the competition. After waiting what felt like an eternity, the company's HR team entered the room.

We greeted each other and were given the pre-placement talk. They introduced the company and showed us the research fields they currently were working in along with their different offices and plants. There were a few students who had attended the internship training program last year, and they gave us words on their experience, feedback and helped break the ice. This was pretty much it, after which we left for lunch and returned to take the test. The test was multiple choice questions, and fairly easy, with emphasis on your core domain. Questions for EEE were from the basics of machines and energy transmission. Luckily I knew most questions and answered them the best I could.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

We would receive a shortlist and come for an interview the next day. After a brief introduction of the head of engineering, and the interviewers, we headed to attend our interviews. One by one students went in and came out, discussed what was asked and how the student answered it. Hearing the sorts of questions eased me, as they were just basic questions any electrical engineer is expected to know. Apart from that there were a few real life application based questions, based on the students' feedback.

I entered, and after the formality of introducing each other, they looked at my resume and asked about my projects I had mentioned. They were just mini projects I did for various courses from our programme. Needless to say I explained them clearly, emphasizing where I stood strong. Then came the technical questions, most from concepts of generation and transmission. I answered them the best I could, not all correctly though. They were happy to correct me and interact to further analyze my standing in electrical engineering.

The interview ended and I was told to wait for the shortlist of selected students. I was a little nervous, but mostly content and satisfied. And I was happy when I heard that my classmate Radha Rukmani and I, were selected from EEE. We both were told to meet the head of engineering and the HR team.

Meeting the head of engineering was very helpful. He completely broke the ice and it finally made me feel comfortable without a worry. He asked me about my background and what I'd consider my strengths and weaknesses, which he corrected me and called them 'areas for improvement.' I liked that and then proceeded to meet the HR team. They asked me about my hobbies, plans, and general things other than academics. They were incredibly friendly and everything was a breeze.

I left the room hearing I was selected for the internship. Looking back, the experience wasn't as scary as I thought it would be. Being strong in your core fundamentals is what companies expect and they can train you in anything else they need. Acing a technical interview just requires sound fundamental knowledge, and an eagerness to apply them in real life.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

INTERNSHIP EXPERIENCE AT TECHNIP ENERGIES

-Radha Rukmani V, 3rd year

Does cgpa really matter for securing core internships?

Not really but it is safe that you maintain a minimum of 8.0. What truly matters is the knowledge you gain and how strong you are in the core concepts of electrical and electronics engineering

What is the eligibility criteria for Technip?

- The candidate must have a cgpa of 7.5 and above.
- No active backlogs and history of arrears.

How many rounds was the interview and how to prepare?

The selection process had three rounds. The first round was a written test which covered various electrical concepts such as power systems generation and transmission of power and machines. The second round was a technical interview round focusing on our technical knowledge ,understanding and conceptual clarity. The third round was a HR interview which involved questions about the core values of the company, as well as personal topics such as background and hobbies .

Any tips for the First and Second years?

The first year of college is mostly about exploring new things and having a lot of fun. Starting from the second year it is important to identify our domain of interest and focus on it. Always strive to understand concepts deeply rather than just memorizing them.

Any final thoughts?

Yes. A few final points. It is crucial to present your resume in a short and crisp manner, ideally one page. Even if you have a high profile, communication skills and confidence are what set you apart. I went into the interview with no expectations and was a little nervous, but stayed calm and gave my best.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

NAME	INTERNSHIP VENUE	SOURCES
Poojashri KM	BHARAT FIH-FOXCONN INDIA	Got internship experience using reference
Radha Rukmani V	COEZET IIT MADRAS	Through college
Rajalakshmi B	IIT MADRAS	Through staffs
Sueyebu s	E-SAMARP TECHNOLOGIES	Through mentor
Mohit Sandeep	SYSVEDA INFORMATION TECH	Referral
Monish Kumar S	IIT MADRAS	Contacts
Esha Agnes E	SHRIMITHA ENERGY SOLUTIONS	Mentor
Yokesh K B	IIT MADRAS	College
Alagar Karthick R B	SHRIMITHA ENERGY SOLUTIONS	College professors
Mahathi B	NEYVELI LIGNITE CORPORATION	Friends
Sriram S	HEWLETT-PACKARD	LinkedIn
Pranav C M	SWIMINGO	LinkedIn, Senior Connections and Tech club
Nivethithaa R	IIT MADRAS	College professors
Illakkiya A K	SHRIMITHA ENERGY SOLUTIONS	Mentor
Viswesh T	IIT MADRAS	Through college
Sornaharini D	TITAN COMPANY LTD	Friends support and guidance

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

INTERNSHIP AT SHRIMITHA ENERGY SOLUTIONS

-Esha Agnes, 3rd Year

My name is Esha Agnes R, a third-year Electrical and Electronics Engineering student at SSN College of Engineering. I am pleased to share my experience during my internship at **Shrimitha Energy Solutions and Private Limited.** Along with my friends, Alagar Karthick R.B, Illakkiya and Gunali, I was actively seeking internship opportunities during our 4th semester holidays. Upon consulting with my mentor, **Dr. R. Seyezhai,** I was introduced to an internship opportunity at **Shrimitha Energy Solutions**, which we eagerly pursued.

Program Highlights:

During the internship, students undertook a comprehensive project focused on the design, simulation, analysis, and lifetime estimation of AC-DC converters for various applications. The primary objective was to explore different converter topologies, examine key design aspects of power converters, and assess the reliability of power converter systems. As part of the internship, students conducted a reliability evaluation of power electronic converters, where system failures could have critical consequences.

Each of us was assigned a converter circuit, and we learned to calculate the Mean Time To Failure (MTTF) which helps identify which component is more prone to failure, enabling efficient maintenance by targeting the replacement of only the faulty part, thereby reducing both costs and downtime. We employed the Part Stress Analysis (PSA) method to evaluate the overall MTTF of the circuit and we utilized Fault Tree Analysis (FTA) through ITEM ToolKit software, which provided a graphical method to understand the relationship between components and their failure rates which is especially useful for circuits with multiple components. Additionally, we explored a machine learning based method known as Bayesian Belief Network (BBN), using GeNIe Academic 4.1 and MATLAB to implement the model. This approach incorporated the MTTF values from PSA and modeled the probabilities of each component's failure in relation to others. We found that BBN offered the most accurate and precise results when predicting the MTTF of the entire circuit.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

Program Outcomes:
Within one month, the students applied three advanced techniques to estimate the lifetime of the power converters and the results were validated using specialized software.

1. Part Stress Analysis (PSA)
2. Fault Tree Analysis (FTA)
3. Bayesian Belief Network (BBN).

The PSA method was performed using MIL Handbook 217F. FTA was conducted using the Item Tool Kit software; by constructing a fault tree diagram. The BBN analysis offered a probabilistic evaluation of component failures, providing a more detailed understanding of the system's reliability by considering interdependencies between different failure modes.

In conclusion, BBN emerged as the most effective method for determining the overall reliability of converter or driver circuits, while PSA was better suited for calculating individual component MTTF values. This internship provided us with an opportunity to delve into advanced techniques and gain hands-on experience in reliability prediction, for which I am sincerely grateful to Dr. R. Seyezhai for her guidance and support.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

INTERNSHIP AT IIT-M

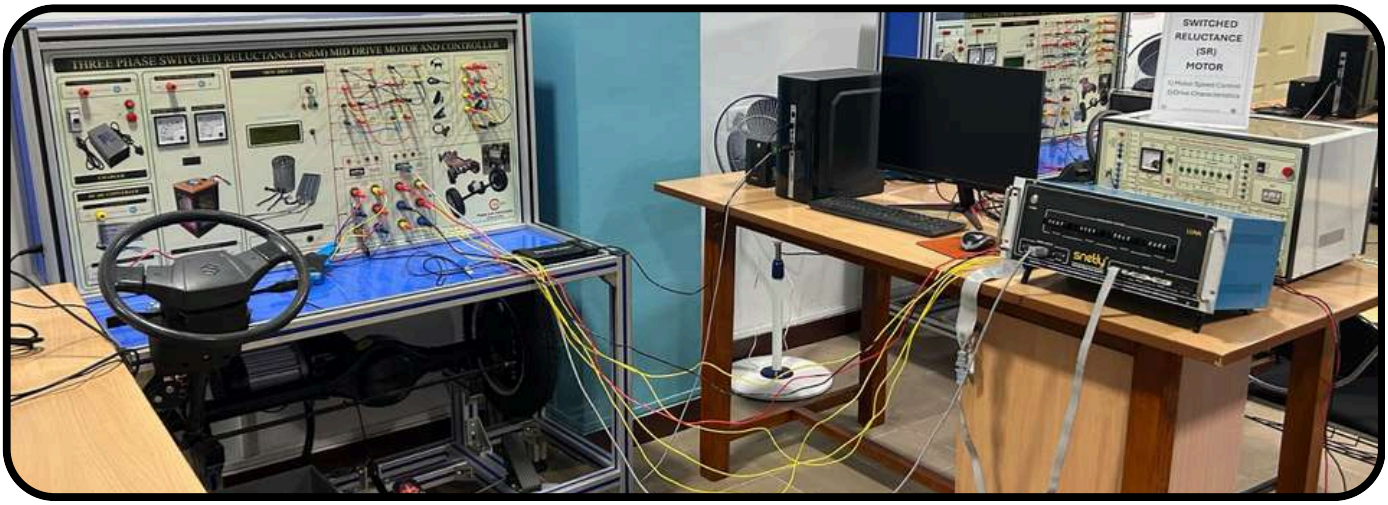
-Viswesh T, 3rd Year

Hello everyone, I am Viswesh, a third-year student from the Electrical and Electronics Engineering department at SSN College. I recently had the incredible opportunity to complete a 15-day internship at the prestigious IIT Madras campus, specializing in their e-Mobility Laboratory. I'd like to share some highlights of my time there. The internship took place in IIT Madras' Centre of Excellence, the CoEZET(Centre of Excellence for Zero Emission Trucking) Mission. From day one, I was fascinated by the work being done there. My primary task was to help design a motor that could deliver a standard output for different types of input requirements. I focused on gaining insights into the various types of electric motors used in different vehicles.

During my internship, I worked with three types of motors. The motor used for two-wheelers was a hub motor that is very effective and efficient light electric vehicles such as two wheeler. The motor used for three-wheelers was a Switched Reluctance Motor (SRM), which I personally got to design as a part of my project. Lastly, for four-wheelers, the laboratory used Permanent Magnet Synchronous Motors (PMSM) due to their versatility and power. My work was concentrated on the SRM motor, diving into its intricacies and ensuring it would meet the required performance standards.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE



I received great guidance from the IIT Madras staff. The e-Mobility Lab provided a real-world learning experience beyond textbooks and offered world-class infrastructure that made the internship a enjoyable experience. The entire building was fully air-conditioned, and all the vehicles used within the campus were electric, reinforcing their commitment to sustainability. I had access to affordable, healthy food and free Wi-Fi everywhere I went, making my stay there extremely comfortable. The friendly atmosphere made it easy to focus on learning. The good news is that the staff at IIT Madras had promised to extend the same opportunity next year to thesecond-year students of our college. I am grateful for this and a special thanks to **Kamaraj Sir**, whose efforts made this internship a reality for us.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

INTERNSHIP AT IIT MADRAS

-Mandati Sai, 3rd Year

I'm Mandati Sai, currently in my third year. During my fourth semester's summer break, I got an opportunity to work at the E-mobility lab, namely CoEZET, at IIT Madras. Not only has it expanded my horizons, but it also enabled me to fulfil my long standing dream of studying in the august environs of IIT Madras.

During my internship, I had to study and implement Power Converters, Motor Controllers, EV Test and ARAI Standards. There are three projects that I worked on which allowed me to get new insights and more practical experience. The first work entailed the designing of a motor drive for a Permanent Magnet Synchronous Motor (PMSM). In previous projects, it was my duty to regulate the motor's speed and for this we used Altair PSIM, and then mapped the complete model with FPGA (Snetly Modular Real-time System).

The second was with regard to the evaluation of the electrical energy consumption of electric vehicles. Here, I studied various testing methods to evaluate energy consumption, performance, and output parameters such as speed, torque, and power, based on the AIS-039 (Rev. 1). Third was about power converters and that made me understand Buck, Boost, Buck-Boost Converters and an inverter. This was done through simulation and even the hardware part was implemented in the lab. The feel in the campus of IIT Madras has been more or less a revelation in every sense one could imagine. The most memorable were the laboratories accompanied by modern instruments and the faculty members, who are very encouraging and welcoming to students, helped to turn the learning process into a fun and productive experience.

INTERNSHIP EXPERIENCE

BRIDGING THEORY AND PRACTICE

The faculty members **Dr. Esther, Dr. Srikanthan S and Dr. Nilesh J Vasa** were very motivating and encouraged success every time we achieved even the smallest goals. Thanks to their encouragement I was able to endeavour – to try and strive to reach for the best. Each day at the lab remained as a day of endeavor, a day of possibility, of gaining knowledge to experiment and innovate.

I am grateful to **Dr. Kamaraj** from the Department of Electrical and Electronics Engineering, SSN College of Engineering for offering me this fine chance. Without him, I would have never had the opportunity of being a part of the enriching campus of IIT Madras during my education which was enriching for my academic and my career. In fact, this internship was not simply an academic exercise but the fulfillment of a dream that I myself had once entertained at high school level. While I did not manage to secure an opportunity to join IIT right after my class 12 results, this internship let me work and develop myself in the environment which I dreamed of being a part of. Having this opportunity to be a part of such renowned institution, even if it is just for a few months, gives me great pleasure, so I am eager to use the knowledge obtained in order to have a positive impact on the development of electric mobility.

JUNIOR JITTERS, SENIOR SAVIORS

CRACKING THE CODE, ANONYMOUSLY!

1. How did you realize which domain is the right fit for you?

I have always had a deep interest in physics. Coming from a state board background, I particularly enjoyed studying physics during my school years. In 12th grade, physics primarily focused on electrical and magnetic phenomena, which greatly influenced my decision to pursue this field further. I also came across a Japanese concept called 'Ikigai,' which helps individuals find their purpose. It asks questions like, "What do you enjoy doing the most?" "What does the world need?" and "What can you make a living with?" By answering these, you can often find your purpose. For me, the recurring answer to these questions aligned with my interest in this domain, and that's how I found my Ikigai. As the saying goes, "When you start doing what you love, you never have to work a day in your life." I believe that if you explore deeply, you'll find your own Ikigai too.

Don't regret the decision you made when choosing your department. Since you've chosen it, give it a fair chance and explore it fully. You might find it more interesting as you delve deeper. However, if it still doesn't feel right, consider exploring other domains that resonate better with your interests.

2. What topics should I cover if I'm planning to get placed in core industries?

To secure a placement in core fields, it's important to focus on the foundational subjects typically introduced in the second year of your program. However, don't overlook your first-year syllabus, as it forms the basis of your technical understanding. Subjects act as a bridge to more advanced courses. A strong grasp of these core topics will enhance your understanding of more complex material in later years, improving your prospects in core placements.

JUNIOR JITTERS, SENIOR SAVIORS

CRACKING THE CODE, ANONYMOUSLY!

3. What is the hardest subject according to you?

For me, the hardest subject so far has been Electronic Devices and Circuits in the 3rd semester. It was the first time we encountered electronics as a standalone subject. The first two units focus on electronic devices and the underlying physics, but the real challenge starts with the last three units, which involve analyzing and designing circuits. The difficulty lies in remembering various assumptions for circuit analysis and design, as well as the many circuit diagrams involved. Instead of memorizing equations, it's better to focus on understanding circuit diagrams, which makes it easier to derive equations using basic laws. Scoring well in this subject is definitely achievable, but it requires more time and effort compared to other subjects.

4. Your insights on the importance of soft skills in today's world.

It's refreshing to see someone interested in developing their soft skills. You don't need to overcomplicate things–soft skills aren't as technical as what we often study. That said, it's crucial to develop them alongside your technical expertise. I recommend some great books, such as "Attitude is Everything, Influence, Why Has Nobody Told Me This Before?, and You Can Win" and many more..

In my opinion, the key to developing soft skills is to step outside of your comfort zone. Meet new people, experience different perspectives, and embrace the ups and downs of social interactions. This helps you evolve mentally and emotionally. You'll encounter many different personalities in life–some won't behave as you expect, and that's okay. The same applies to you. Just be yourself and let others be themselves. You'll learn a lot from working on projects and presentations with others. Remember, people can change, and circumstances often shape behavior. By understanding this, you won't set rigid expectations for how people should act, which has helped me a lot in navigating relationships with "familiar strangers." Best of luck.

ALUMNI CONNECT

REAL STORIES AND IMPACT!

Vidhi Priya, PG EEE'23

"I currently design industrial plants, specifically working on water and wastewater treatment facilities. My role involves creating detailed plant layouts and providing technical specifications to clients. A major part of my work focuses on the MV (Medium Voltage) and LV (Low Voltage) sides of the plant, ensuring that electrical systems are safe, efficient, and well-integrated into the overall design. ."

Harish, PG EEE'24

"I work as a hardware embedded engineer at Rayvector Technologies in Bangalore. Our company specializes in developing both hardware and software models for VR glasses, and I've been honing my skills in AI to improve these designs. Currently, I'm working on exciting projects focused on carbon generation ,verification of semiconductor chips for major companies like Intel. It's a dynamic role that bridges cutting-edge technology with real-world applications"

ALUMNI CONNECT

REAL STORIES AND IMPACT!

LEARNING HOW TO GET STUFF DONE

KRISHNA PRASAD S, (2007-2011)BATCH

As some of you internet savvy folks may have noticed, I totally stole this title from a video of former President Barack Obama (its a quick one-minute watch on YouTube, definitely worth checking out!). He talks about how important it is to be someone who gets things done, which I think is some of the most impactful advice you can get. But here s the thing – I was just as clueless about how to actually do that as anyone else. It took some serious thinking, and well, this article is the result. Hello, fellow SSN-ites! I am Krishna Prasad S, and I was an undergraduate student in the EEE department at SSN from 2007 to 2011. These days, I am working as an electrical engineer at Google in Mountain View, California, where I focus on antenna and EMC design for the Pixel smartphone. Big thanks to Dr. Leo for giving me this chance to share my thoughts and experiences with the students and faculty in the EEE department. I've heard a lot of people talk about how work can be boring, stressful, and just something you do to pay the bills. On the other hand, some people say you should just do what you love, and then it wont feel like work at all. But honestly, my own experience has been pretty different. I am at my happiest when I'm faced with a good challenge – not too much, but just enough to keep things interesting. Its what gets me out of bed every morning. For me, its boredom that can lead to feeling down. In this article, I'll share my approach to dealing with monotony, finding enjoyment in my career, and becoming someone who gets things done. I know a lot of you are still in college and wont be entering the workforce for a few years, but I think my advice applies no matter where you are in your journey.

ALUMNI CONNECT

REAL STORIES AND IMPACT!

Think things through

Let's say you're starting your first job or getting ready for your initial capstone project review. It might seem obvious, but what I mean is this: think about everything that could go wrong, write it down, and come up with your own plans to deal with those problems. In my first job after grad school, I was working on a solution to reduce unwanted electromagnetic emissions (also known as EMI) on a smart speaker product. This required a special type of inductor, and when I presented the solution to the teams involved, the project manager asked me if I had considered the lead time for the inductor and whether it would clash with the factory's assembly schedule. That was a big lesson for me in my first job – being a team player means not just having technical skills, but also making sure you've covered all the bases. From that point on, I learned that a solution isn't really a solution unless it addresses every potential issue.

Question everything

I have to admit, I never really asked questions in class when I was younger, and now I kind of regret it. At some point, I realized that I learn better when I ask questions – whether its to myself or to someone I am trying to learn from. When you take on a new challenge, the hardest part is figuring out the process. There will always be parts of this process that you're unsure about, and that's where asking questions comes in. A certain formula might solve a problem you have right now, but will it be enough for similar problems in the future? How can you be sure you have enough information to find every unknown? In college, most of the answers are tucked away somewhere in the textbook. But at work, the answers are often with specific people, and it might take a few meetings to get the information you need.

ALUMNI CONNECT

REAL STORIES AND IMPACT!

Learning to learn

Most of us are constantly learning something new. Think about trying to learn the lyrics to your favorite new song. If the audio is unclear, you might search the lyrics online, try tounderstand them, and then sing along. I think most things are learned in the same way.Recently, after spending almost 7 years working on similar problems, I decided to switch to anew team to tackle a different kind of problem – just for a change of pace. I was too curious to pass it up (and maybe those inspirational quotes about stepping outside your comfortzone got to me a little). The interview was a breeze, but the real challenge came afterward –I had to learn a ton of new things in a very short amount of time before I could start contributing. There were mountains of documents to read! The funny thing is, the words in those documents made sense individually, but when they were all put together, I just couldn't grasp it. I dozed off a few times before finally giving up for the day. I started working with the bare minimum of information I could understand, just enough to follow along in meetings and know what needed to be solved. And when I went back to those documents again, it all made so much more sense. It became clear to me that if I am not understanding something .I am reading, its not because its boring, but because I don't know what to do with all that information.

The best way to learn depends on what you're trying to achieve. Often, it means getting your hands dirty and diving in. Having the chance to learn on the job is a big part of staying happy and motivated. Otherwise, even if you're making a lot of money, you'll end up feeling like it can't buy happiness. To quote a mahaan in the EEE department, " Engineering is a circle." Sometimes you have to take a leap of faith and work towards what you want to do. It will all work out in the end.

ALUMNI CONNECT

REAL STORIES AND IMPACT!

Find little wins

In my first job, one of my mentors shared her secret to staying motivated. It was a simple piece of advice, but it completely changed my perspective. As a new grad, I was so excited about working on cool products that I would go home and spend my evenings running simulations on my computer. When things didn't go my way, I would get frustrated and try a million different things, which just made me stressed. By the end of the week, I was exhausted by Friday because I had poured all my energy into work by Thursday. Thats when she suggested not putting all my eggs in one basket – a classic piece of advice!

If you're stuck on a project, go run another mile at the gym; or give another attempt at making that perfect, crunchy and dusky-brown dosa. By having more things to focus on, you increase your chances of feeling successful. Believe it or not, those little wins give you the same dopamine rush as the big ones. This is probably all that comes to mind when I think about the patterns of successful engineers in the industry. From big-tech to little-tech, it's not the smartest of engineers who succeed. Rather, it is typically the ones that experiment and take on new challenges, who are willing to learn and unlearn when necessary, stay motivated long enough to achieve success for themselves and the companies they work for.

VISION & MISSION

OUR CORE ASPIRATIONS

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.