

HORIZON

The logo is a circular seal with a gold border. Inside, it features a central emblem with a figure and text. The words "ELECTRICAL CHAPTER" are written in a circle around the emblem, and "NSSCE" is at the bottom.

“Where light shines beyond limits”

AN EXCLUSIVE MAGAZINE BY
IE(I) ELECTRICAL CHAPTER NSSCE



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NSS College of Engineering
Palakkad

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IE(I) ELECTRICAL CHAPTER NSSCE 2024-25

INTRODUCES TO YOU
THE ANNUAL MAGAZINE

HORIZON



"Where light shines beyond limits"

Horizon 2025: Expanding the Vision of Aurora 2024.

About NSS College of Engineering



N S S College of Engineering, Palakkad is one of the most reputed, premier engineering educational institution in Kerala affiliated to APJ Abdul Kalam Technological University. It was established in 1960 by Nair Service Society under the leadership of late Bharatha Kesari Mannathu Padmanabhan. The college has an enviable heritage and legacy of grooming brilliant engineering professionals who later made their mark in industrial and other sectors of the country and abroad. At present, the institution offers B.Tech degree courses in six branches and M.Tech degree courses in Communication Engineering, Power Electronics, Computer Science & Engineering, Structural Engineering, Computer Integrated Manufacturing, and Biomedical Engineering. The College is an approved research place of APJ Abdul Kalam Technological University.

Department of Electrical & Electronics Engineering

Department of Electrical & Electronics Engineering is started in the year 1960. The department has established itself as one of the best and prestigious departments of NSS College of Engineering. The department has well experienced and committed faculty having specialization in different areas in Electrical and Electronics Engineering. The department is accredited by National Board of Accreditation AICTE. The department of EEE is offering B.Tech and M.Tech (Power Electronics) programmes. It has number of well equipped laboratories and provides excellent facilities for learning, research and development and consultancy works. Department periodically organises seminars, conferences, workshops, industrial visits and guest lectures are for the benefit of both the students and the faculty.

The Institution of Engineers (India)



The Institution of Engineers (India), or IE(I), is a professional engineering organization in India. It was established in 1920 and is headquartered in Kolkata. IE(I) promotes and advances the engineering profession in India, offering various programs, events, and publications. IE(I) has served the engineering fraternity for over a century, boasting a national and international presence through 125 centers, 6 overseas chapters, 7 fora, and the Engineering Staff College of India. It acts as a platform for engineers to exchange knowledge, network, and contribute to the development of the engineering community in the country.

About the Chapter



The Institution of Engineers (India) (IE(I)), Electrical Chapter NSSCE Palakkad started in 1990's, inspired from the largest multi-disciplinary professional body of engineers at its national level, is committed towards dissemination of ideas, information and knowledge in the frontier areas of science, engineering and technology through hosting of various technical activities at its various centers.

Beyond hands-on workshops and seminars, the society organizes industrial visits to prominent sites also. Moreover, the society actively engages in community fostering initiatives, exemplified by heartfelt visits to institutions such as schools for mentally challenged and many more. The spectrum of activities reflects the society's unwavering dedication to both academic and compassionate pursuits.

Connecting and Contributing: Insights from Our Principal about the Chapter



The IE(I) Electrical Chapter of NSSCE has been a cornerstone of learning, innovation, and professional excellence, and I am proud to extend my wholehearted support to this dynamic community. Your unwavering dedication to fostering knowledge, collaboration, and technical growth is truly commendable.

It is inspiring to see how this chapter continuously creates opportunities for aspiring engineers, equipping them with the skills and vision needed to navigate the evolving landscape of electrical engineering.

The launch of HORIZON 2025, the chapter's official magazine, is yet another testament to your dedication, offering a platform to showcase remarkable achievements, ideas, and insights.

I sincerely congratulate the chapter on its accomplishments and look forward to its continued success. May you keep driving innovation, strengthening bonds, and shaping the future of engineering with passion and purpose.

Dr. RAJEEV N
PRINCIPAL
NSS COLLEGE OF ENGINEERING

A Message From Our HOD



The IE(I) Electrical Chapter of NSSCE has consistently been a foundation for learning, innovation, and professional growth, and I am honored to offer my full support to this vibrant community. Your steadfast commitment to organizing meaningful events and promoting collaboration is truly admirable.

It is motivating to witness how this chapter consistently creates opportunities that help aspiring engineers develop into well-rounded professionals, prepared to tackle the challenges of the constantly changing electrical engineering landscape. I am confident that HORIZON 2025, the chapter's official magazine, will provide valuable insights and inspiration for students, highlighting the impressive efforts and achievements of this active community.

I take great pride in congratulating the chapter on its successes and wish you continued growth and prosperity in the future. Keep pushing forward, keep innovating, and keep inspiring!

Dr. SAJUN
HEAD OF DEPARTMENT
ELECTRICAL AND ELECTRONICS ENGINEERING
NSS COLLEGE OF ENGINEERING

Unveiling the Chapters Glory

A photograph of Dr. Leena N, a woman with dark hair, wearing a red patterned top, speaking into a microphone at a podium. In the background, there is a framed portrait of a man in a white kurta and a wall with a grid of small text or photos.

Dr. Leena N
Staff advisor
IE(I) Electrical Chapter

It is with great pride and genuine happiness that I express my thoughts as the Staff Advisor of this remarkable community. Throughout the years, I have observed your steadfast passion and commitment in transforming this chapter into a vibrant center of knowledge, collaboration, and innovation. Your unwavering enthusiasm has fueled our collective success, evident in the thought-provoking webinars, enlightening industrial visits, and engaging workshops we've experienced together.

Many of you may have joined this chapter with the goal of expanding your career opportunities and establishing professional relationships. However, what truly connects us is the significant impact of our shared experiences—the friendships we've built, the lessons we've gained, and the transformative journey of both personal and professional development. This sense of belonging and common purpose elevates our chapter beyond a mere platform; it has become a family that fosters potential and inspires ambition.

As we look back on the incredible journey of 2024-25, I am filled with admiration for our progress and excitement for the future. Let us embrace the new academic year with the same spirit of unity, curiosity, and innovation that characterizes us. Together, we possess the ability to inspire, empower, and create a lasting legacy.

Congratulations to all of you! I eagerly anticipate standing alongside you as we continue this amazing journey, breaking barriers and achieving new heights.

FROM THE EDITORS' DESK



BHAGYASREE N
CHIEF EDITOR

I am filled with great pride and excitement to introduce Horizon 25—a true reflection of the creativity, commitment, and unyielding quest for knowledge that characterizes our community. This edition is not merely a compilation of articles; it embodies the ideas, innovations, and dreams that guide our journey.

Every page showcases the enthusiasm of our contributors, the wisdom of our mentors, and the constantly changing world of technology and engineering. Through this magazine, we honor not only our accomplishments but also the spirit of curiosity and teamwork that drives us forward.

A sincere thank you to all who contributed, whether through their writing, ideas, or steadfast support. I hope Horizon 25 inspires, enlightens, and sparks new opportunities for everyone who reads it.

Bhagyasree N Chief Editor, HORIZON 2025

NANDANA J
CHIEF EDITOR



Welcome to this issue of our annual magazine - "HORIZON", a testament to the collaborative spirit that thrives within our community. Bringing you this collection of articles, exploring the various technical events conducted by the chapter has been a truly enriching process. From the initial sparks of ideas to the rigorous research and insightful writing, this magazine is a product of shared passion and dedication. We've seen students and future engineers come together, exchanging knowledge and pushing the boundaries of what's possible. The vibrant exchange of ideas, often fueled by the unique perspectives, is what makes Horizon truly special.

I extend my sincere gratitude to every contributor – your expertise and commitment that shines through on these pages. It's this collective effort that allows Horizon to be a platform for showcasing the innovative spirit and potential within our region and beyond.

We hope this issue inspires you and highlights the power of collaboration in driving technological progress.

Nandana Jayakumar Chief Editor, HORIZON 2025

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ROOM INAUGURATION

A New Spark of Innovation: IE(I) ELECTRICAL CHAPTER NSSCE Room Inauguration
Have you ever wondered where ideas transform into reality. Marking a new era of creativity and collaboration, the IE(I) ELECTRICAL CHAPTER NSSCE proudly unveiled its dedicated room – a vibrant space designed to ignite ideas, foster innovation, and empower future engineers.

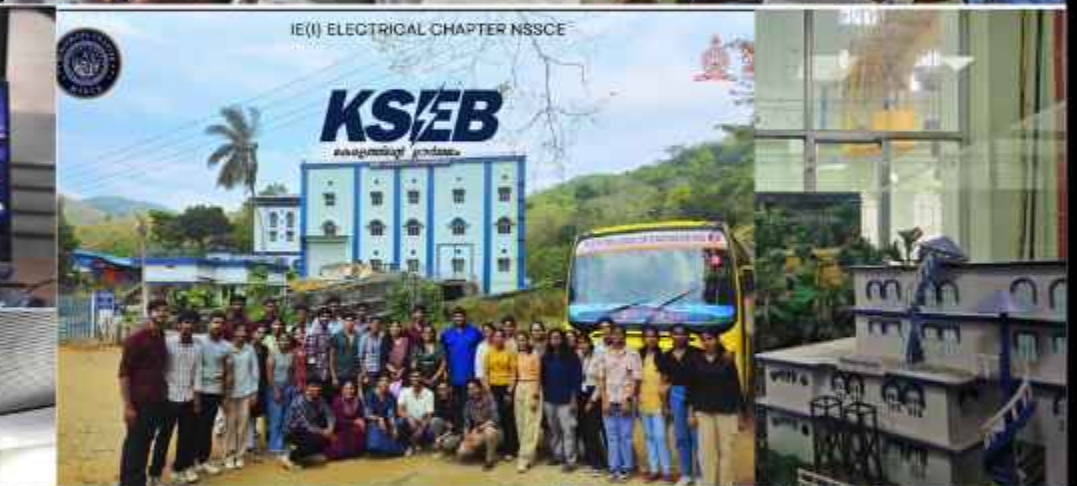


The inaugural ceremony was graced by Dr. Saju N, Head of the Department of Electrical and Electronics Engineering, who officially opened the room, symbolizing the chapter's growing presence and impact. The event was further honored by the presence of Dr. Rajesh Menon, Honorary Secretary of IE(I) Palghat Chapter.

Dr. Leena N, Staff Advisor of the IE(I) ELECTRICAL CHAPTER NSSCE, highlighted the chapter's dedication to nurturing technical skills and innovation among students. Adding further inspiration, Er. Rajappan encouraged students to seize the opportunities this new space offers.



This newly inaugurated room is envisioned as a hub where creativity meets technology – a place where ideas will spark, projects will thrive, and knowledge will flourish. The IE(I) ELECTRICAL CHAPTER NSSCE extends heartfelt gratitude to all who contributed to making this milestone a reality.



CONNECT'24: IGNITING INNOVATION AND EXCELLENCE

In a spectacular convergence of knowledge, and collaboration, CONNECT'24—the much-anticipated orientation for first-year students of the EEE Department—unfolded with remarkable enthusiasm on December 17, 2024. Organized by the IE(I) Electrical Chapter NSSCE, this event was more than just an introduction—it was an invitation to embark on a journey of exploration, innovation, and boundless opportunities.

The event kicked off with an inspiring Staff Advisor's Address by Dr. Leena N, who outlined the chapter's transformative role in nurturing technical prowess. A dynamic PowerPoint presentation painted a vivid picture of the chapter's evolution towards success.



The event also featured the much-awaited prize distribution ceremony for *CHRISTMAS CRYPTEX*, a thrilling aptitude-based competition held on December 13, 2024. Participants tested their problem-solving mettle in a challenge designed to ignite critical thinking and innovation. The winners were honored with certificates of excellence, celebrating their remarkable intellect and ingenuity.



The highlight of CONNECT'24 was an engaging resume-building workshop, spearheaded by Nandana Jayakumar, Creative Lead of IE(I) Electrical Chapter NSSCE. This session empowered students to craft compelling resumes, strategically positioning themselves for promising careers in the ever-evolving landscape of engineering. CONNECT'24 empowered students in igniting their drive to shape their futures and seize opportunities with the IE(I) Electrical Chapter, NSSCE.

FUTURE FORWARD: IGNITING INNOVATION. EMPOWERING CHANGE

What occurs when enthusiasm aligns with intention? Future Forward transcended being just an event; it served as a catalyst for innovation and a tribute to human-centered creativity. Organized by the IE(I) Electrical Chapter NSSCE on December 13, 2024, this dynamic competition brought together visionaries and innovators dedicated to creating a smarter, more sustainable future.



A Stage for Bold Ideas

The journey began on August 30, 2024, with an idea pitching competition themed Human-Centered Designs, challenging participants to create transformative, intuitive solutions. After a competitive online preliminary round, four teams—Breaking Minds, Gladiators, Technocrats, and Enlight—emerged as finalists.

After an electrifying pitch-off in the offline final round, Breaking Minds emerged as the champion, impressing the judges with their ingenuity, while Technocrats secured second place with their forward-thinking approach, and Gladiators claimed third place with a solution that combined creativity and practicality.

Celebrating brilliance, inspiring tomorrow

The winners were honoured by Dr. Saju N, Head of the Department, who presented them with cash prizes—not just as rewards, but as an investment in their bright futures. Beyond the trophies and accolades, Future Forward left a lasting impact. It wasn't just about competition—it was about pushing boundaries, sparking creativity, and proving that big ideas have the power to change the world.

This is just the beginning. The future belongs to those who innovate. Will you be next?



NATIONAL SEMINAR ON SMART GRID: CURRENT TRENDS & FUTURE



In a world rapidly transitioning toward smarter, more resilient power networks, the Two-day National Seminar on "Smart Grid: Current Trends and Future" became a beacon of insight and innovation. Hosted on 6th and 7th September 2024 by The Institution of Engineers (India), Palghat Local Centre, in collaboration with the Department of Electrical and Electronics Engineering and IE(I) Electrical Chapter, NSS College of Engineering, Palakkad, the event gathered industry leaders, academic experts, and forward-thinkers to discuss the evolution of smart grids and their transformative impact on the energy sector.



DAY 1

A Thoughtful Beginning

The seminar opened with a moment of solemnity—a prayer and tribute to the victims of the Wayanad landslide. Er. A V Rajappan, Chairman of the IEI Palakkad Local Centre, extended a warm welcome, setting the stage for an event that promised to reshape perspectives on power systems. In his presidential address, Dr. N. Rajeev,

Principal of NSS College of Engineering, underscored the urgency of smart grid technology in shaping a sustainable energy future. Dr. Sujith S, a professor in the Department of Electrical Engineering at NSSCE, provided an insightful preview of the discussions ahead, hinting at breakthroughs and challenges awaiting exploration.

Pioneering Insights & Expert Deliberations

The seminar's inaugural address by Er. C. Rethi Nair, General Manager at SRLDC, Grid Controller of India Limited, sparked a dialogue on the future of smart grids. The moment was further commemorated as Er. A Keshavan, IE(I) Chairman, presented the seminar souvenir to the Chief Guest, followed by Er. A V Rajappan honoring him with a memento—a symbol of the event's significance. The session concluded with a heartfelt vote of thanks from Dr. Rajesh Menon B., Honorary Secretary of the IEI Palakkad Local Centre.

The technical sessions that followed brought forth cutting-edge insights from leading experts. On Day 1, Er. R Ramar, Deputy Director at the National Power Training Institute, Alappuzha, dissected emerging smart grid trends, while Er. Ajit G Paul, Founder of Digital i2o, introduced attendees to the fascinating world of digital twin technology, a game-changer in smart grid transformation.



DAY 2

Day 2 featured discussions on critical power system advancements. Dr. Manas Kumar Jena from IIT Palakkad analyzed the challenges arising from increased inverter-based generation. Er. K. Madhana Mohan, emphasized the revolutionary role of synchrophasor technology in real-time wide-area grid monitoring and control. Concluding the day, Er. Nobin Mathew from Kalkitech provided a forward-looking perspective on orchestrating distributed energy resources to enhance grid stability and efficiency.



As the event drew to a close, the valedictory session, chaired by Er. A V Rajappan alongside Dr. Leena N, Advisor-IEI (Electrical) Student Chapter, provided a moment of reflection on the key takeaways and future directions. Dr. Nisha A S, Joint Secretary of the IEI Palakkad Local Centre, delivered the final note of gratitude.

A Collaborative Vision for Tomorrow

Beyond individual presentations, the seminar fostered an engaging panel discussion, encouraging collaborative thinking and cross-disciplinary innovation.



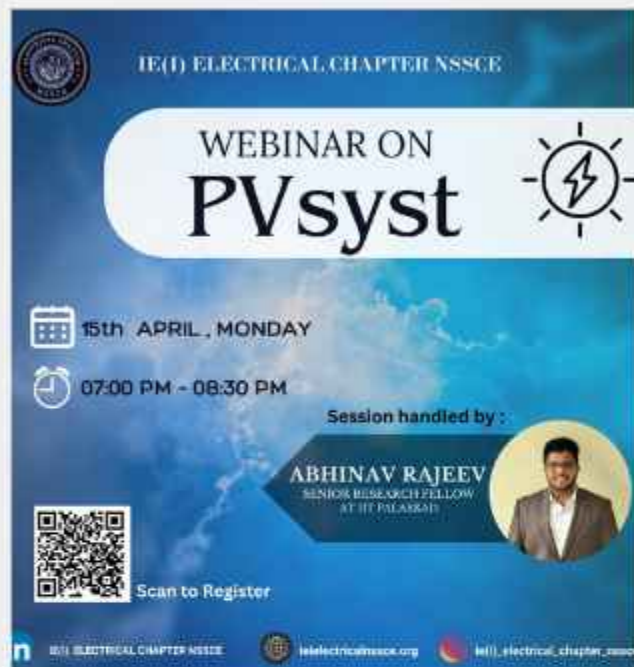
The Road Ahead

This seminar was more than an academic discourse—it was a call to action for engineers, researchers, and innovators to contribute to a smarter, more sustainable power ecosystem. With ideas exchanged and a renewed sense of purpose instilled, the event laid the groundwork for the future of energy.

The question now is:

Are you ready to be a part of the revolution?

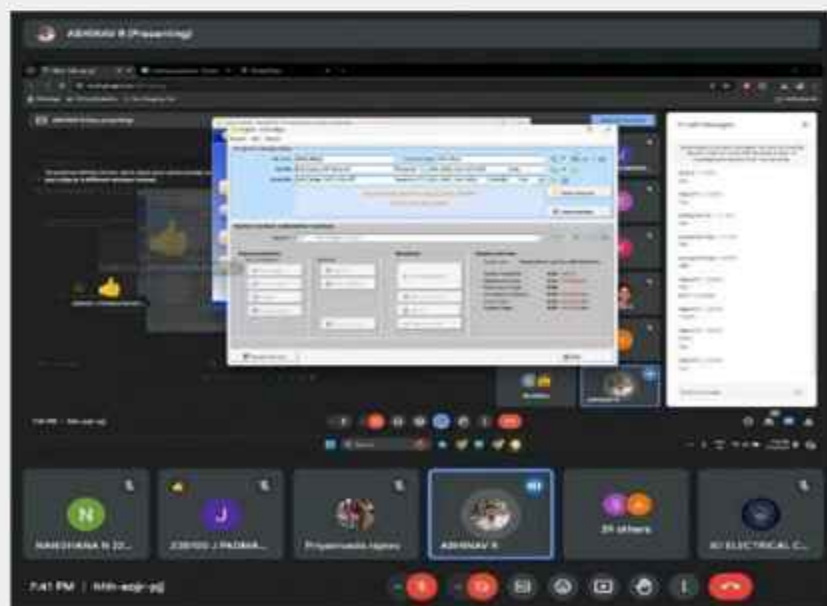
PVSYST INSIGHTS: EXPERT SOLAR ANALYSIS



In a world where clean energy is more crucial than ever, the IE(I) Electrical Chapter of NSS College of Engineering (NSSCE) lit up the evening of April 15th, 2024, with an electrifying webinar titled "PVsyst: A Gateway for Solar Simulation." With enthusiastic participants and dedicated volunteers buzzing with excitement, the event was a beacon of innovation and sustainability. The session was led by Abhinav Rajeev, Senior Research Fellow from IIT Palakkad and a esteemed alumnus of NSSCE. His expertise and passion illuminated the complexities

of PVsyst, a state-of-the-art simulation software for designing and analyzing photovoltaic (PV) systems. Participants were treated to a masterclass in evaluating the efficiency and feasibility of PV systems through practical demonstrations and interactive discussions, which made the session both engaging and informative. Events like these highlight the significance of solar power and its potential to revolutionize energy consumption.

The success of the webinar reflects the dedication of the organizers and the growing enthusiasm among participants to explore renewable energy solutions. In conclusion, the "PVsyst: A Gateway for Solar Simulation" webinar not only equipped participants with valuable skills but also inspired them to pursue further advancements in the field of solar energy.

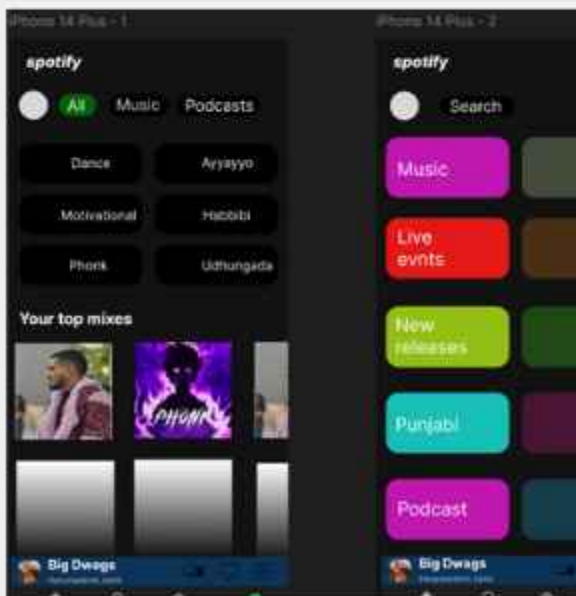
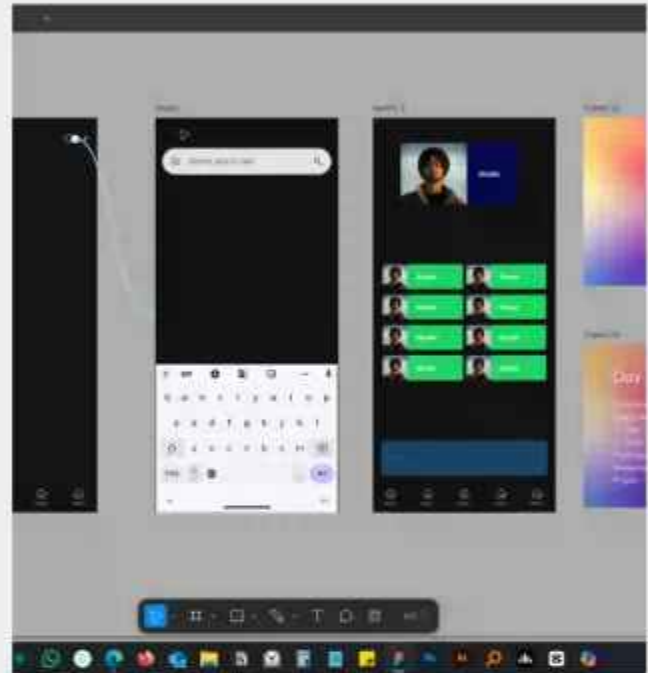


DESIGN SPRINT: FIGMA UI/UX WORKSHOP

"Design encompasses more than just appearance and sensation; it also involves functionality."

The IE(I) Electrical Chapter NSSCE recently made UI/UX design a reality through an engaging Figma Workshop. This two-day online event combined theoretical knowledge with practical experience, providing students with vital skills and a comprehensive grasp of Figma's robust design capabilities, readying them for the dynamic realm of digital design.

Muhammad Ajmal Najath, a fourth-year B.Tech student from M. Dasan Institute of Technology in Kozhikode, took the lead, skillfully navigating participants through the basics of UI/UX design in Figma as well as its advanced collaboration tools. His dynamic approach and live demonstrations made the learning experience enjoyable and educational. Over the course of two days, attendees delved into interactive prototyping, stylish interface design, and effective teamwork utilizing Figma's capabilities.



What distinguished the workshop was its engaging format—participants were involved in designing and addressing practical challenges to utilize Figma's tools in real-life situations. The positive feedback demonstrated their eagerness to delve deeper into Figma. Once again, the Chapter highlighted its dedication to merging technical abilities with creativity, transforming the workshop into an experience that went beyond merely learning a tool; it was about unleashing design and collaboration possibilities in the digital era.

ASSISTIVE TECH FOR AN INCLUSIVE FUTURE

In a world where technology is evolving at an exponential rate, one of the most impactful areas of advancement is assistive technology, designed to enhance accessibility and improve the quality of life for individuals with disabilities. On August 3rd, 2024, the IE(I) Electrical Chapter at NSSCE hosted a dynamic online webinar that took a deep dive into this transformative field. The event was organized in collaboration with the Kerala Engineers' Association, Bengaluru, and the Department of Electrical and Electronics Engineering at NSSCE. The program kicked off with an inspiring welcome address by Dr. Leena N, the Staff Advisor of the IE(I) Electrical Chapter, NSSCE, setting the tone for an educational and motivational session.



The poster features a green and white geometric background. At the top left are logos for KEA, NSSCE, and the Department of Electrical & Electronics Engineering. A photo of Dr. Mydhili K Nair is on the right. The text reads: 'KERALA ENGINEERS' ASSOCIATION BENGALURU IN COLLABORATION WITH DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING & IE(I) ELECTRICAL CHAPTER NSSCE'. The main title is 'WEBINAR ON ASSISTIVE TECHNOLOGY'. Below it, the session handler is listed: 'Session handled by: Dr. Mydhili K Nair, Professor and Founding Head, B.Tech(H) School of Computer Science & Engineering RV University'. The date and time are 'Saturday, 03 August 2024, 7.00 PM - 8.30 PM'. A QR code and a 'REGISTER NOW' button are at the bottom right. A link for more information is provided at the bottom: 'www.ielectricalinssce.org'.

KERALA ENGINEERS' ASSOCIATION BENGALURU
IN COLLABORATION WITH
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING
&
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NSSCE

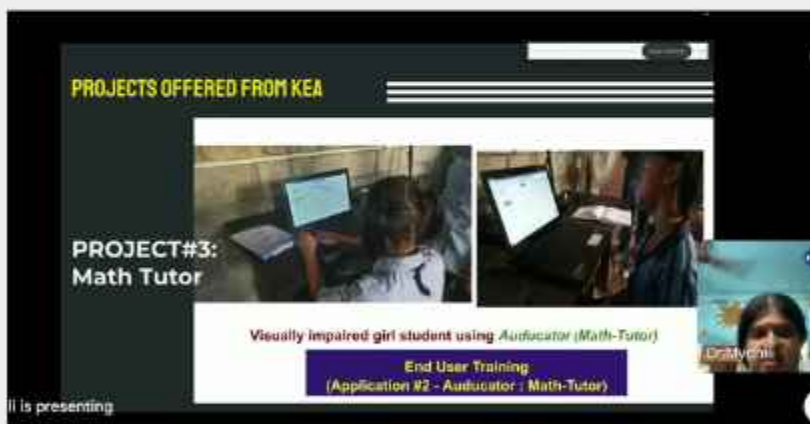
WEBINAR
ON
ASSISTIVE TECHNOLOGY

Session handled by:
Dr. Mydhili K Nair
Professor and Founding Head, B.Tech(H)
School of Computer Science & Engineering
RV University

Saturday, 03 August 2024
7.00 PM - 8.30 PM

MORE INFORMATION
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REGISTER NOW



Mr. Arjun SS, the President of the Kerala Engineers' Association, Bengaluru, also graced the event as the Chief Guest, emphasizing the role of technology in creating a more inclusive society. The speaker encouraged participants to ask questions and engage with everyone in an interactive format.

The Assistive Technology webinar deepened participants' understanding of this field and ignited a passion for contributing to its future. For those intrigued by how technology can shape a more accessible future, this session marked the beginning of a transformative journey.

CHRISTMAS CIPHER CHALLENGE: CRACK THE CRYPTEX

On December 13, 2024, the IE(I) Electrical Chapter at NSSCE brought an exhilarating blend of festive cheer and intellectual challenge to the campus with their captivating event, "Christmas Cryptex." The event seamlessly fused the warmth of the holiday season with critical thinking, logical reasoning, and teamwork—perfectly crafted to engage first-year students in a fun yet intellectually stimulating experience.

The competition kicked off with great enthusiasm, featuring a unique series of cryptic puzzles designed to test the participants' ability to think outside the box. The participants were tasked with unlocking hidden clues inside a Cryptex. The event unfolded in three exciting levels, each more challenging than the last, with each team hoping to make it to the final stage.

The first level, the Icebreaker, started off with the Teams being presented with 15 questions that ranged from verbal to non-verbal reasoning, with no time limit, allowing participants to carefully analyse and strategize. After this round, the top 10 teams advanced to the second level.



The Fastest Team First round kicked the intensity into high gear. This level had the teams facing 7 rapid-fire questions spanning both logical and verbal reasoning, each with a strict 1-minute time limit. The pressure was on, and only the top 4 teams made it to the final stage, where victory awaited.

The grand finale, the Christmas Cryptex, saw the final 4 teams squaring off in a true test of wits. With a single, complex question to answer, each team was given two chances to solve the puzzle. The atmosphere was electric, and after an intense and suspense-filled battle, Team "THEDUO" emerged as the victors, claiming the first prize for their outstanding teamwork and problem-solving skills.



The event was a celebration of learning, collaboration, and festivity, wrapped up in the magic of Christmas. The vibrant energy in the room, the collaborative spirit among teams, and the joy of problem-solving in a fun, holiday-themed setting made "Christmas Cryptex" an unforgettable experience.



IDEA PITCHING COMPETITION
FUTURE FORWARD

IET ELECTRICAL CHAPTER NSSC



ASTHRA 2.0



ASTHRA

ENRICH YOUR ARMOURY

HANDS-ON ARDUINO : FROM CONCEPT TO CREATION



A burst of inventive energy was unleashed at the Arduino Workshop on October 6th, empowering tech creatives. The facilitators were together between 9:00 AM and 4:00 PM, a time when the workshop was packed with people and activities, and it was really remarkable to see how many different projects could be achieved.

The workshop was a joint effort of the IE(I) Electrical Chapter NSSCE and IETE Palakkad Centre, and it was handled by Sir Suresh P, a highly esteemed person whose ability to make technical jargon sound interesting and convert it into simple-to-understand information is unparalleled.



Right from the start of his warm welcome address, Sir Suresh P made the beginning of the workshop a real attraction by communicating the basic concepts of the Arduino programming language in an easily understandable manner and thus, opened up the windows of participant's imagination as to the potential use of the gadget. His detailed instruction allowed them to understand the Arduino and ESP8266 microcontroller and easily made them comprehend hard concepts by letting them go through experiential activities.

They were able to sum up the day with the knowledge that not only had they mastered the Arduino basics, but they also felt a great deal of confidence that they could go out and conduct their innovative experiments all on their own. It had an effect on everyone because they were filled with excitement and were waiting for nothing better than exploring the Arduino and ESP8266 to the utmost. The "Arduino Programming Workshop" wasn't just another activity—it rather was a journey into the land of technology that not only animated minds, but it also opened the doors of future innovations.



KICAD: MASTERING CIRCUIT DESIGN



Deeply diving the world of printed circuit board (PCB) design, the IE(I) Electrical Chapter of NSSCE conducted an interesting hands-on workshop titled KiCad: A Ladder for 3D Design on January 25, 2025. The workshop sought to teach students to KiCad, a potent open-source tool, and provide tools to enable them to design their own PCBs.

Leading the workshop, Alumnus Abhiraj VS kicked off the event, setting the foundation for what would be an interesting and useful session, he showed its potential for both PCB layout and schematic capture. Rapidly shifting from theory to practice, participants explored the features of the program in real-time

This workshop was all about getting hands-on experience. Attendees designed their own PCBs from scratch—starting with schematics and moving on to layout optimization. They also checked out KiCad's cool 3D design features, which really helped them grasp the ins and outs of modern PCB design techniques.



Abhiraj's teaching animated the session, fostering a lively exchange. His hands-on techniques ignited both imaginative and analytical thinking, crafting a deeply rewarding learning experience.

Participants left the workshop not only with PCB design skills, but also with the confidence to bring their ideas to life with KiCad. The session's success kindled a real passion for electronics design, inspiring attendees to delve into KiCad's boundless possibilities.



FUSION 360: CAD/CAM ESSENTIALS



Innovative Minds Unite at NSSCE: A Hands-On Workshop on Fusion 360

On January 17, 2025, the IE(I) Students Chapter at NSS College of Engineering turned ideas into reality during an engaging hands-on workshop centered around Fusion 360, an advanced 3D design software that has become vital for today's engineering and prototyping needs.

Led by enthusiastic facilitators Sanal Sreekumar and Vipin PV, this workshop opened the door to the exciting world of Autodesk Fusion 360, which combines CAD, CAM, and CAE tools to transform the design and manufacturing industry. Participants dived into the details of 3D design, creating prototypes, and unlocking the potential of 3D printing for real-world applications.

What made this event truly special was its interactive style, which encouraged collaboration and networking among students and industry professionals alike. With 38 eager participants hailing from various departments, attendees engaged in lively discussions, particularly focusing on how Fusion 360 relates to 3D printing, a subject adeptly navigated by Vipin from Electrical and Electronics Engineering and Sanal from Mechanical Engineering.

Feedback from attendees was overwhelmingly positive, highlighting the vibrant discussions and insights shared between the session leaders and participants. This workshop not only provided students with key skills in a competitive environment but also nurtured a spirit of innovation and creativity that's bound to spark future projects.

As NSSCE continues to promote hands-on learning and collaborative exploration, events like the Fusion 360 workshop are empowering students to turn theoretical knowledge into real-world results, setting the stage for the engineers of tomorrow.



EXPLORING HYDROELECTRIC POWER: THE PORINGALKUTHU DAM VISIT



Propelling their educational horizons, a zealous group of students from IE(I) Electrical Chapter NSSCE, ventured to Poringalkuthu Dam, Thrissur, on March 1st, 2025. This meticulously organized industrial visit served as a transformative experience, bridging theoretical knowledge with the practical application of electrical engineering principles.



Engineers offered an in-depth presentation on the dam's building process, its function in water management, and its impact on the state's energy grid. The tour highlighted the size of the turbines and the accuracy required to manage water flow and produce electricity. Students examined the complex operations of turbines, control panels, and distribution systems, learning about the monitoring systems that maintain a reliable power supply.

By interacting with experts, they delved into practical operational issues, enhancing their knowledge of the industry. A lively question-and-answer session allowed professionals to eagerly address the student's inquiries.



This interaction clarified the complexities of maintaining such a large-scale operation and reinforced the importance of safety and efficiency. Ultimately, the Poringalkuthu Dam visit served as a powerful bridge between academic knowledge and practical application, enriching the student's understanding of hydroelectric power and inspiring them to pursue careers in the field.

AGILE & BEYOND: MODERN PROJECT MANAGEMENT INSIGHTS

In a thrilling session on February 22nd, 2025, the IE(I) Students Chapter at NSS College of Engineering orchestrated an insightful technical talk that brought the world of project management to life for aspiring engineers. This event featured the distinguished Shri S. Jayakrishnan, Additional Divisional Railway Manager (ADRM) of the Palakkad Division of Southern Railways.

The Speaker's presence was akin to a master conductor leading an orchestra, blending the symphony of his extensive 37-year experience in Indian Railways with the eager curiosity of students. With an opening note that resonated with Benjamin Franklin's wisdom, "If you fail to plan, you are planning to fail," the stage was set for a deep dive into the intricacies of project management.

The Speaker shared his expertise on project management in the railway sector. He delved into infrastructure development, electrification projects, and railway operations, offering profound insights into managing large-scale engineering projects. The interactive session saw enthusiastic participation from students. The Speaker addressed their queries on career opportunities, skill development, and the future of railway engineering, leaving attendees with a deeper understanding of the field.



By shedding light on the critical role of project management and its significance in engineering careers, this event inspired and empowered the next generation of engineers.



CAREER CONNECT : PLACEMENT TALK AT NSSCE

Cracking the recruitment code and launching a successful engineering career can often feel like a mystery. But on March 4th, 2025, the IE(I) Electrical Chapter of NSS College of Engineering (NSSCE), in collaboration with the Placement Training and Information Bureau (PTIB) NSSCE, brought clarity and direction to pre-final year Electrical and Electronics Engineering (EEE) students with an inspiring placement talk titled "Career Connect." Held at the PTIB Seminar Hall, the event created a buzzing atmosphere, filled with anticipation and enthusiasm.

The session featured a stellar lineup of speakers, each bringing their unique experiences and insights to the table. Among them were recent achievers, N A Anjali and Uthara R, who landed positions at Alstom; Meerakrishna R, now with TCS; Arya S, placed at L&T; and Nandana Jayakumar, who secured roles at both L&T and TCS. Their stories and practical advice offered students valuable guidance for navigating the recruitment process.



Throughout the interactive session, attendees gained insights into key aspects of placements. From excelling in aptitude tests to handling group discussions and crafting a standout resume, every topic was addressed with depth and relatability. The speakers also shared tips on making a strong impression during interviews, from confident presentations to handling tricky questions with effective answers.

"Career Connect" left a lasting impression, empowering attendees to take confident steps toward their career goals. By combining practical advice with motivational stories, the event proved to be a vital resource for those preparing to navigate the competitive world of placements.

EMPOWER - GROUP DISCUSSION COMPETITION

"EMPOWERED WOMEN EMPOWER THE WORLD."

On March 7th, 2025, the IE(I) Electrical Chapter of NSS College of Engineering, brought this thought to life with a spirited group discussion competition, "Empower." With a vibrant mix of enthusiastic students and dedicated volunteers, the event celebrated Women's Day by sparking meaningful conversations and raise awareness about gender-related topics. Participants were split into random groups and handed some really thought-provoking topics. Each group dove into their discussions, sharing ideas and showing off their communication skills and clarity of thought.



A panel of judges evaluated the participants based on their content, communication skills, and overall performance. In the end, Aparna B from class S4- EEEA stole the show with her standout teamwork, sharp thinking, and polished communication. Coming in second was Adithya Uknai from class S2- EEEA, while Sandra S and Srilakshmi P from class S2- EEEB tied for third with their amazing efforts.

The "Empower" event was more than just a group discussion—it was a celebration of ideas and voices. By promoting critical thinking, meaningful dialogue, and awareness, it truly captured the spirit of Women's Day.

PIXEL PERFECT: CANVA DESIGN MASTERY

Design is more than just aesthetics—it's about communication, impact, and creativity. Recognizing the growing need for strong visual content creation, the IE(I) Electrical Chapter at NSS College of Engineering recently hosted an engaging Canva workshop led by EH Akshay, the Design Head of the chapter. The session provided students with hands-on experience in creating visually appealing content with ease.

The workshop kicked off with an introduction to Canva's intuitive interface, where Akshay guided students through its wide array of design tools. From pre-made templates to customizable elements, participants quickly discovered how they could bring their ideas to life with minimal effort.

Moving beyond the basics, the session took a practical approach, allowing students to work on social media posts, posters, and professional presentations in real time. Along the way, Akshay introduced key design principles, including layout and composition, color theory, and typography. He emphasized how arranging elements effectively enhances readability, how choosing the right colors impacts visual appeal, and how typography plays a crucial role in improving clarity and aesthetics. One of the most engaging parts of the session was the interactive Q&A segment, where students had the opportunity to ask questions and receive real-time feedback on their designs.



The workshop was met with enthusiastic participation, with students praising its practical and engaging approach. Many found the skills acquired to be beneficial for academic, professional, and creative projects. With the growing importance of visual communication in today's digital world, workshops like these play a crucial role in empowering students with essential design skills. The IE(I) Electrical Chapter, NSSCE continues to foster learning beyond textbooks, ensuring that students are well-equipped to make an impact in the world of design and beyond.

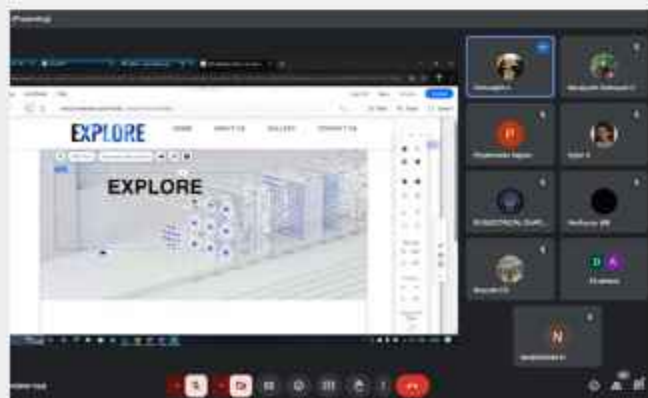


DEV BLOOM: MASTER WEBSITE DEVELOPMENT

In today's fast-paced digital world, having a strong online presence is no longer a luxury—it's a necessity. Recognizing this, the IE(I) Electrical Chapter NSSCE organized an engaging and hands-on online workshop on Wix website designing on 16th March 2025. Designed to unlock creativity and introduce students to the art of website building, the session was led by Navajyoth Satheesh C, Secretary, and Vishwajith K, Web Head of the chapter. The workshop aimed to bridge the gap between creativity and technology. Navajyoth kick-started the session by highlighting the significance of web design skills in today's digital landscape.

Following this, Vishwajith conducted an interactive technical demonstration, guiding participants through the process of creating a functional and visually appealing website. The session covered essential aspects of website design, including website structure and layout, customization and design using Wix's drag-and-drop features, content management, and optimization for better performance.

Participants gained hands-on experience in real-time website creation, allowing them to experiment with the platform and develop a deeper understanding of the design process.



With enthusiastic participants from various departments, the workshop proved to be a highly engaging and informative session. The event received overwhelmingly positive feedback, with students appreciating the clarity of instruction and the practical insights shared. By the end of the workshop, participants were not only equipped with a strong foundation in Wix website designing but also inspired to explore and create their own digital spaces.

With the success of this workshop, the IE(I) Electrical Chapter NSSCE continues its commitment to fostering technical skills and digital empowerment among students, paving the way for innovation and creativity in the field of website development.

*Pen
&
Palette*





KRISHNENDU K A
S4 EEE B



SREELAKSHMI C N
S6 EEE B



SREELAKSHMI C N
S6 EEE B



**VISHNU
PRASAD
S6 EEE B**



**SIVANI S
S6 EEE B**



**SANDRA
S4 EEE B**



**SANDRA
S4 EEE B**



KRISHNENDU K A
S4 EEE B



KRISHNENDU K A
S4 EEE B



PRIYAMVADA R
S8 EEE B



MIDHUN N P
S8 EEE B

PUPPETS

We are born in this world as puppets
Strings and threads accustomed to our mind
Every choice dictated by the palms of someone
Casting their spell on us
Enforcing their thoughts on our actions
On a stage called life
Not being able to acknowledge our own self
Try opposing those exertions
Try cutting those strings
Try setting our eyes on freedom
The stage alters itself from life to hell
And those evil palms will let us go
After all what are we
Just a puppet!

ADITYA R
S6 - EEEB

ഇരുട്ടിന്റെ പടികളിൽ നിന്ന്

ഇരുട്ടിന്റെ കണ്ണുകൾ താനെ അടഞ്ഞു.
ഇരുട്ടിന്റെ ഏകാന്തതയിൽ എന്നെ തേടി ആരോ
വരുന്നു....

ഞാൻ ഒറ്റയ്ക്കൊന്നോ?
പച്ച പരവദാനിയുടെ, കൈമുദ്ര എങ്ങുപോയി?
കറുത്ത ഭീമന്മാർ അങ്ങോട്ടുമിങ്ങോട്ടും
ഓടുന്നു....

കിളികളുടെ മൃഗുലമായ ശബ്ദത്തിന് പകരം
വച്ചാലുകളുടെ കീറലുകൾ.
എന്റെ തൊട്ടടുത്ത് പാൽപോലെ തലോടുന്ന
നദിയുടെ ശബ്ദം....

ഇരുട്ടെന്ന് കൈപിടിച്ച് ഉലക്കുന്നു...
ഇരുട്ടിന്റെ പടികളിൽ കാൽ വയ്ക്കുന്നതിനു
മുമ്പ് എങ്ങോ വെളിച്ചത്തിന്റെ തലോടൽ.
വെളിച്ചത്തിലേക്ക്...."

"മോളെ എണീക്ക് എത്ര സമയമായി...."
സ്വപ്നനിദ്രയിൽ നിന്ന് ഉണർന്ന്, അവളുടെ
കൈവിരലുകൾ തൊട്ട് പ്രഭാതത്തെ ചുംബിച്ചു. "
ഇരുട്ടിന്റെ പടികളിൽ നിന്ന്

EXPANDING HORIZONS



NANDHANA KRISHNAKUMAR
MDC

The past year has been nothing short of metamorphic for our organization, IE(I) Electrical Chapter, NSSCE. We've witnessed an extraordinary surge in membership, skyrocketing from 320 to 412 in total members, with around 100 members from last year alone - a testament to the vibrant community and invaluable opportunities we offer. This remarkable growth reflects the dedication of our members and the unwavering commitment to fostering a thriving environment.

My year as Membership Development Coordinator was demanding but an incredibly rewarding experience. Leading the effort to significantly grow our memberships required planning and tireless dedication. Seeing the chapter's remarkable expansion fills me with immense pride. This achievement reflects our collective effort, and I'm honored to have contributed to our vibrant community's success.

This influx of new members has infused our chapter with a fresh perspective, innovative ideas, and boundless energy. We've not only expanded our reach but also enriched the collective experience, creating a dynamic platform for learning, collaboration, and professional development.

Our chapter's success is a direct result of the collaborative spirit and shared passion that defines our community. We extend our heartfelt gratitude to each and every member who has contributed to this remarkable journey. Together, we are shaping the future of our youth minds.

FUTURE EVENTS

WORKSHOPS

- PCB Design : Crafting your own circuit fabrications.
- Connecting the World: Exploring the Internet of Things (IoT) Technologies
- From code to creation : Hands-On workshop on Arduino and embedded systems mastery.

COMPETITIONS

- Connecting with AI : The Chatbot Hackathon.
- Exploring future technologies : The idea pitch showcase
- Unlocking Analytical skills : The Aptitude and Reasoning Competition.
- Crafting innovative circuit designs : The circuit designing competition

WEBINAR

- Exploring EEE Scope : A first year insight Webinar.
- Exploring the Future of Electric vehicles : EEE Integration
- Exploring the Realm of Biomedical Electronics : EEE and Healthcare.
- Navigating the Startup Landscape : EEE Entrepreneurship in Tech

Adithya S · 2nd
Products & Solutions Executive @ HS Innovations Dept | Mr.
4mo

Excellent work, guys 🌟 Proud of you all! ❤️

vix_ch_mu · 2nd
1st

This workshop was one of the best workshop I ever attended. The mentor give as lot of valuable knowledge that was so helpfull in current semester. The session was very interesting. We are so grateful to the coordinators and IEI Electrical Chapters NSSCE for conducting the workshop.

Reply

madhumitha__bandas · 1st
1st

I would like to thank IEI Electrical Chapter NSSCE for conducting this quiz. Each levels were entirely different and covered every areas of knowledge. It was a great experience!

Reply

Sneha R S (She/Her) · 1st
Executive member of IEI ELECTRICAL CHAPTER NSSCE
3mo

This workshop, conducted by IEI ELECTRICAL CHAPTER NSSCE has been very useful as it helped to understand the very basic concepts of wiring.

Nima R · 1st
Assistant NSS Chapter of Engineering, Ponnaiyil
1st

"LT spice" - workshop was a good experience. The mentor was so amazing and she handled the session in a nice and smooth way. We thank our coordinators and IEI electrical chapter nssce for arranging the workshop and providing valuable knowledge.

creaking · 1st
1st

LT spice - workshop was a good experience. The mentor was so amazing and she handled the session in a nice and smooth way. We thank our coordinators and IEI electrical chapter nssce for arranging the workshop and providing valuable knowledge.

Reply

UTHARA R (She/Her) · 2nd
NSSCE | 2021 | 2023 | Electrical and Electronics Engineer
1st

It was an amazing experience participating in the quiz competition! I learned so much and had a great time. Thank you for organizing such a wonderful event.

JESHMA JAYADEVAN (She/Her) · 1st
B.Tech Graduate | Electrical and Electronics Engineer |
9mo · Edited · 1st

It's a great honour to receive this special award as an executive member of IEI ELECTRICAL CHAPTER NSSCE. I would like to thank all, who believed in me and joined me on this unforgettable journey!

Robith A · 1st
Recent Electrical Engineer Graduate
8mo · Edited · 1st

I am proud to have been a part of IEI ELECTRICAL CHAPTER NSSCE during the best four years of my student life. In my student life, I gained the most confidence and energy to speak in public after becoming a member of IEI. It help me to evolve into a responsible team player also.

A Malavika · 1st
GET at Alstom
8mo · 1st

It was an immense honour to be a part of the IEI ELECTRICAL CHAPTER NSSCE. The past four years of being in the IEI family have given me wonderful experiences. IEI has genuinely played a major role in shaping my career.

Nayana K M · 2nd
Student at NSS College of Engineering, Ponnaiyil
1st (archived)

Thank you IEI ELECTRICAL CHAPTER NSSCE for organizing such an insightful hands-on workshop on AutoCAD! It was a fantastic opportunity to enhance our skills. Looking forward to more exciting events in the future.

Ananya K · 2nd
Assistant NSS Chapter of Engineering, Ponnaiyil
1st

Thank you IEI ELECTRICAL CHAPTER NSSCE for organizing such a wonderful event. It was indeed a memorable experience. We were able to enrich our knowledge. The quiz was conducted in a well-structured manner so I would like to express my sincere gratitude to all the volunteers and members of IEI.

Vishwath K (he/him) · 1st
Executive member of IEI ELECTRICAL CHAPTER NSSCE
1st

It's been a quite good experience after becoming an IEI member. The Orientation program which has been conducted by our seniors was quite good and effective. The experiences shared by the passed out member of IEI and the IEI team members was helpful and so on. This helped to be an IEI member and as well as an executive member in the team.

RH Akshay (he/him) · 2nd
EVENT COORDINATOR IEI ELECTRICAL CHAPTER NSSCE
1st

I am thrilled to have had the opportunity to serve as the coordinator for AutoCAD. The workshop, it has been an immensely rewarding experience to work alongside our dedicated team and contribute to the success of this program.

As a coordinator, I focused on ensuring smooth communication and collaboration among team members, managing logistics, and overseeing the implementation of our program's objectives. Through effective

Mreerakrishna R · 2nd
Student at NSS College of Engineering, Ponnaiyil
1st

I want to express my heartfelt thanks to IEI Electrical chapter for giving me the chance to coordinate the Quiz competition. It was truly a pleasure to be a part of such a meaningful event. Congratulations to everyone involved in making it a success!

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nssce.iei@gmail.com



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ieielectricalnssce.org

