IEEE PES
Power & Energy Society®
Membership Development Committee

2025

INITIATIVES/PROJECT REPORT

IEEE PES
MEMBER DRIVEN INITIATIVES COMMITTEE

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About IEEE PES MDC

The IEEE Power & Energy Society is a global professional community dedicated to advancing power and energy technologies through technical leadership, education, and collaboration. The PES Membership Development Committee (MDC) plays a key role in strengthening the society by supporting members and chapters through strategic programs that promote professional growth, engagement, and global connectivity.

A flagship initiative of the PES MDC is the Member-Driven Initiatives (MDI) program, which provides financial support for projects proposed and led by PES members. The program empowers members to implement impactful initiatives that align with the PES mission while fostering leadership, innovation, and community engagement.

In 2025, the PES MDI program featured three funding calls to ensure broad participation and equitable resource distribution: the PES Day Call, MDI Cycle 1, and MDI Cycle 2. This structure enabled members to respond effectively to evolving technical, professional, and societal needs.

The PES Day Call supported activities celebrating IEEE PES Day, with a focus on public outreach, community engagement, and increasing awareness of the power and energy sector. These initiatives highlighted the societal impact of energy technologies and the role of PES in advancing sustainable development.

MDI Cycle 1 and MDI Cycle 2 served as the core funding cycles, supporting diverse member-led projects including student and young professional engagement, industry–academia collaboration, technical training, and outreach activities. Through these initiatives, the 2025 MDI program strengthened chapter vitality, enhanced member engagement, and reinforced the global impact of PES in advancing technology for the benefit of humanity.

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MDI-25-010-R10

IEEE PES Day Celebration: Interactive session with Industry Experts on “North Eastern Regional Power Grid of India: Overview, Recent Developments, and Research Opportunities”

Region	: 10
Section	: IEEE Kolkata Section, India
Type of Chapter	: PES Professional Chapter
OU	: IEEE PES Kolkata Section Chapter
MDI Leader	: Dr. Sanjib Ganguly

Event Summary *(Minimum 200 words)*

IEEE PES is committed to the development of power and energy systems for the society around the globe. This needs consistent research and development and also collaboration among the people working in academia and industries. The proposed event is an attempt to have knowledge exchange among the engineers managing the North-eastern regional power grid of India with academic experts in this region. The North-eastern regional power grid of India is located in a geographically challenging area. IEEE PES Guwahati chapter, a newly opened PES professional chapter, located in North-east India can facilitate this collaboration further with the similar initiatives. The event was started with a technical talk of Mr. Kishore Kalita, an engineer of North eastern regional load despatch centre of Grid India in the seminar hall of Department of Electronics and Electrical Engineering, Indian Institute of Technology Guwahati, Kamrup, Guwahati, Assam, 781039, India. Mr. Kalita provided a brief overview on the Northeastern Regional Power Grid of India and also enlightened the audience on the recent developments and research opportunities of Indian power grid. A number of faculty members and research students were the participants of the event. After the talk, there was an open forum discussion with the speaker by the participants.

Detailed Event Report

1. Event Description:

The North Eastern Regional Load Despatch Centre (NERLDC), a vital component of India's national power grid, plays a crucial role in ensuring the reliable and secure operation of the NER Grid. This talk will provide an insightful overview of the Indian power system's evolution, with a focus on the operational dynamics, recent technological advancements, Implementation and Operational Experience of Main 1 & Main 2 Control Centres and unique challenges of the North Eastern Region. Highlights will include cross-border interconnections, Renewable Integration, PMU-based oscillation Source Identification (OSI) Tool development and implementation, NER Power system protection challenges and strategies, Demand/Solar Generation Forecasting, Inertia Estimation based on PMU signal, Improving the existing linear state estimator's bad data detection capability using the prediction of the system states, Intra-Day Ahead Resource Adequacy Analysis and various collaborative research initiatives. The session aims to foster academia-industry synergy and explore future opportunities in power system operations and real-time grid management.

Speaker biography: Mr. Kishore Kalita was born in Bongaigaon, Assam, in 1996. He completed B.Tech in Electrical Engineering at the National Institute of Technology, Silchar, in 2018. After graduation, he joined the North Eastern Regional Load Despatch Centre, Grid Controller of India Ltd. (formerly POSOCO), as an engineer. He worked in real-time operations of the North Eastern Regional Grid for five years, which involved real-time decision-making, analysis of grid scenarios, and taking appropriate actions to mitigate risks to the integrated power system. He also served as a member of the regulatory team at NERLDC, where my responsibilities included providing feedback, comments, and analysis on new regulations notified by the Hon'ble Central Electricity Regulatory Commission. Email: kishore@grid-india.in Address:North Eastern Regional Load Despatch Centre, Grid Controller of India Ltd., , Assam, India

The chronology of the event is as follows: (1) Welcome address of the Chair of IEEE PES Guwahati Chapter (2) Felicitation of the Speaker from the North Eastern Regional Load Dispatch Center (NERLDC) of India: Speaker's name, Mr. Kishore Kalita, Engineer of North Eastern Regional Load Desptach Centre, Grid Controller of India Limited. (3) A talk on "North Eastern Regional Power Grid of India: Overview Recent Developments, and Research Opportunities" by Mr. Subhash Kumar, Engineer of NERLDC: 75 minutes (4) Question and Answer: 30 Minutes (5) Hi-Tea

2. Participants:

- Total Participants: 34
- IEEE Members: 33
- PES Members: 27

3. Activities Conducted:

- Welcome address of the Chair of IEEE PES Guwahati Chapter.
- Felicitation of the Speaker from the North Eastern Regional Load Dispatch Center of India: Speaker's name, Mr. Kishore Kalita.
- A talk on "North Eastern Regional Power Grid of India: Overview Recent Developments, and Research Opportunities" by Mr. Subhash Kumar, Engineer of NERLDC: 75 minutes
- Question and Answer: 30 Minutes
- Hi-Tea

4. Outcomes & Impact:

The IEEE PES Day Celebration session successfully strengthened academia–industry interaction by providing participants with practical insights into the operation, challenges, and recent technological developments of the North Eastern Regional Power Grid of India. The talk enhanced participants' understanding of real-time grid operation, renewable energy integration, PMU-based applications, forecasting, and system protection, while highlighting several industry-relevant research opportunities. The interactive discussion encouraged students and researchers to align their academic work with practical power system challenges and reinforced the role of the IEEE PES Guwahati Chapter in promoting collaborative research and professional development in the North-East region.

5. Feedback & Testimonials (optional):

Participants, especially students and research scholars, expressed strong appreciation for the session, noting that the speaker's real-world experiences helped bridge the gap between theory and practice. Students found the discussion on real-time grid operation, control center functioning, and emerging research areas highly motivating and informative, with many stating that the session inspired them to pursue applied research and career opportunities in power system operation and grid management.

Photo Section

MDI-25-018-R10

URJJA- SEVA: ENERGY MANAGEMENT AWARENESS PROGRAM

Region	: 10
Section	: IEEE Kerala Section, India
Type of Chapter	: PES SBC
OU	:IEEE PES SBC Carmel College Of Engineering And Technology
MDI Leader	: Sreya B

Event Summary *(Minimum 200 words)*

The "Urjja Seva" event, an Energy Management Awareness Program, was organized by the IEEE Power & Energy Society Student Branch Chapter of CCET in collaboration with IEEE PES Kerala Chapter on April 23, 2025. The event aimed to spread awareness on energy management and sustainability among students, with a focus on practical knowledge and community outreach. Thirty-nine student members participated in the event, which included sessions on energy saving hacks, KSEB bill analysis, and hands-on training with the Energy Efficiency Demonstration Kit.

The event featured notable speakers, including Asst. Prof. Vishnu S, who delivered a session on energy saving hacks and KSEB bill analysis, and Dr. Sherly P Anand, who delivered a keynote session on carbon neutrality. The hands-on training session, led by IEEE PES CCET senior students, provided participants with practical experience in energy management and sustainability. The event's outcomes included a deeper understanding of energy conservation practices, renewable energy integration, and the importance of energy management in achieving carbon neutrality. The participants gained firsthand experience with components, connections, and Arduino programming, effectively refreshing their concepts of energy management.

The event aligned with the PES mission by providing professional development, student engagement, and technical training. The event's focus on energy management and sustainability also highlighted its potential impact on diversity, equity, and inclusion (DEI) by promoting sustainable practices that can benefit diverse communities. The event was successful in achieving its objectives, with participants providing positive feedback. The hands-on training and interactive sessions were particularly effective in engaging students and providing them with practical knowledge. Overall, the event was a success, and its impact is expected to cascade down to the community as the student participants share their knowledge and skills with others.

Detailed Event Report

1. Event Description: Urjja Seva – an Energy Management Awareness Program, a PES MDI–funded IEEE PES Day event, was organized by the IEEE Power & Energy Society Student Branch Chapter of CCET in collaboration with the IEEE PES Kerala Chapter on 23 April 2025. The event, held in the Electrical Tutorial Room, witnessed active participation from 39 student members.

The program commenced at 10:30 AM with an inaugural address by Asst. Prof. Vishnu S, Advisor of IEEE PES SBC CCET, who highlighted the importance of IEEE PES and the PES Day 2025 theme. He also delivered a session on Energy Saving Hacks in Everyday Life and KSEB electricity bill analysis, helping students understand household energy consumption patterns and effective energy management practices.

The second session featured IEEE PES CCET senior students introducing the Energy Efficiency Demonstration Kit, Arduino programming, energy conservation practices, renewable energy integration, and a comparative study of incandescent, CFL, and LED bulbs. A hands-on session followed, where participants measured and compared current consumption of LED and incandescent bulbs, gaining practical exposure to energy-efficient technologies.

Post lunch, student seminar presentations on the Importance of Energy Management in Carbon Neutrality set the stage for the keynote address by Dr. Sherly P Anand, Retired Principal of SN Women's College, Kollam. Her insightful talk on carbon neutrality led to an engaging Q&A session. The event concluded with participant feedback, a vote of thanks, and a group photo session, successfully fulfilling its objective of promoting energy management awareness and sustainability among students for wider community outreach.

2. Participants:

- Total Participants: 51
- IEEE Members: 27
- PES Members: 25
- Students / YP / Professionals:12 faculties of EEE Department

3. Activities Conducted:

- Workshops:Hands on Training on Energy Management Demonstration Kit Development
- Technical Talks: By Vishnu S & Dr. Sherly P Anand

4. Outcomes & Impact:

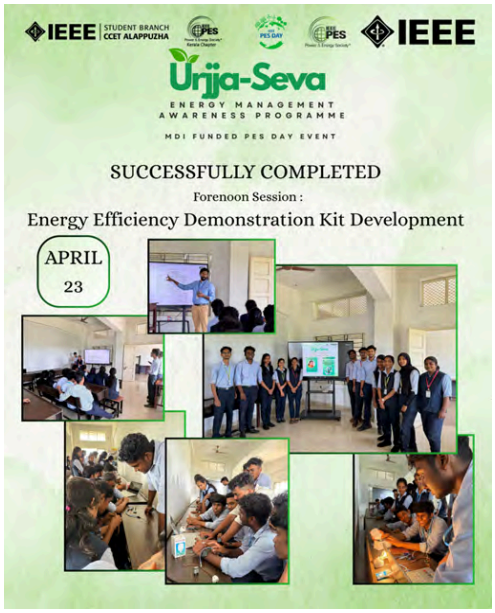
The Urjja Seva event successfully enhanced awareness of energy management and sustainability among 39 student participants. Hands-on training using the Energy Efficiency Demonstration Kit

strengthened practical understanding of energy conservation, renewable energy integration, and carbon neutrality. The event promoted teamwork and volunteer engagement through active involvement of senior IEEE PES members and highlighted effective chapter collaboration with the IEEE PES Kerala Chapter. Knowledge sharing through seminars and the keynote session enabled participants to gain insights and prepare for cascading the learning to the community. Overall, the event met its objectives and is expected to contribute to sustained awareness and community outreach in energy management and sustainability.

5. Feedbacks & Testimonials

Participant feedback was highly positive, highlighting the overall success of the Urjja Seva program. Students appreciated the practical sessions on household energy-saving tips, KSEB bill analysis, and hands-on demonstrations using the Energy Efficiency Demonstration Kit and Arduino. The LED versus incandescent bulb comparison improved understanding of real-time energy consumption, while the keynote on carbon neutrality inspired participants to adopt and promote sustainable energy practices. Overall, the event was considered informative, engaging, and effective in raising awareness on energy management and sustainability.

Photo Section



MDI-25-009-R08

PES Day Szczecin 2025 - Technical Trip

Region	: 08
Section	: IEEE Poland Section
Type of Chapter	: PES SBC
OU	:SBC17141A - West Pomeranian Univ of Tech Szczecin, PE31
MDI Leader	: Pawel Prajzendanc

Event Summary *(Minimum 200 words)*

To celebrate IEEE PES Day, the IEEE PES Student Branch Chapter at the West Pomeranian University of Technology in Szczecin organized a one-day technical and educational event on April 24, 2025. The event brought together around 30 participants from the West Pomeranian University of Technology and the Maritime University of Szczecin, combining professional development, technical education, and student engagement in alignment with the IEEE PES mission.

The program began with an introduction to the activities of IEEE and the Association of Polish Electrical Engineers (SEP), highlighting the role of international collaboration and innovation in the energy sector. This was followed by a technical lecture by Prof. Maciej Kozak titled "Energy Distribution on a Ship with Direct Current," which provided valuable insights into modern DC-based maritime power systems.

Participants then attended a wind turbine demonstration showcasing renewable energy technology, followed by a visit to the MUSTC Academic Training Center, where they experienced a realistic maritime storm simulation illustrating the challenges of offshore operations. An industrial visit to Elektryka Morska introduced participants to advanced generator and battery systems used in electric vessels. The event concluded with a networking lunch, encouraging discussion and knowledge exchange. The strong participation and positive feedback confirmed the event's success in promoting experiential learning and strengthening the local IEEE PES presence.

Detailed Event Report

1. Event Description:

The IEEE PES Day 2025 event was organized by the IEEE Power & Energy Society Student Branch Chapter at the West Pomeranian University of Technology in Szczecin, in collaboration with the Maritime University of Szczecin, with the objective of promoting awareness of sustainable energy solutions, strengthening the local IEEE PES presence, and engaging students through interdisciplinary and hands-on technical learning. The event was carefully planned over a two-month period by a joint team of students and faculty advisors and was widely promoted through university mailing lists, social media platforms, campus posters, and direct outreach to

student organizations to attract participants from both electrical and maritime engineering disciplines.

The program commenced with opening presentations introducing IEEE and the Association of Polish Electrical Engineers (SEP), emphasizing their roles in fostering innovation, professional development, and collaboration within the energy sector. This was followed by a technical lecture delivered by Prof. Maciej Kozak titled “Energy Distribution on a Ship with Direct Current,” which provided in-depth insights into modern DC-based marine power systems, energy management strategies, and their relevance to future sustainable maritime operations.

To complement the academic content, the event included multiple experiential learning activities. Participants observed an on-site wind turbine demonstration, highlighting the practical implementation of renewable energy technologies. A visit to the Maritime University Storm Training Center (MUSTC) allowed attendees to experience a high-fidelity maritime storm simulator, offering a realistic perspective on the electrical, operational, and environmental challenges faced during offshore operations. Additionally, an industrial visit to Elektryka Morska enabled participants to explore advanced battery systems, generators, and electrical solutions used in electric and hybrid vessels, guided by industry professionals.

The event concluded with a networking lunch that encouraged informal discussions, knowledge exchange, and professional interaction among students, faculty members, and industry experts. Overall, the program successfully combined academic lectures, practical demonstrations, and industry exposure, reinforcing the IEEE PES mission of inspiring and educating the next generation of engineers through innovation, collaboration, and real-world learning experiences.

2. Participants:

- Total Participants: 33
- IEEE Members: 14
- PES Members: 08
- Students / YP / Professionals: non-IEEE Members [25/4/4], IEEE Members [9/3/1]

3. Activities Conducted:

- Workshops / Hands-on Activities: No formal workshops were conducted; however, the wind turbine demonstration and guided visits to Elektryka Morska provided interactive, hands-on learning on renewable and maritime energy systems.
- Technical Talks: Technical lecture by Prof. Maciej Kozak on "Energy Distribution on a Ship with Direct Current."
- IEEE & SEP Introduction: Presentations highlighting the role of IEEE and SEP in fostering international collaboration and innovation in the energy sector.
- Networking Sessions: The closing lunch served as an informal networking platform for technical discussions and professional interaction.
- Outreach Activities: Joint organization with the Maritime University of Szczecin enabled inter-university participation, broader outreach, and increased visibility of IEEE PES.

4. Outcomes & Impact:

The IEEE PES Day 2025 event enhanced the visibility of PES among students from two local universities and generated interest in IEEE and PES membership. It strengthened collaboration between the West Pomeranian University of Technology and the Maritime University of Szczecin, paving the way for future joint initiatives. Hands-on exposure to real-world technologies, including the maritime storm simulator and marine battery systems, provided valuable practical learning. Strong volunteer involvement and positive feedback highlighted the event's success in promoting student engagement and professional development aligned with the PES mission.

5. Feedbacks & Testimonials

"The storm simulation at MUSTC was an unforgettable experience — I've never seen anything like it. It really showed how important reliable energy systems are in extreme conditions."

— Student, West Pomeranian University of Technology

"The technical lecture on DC systems by Prof. Kozak helped me understand how energy distribution works on ships. It made me want to explore this field more deeply."

— Student, West Pomeranian University of Technology

"It's essential that students see the practical side of our field. I was glad to contribute and share the relevance of DC systems in maritime applications."

— Prof. Maciej Kozak, Dean, Faculty of Mechatronics and Electrical Engineering, Maritime University of Szczecin

"Although I'm not currently an IEEE member, this event inspired me to join PES and propose a new student project related to hybrid ship power systems. The energy and engagement were impressive."

— Faculty member, Maritime University of Szczecin

Photo Section

MDI-25-017-R08

IEEE PES DAY 2025 EVENT For Aegean Region

Region	: 08
Section	: IEEE Turkiye Section
Type of Chapter	: IEEE Izmir Katip Celebi University SB
OU	:STB03106 - Izmir Katip Celebi University
MDI Leader	: Melih Sezgin Girgin

Event Summary ***(Minimum 200 words)***

In celebration of IEEE PES Day 2025 and its global theme “Empowering a Sustainable Future”, IEEE IKÇÜ PES Student Branch organized a multi-faceted series of events aimed at increasing awareness on clean energy technologies and strengthening student engagement through hands-on and professional development activities. Our program included:

- Solar Cell Circuit Workshop: A technical, hands-on training session where participants built and tested circuits powered by solar cells. The workshop aimed to improve students’ practical understanding of renewable energy systems and circuit design.
- Technical Visit to ENERCON İzmir: Participants had the opportunity to tour the wind turbine blade production facility of ENERCON, a global leader in wind energy. The visit provided invaluable industry exposure and fostered dialogue between students and professionals in the renewable sector.
- Virtual PES Day Summit Participation: Our members joined the Region 8-wide virtual summit featuring international speakers such as Prof. Mini Shaji Thomas and young professionals 2 including Enwereuzo Chinemerem and Okeke Blessed. Discussions focused on leadership, entrepreneurship, and future trends in sustainable power systems.

Target Audience included undergraduate and graduate engineering students, especially those interested in renewable energy, electronics, and power systems.

Outcomes & Impact:

- Strengthened technical knowledge through real-world applications
- Increased IEEE PES visibility at the university and local community
- Promoted diversity and inclusion by welcoming participants from various academic years and backgrounds
- Boosted motivation for future PES initiatives and chapter activity

Challenges, such as aligning event schedules with academic calendars, were managed through early planning and hybrid formats. Ultimately, PES Day 2025 at IKÇÜ stood out for its practical relevance, interdisciplinary collaboration, and strong alignment with the PES mission: fostering technical innovation, professional development, and global energy sustainability.

Detailed Event Report

1. Event Description:

Background and Goals:

IEEE IKÇÜ PES Student Branch organized a multi-dimensional celebration for IEEE PES Day 2025 with the aim of increasing awareness around renewable energy, promoting professional development, and encouraging technical collaboration among students. The planning process began months in advance and included coordination with national and international IEEE branches.

Goals:

- Empower students through technical training and industry exposure
- Foster collaboration with PES chapters across different regions
- Highlight the role of sustainable energy solutions

Promotion was carried out via social media, university channels, WhatsApp groups, and official IEEE mailing lists. Posters and banners were prepared and shared widely

Timeline and Planning:

Planning for the event began approximately two months in advance. The organizing team, composed of students and faculty advisors, defined the scope of the event, contacted speakers, arranged technical site visits, and coordinated logistics. A detailed schedule was prepared to ensure smooth transitions between sessions and optimize engagement.

Promotion:

The event was promoted via university mailing lists, social media platforms (Facebook, LinkedIn), printed posters on campus, and direct invitations to student organizations. The promotional campaign emphasized the unique opportunity to combine technical learning with practical demonstrations, aiming to attract a diverse audience from both electrical and maritime engineering backgrounds.

2. Participants:

- Total Participants: 60
- IEEE Members: 20
- PES Members: 20
- Students / YP / Professionals: 50/ 08/ 02

3. Activities Conducted:

- Workshops: Solar Cell Circuit Workshop
- Technical Talks: During Virtual Summit Sessions
- Panel Discussions: Region 8 PES Virtual Panel
- Networking Sessions: Between local and international PES branches
- Outreach Activities: Technical visit, collaborative events with international SBCs
- Competitions: Not conducted during this edition

4. Outcomes & Impact:

- Increased visibility of IEEE PES at IKÇÜ
- International collaboration with chapters in Tunisia, UK, Nigeria, and Türkiye
- Strengthened technical skills of participants through hands-on training
- Volunteer engagement increased, especially from first-year students
- Non-members showed interest in joining IEEE and PES after the events
- Supported PES mission in technical training, student engagement, and DEI outreach

5. Feedbacks & Testimonials

While formal feedback was not collected via forms, verbal responses included:

➔ “The workshop helped me understand solar circuits better than any class session.” – Undergraduate Participant

➔ “Visiting ENERCON made me realize how much engineering goes into clean energy.” – Final year student

➔ “Connecting with PES members from Africa and Europe during the summit was a great motivation.” – IEEE Volunteer

Photo Section

MDI-25-057-R10

Energy Transition and Decarbonization Opportunities to achieve Net Zero -Workshops and Expert talks

Region	: 10
Section	: IEEE Pune Section
Type of Chapter	: PES Professional Chapter
OU	: PES-IAS Chapter , Pune Section, 411051, R10, India (Pune Section Jt. Chapter, PE31/IA34-CH10593)
MDI Leader	: Dr Surekha Deshmukh

Event Summary *(Minimum 200 words)*

IEEE PE-IAS Chapter of IEEE Pune Section has conducted a series of events to celebrate PES Day under MDI proposal with a vision to highlight the remarkable transformation in the Smart Grid and Electricity industry.

In collaboration with IEEE PES Student Branch Chapter, Department of Electrical Engineering, JSPM's Rajarshi Shahu College of Engineering, Student branch of AISSMS' IOIT , Pune, Industry expert Technical talk, Panel discussion and Ideathon were organized on 22nd April 2025. The total gathering of over 220 students, 15 faculty members, 9 industry professionals made PES Day celebration a success.

The activities benefited students as well as academia in terms of creating awareness of Lighting industry, energy efficiency, Green Technology, Green and Low Carbon Energy Sources, initiatives and policies of Government in encouraging local community to become prosumer, grid integration of renewable sources, energy storage and digital technologies.

The industry experts conducted a hands-on workshop to guide girl-students on the opportunities and capacity building. Which as aligned with the vision, mission of IEEE PES and increase interest to align with the IEEE *via student engagement, DEI impact, technical training*.

Detailed Event Report

1. Event Description:

PES-IAS Chapter conducted 3 events on 22nd April to celebrate PES Day.

A. Technical Industry Talk- Field of Lighting Design
B. Panel discussion - Opportunities for girl students in era of Energy Transition
C. Ideathon- Energy Efficient and Sustainable Campus

A. Technical Industry Talk:

The IEEE PES Student Branch Chapter at the Department of Electrical Engineering, JSPM's Rajarshi Shahu College of Engineering, in association with the IEEE PES-IAS Chapter Pune Section, celebrated IEEE PES Day on 22nd April 2025.

Ekta Sanghvvi, Managing Director of Lighting Concepts Pvt. Ltd., Lighting Designer and Consultant, Member of FICCI FLO, and Mentor of Change - AIM NITI Aayog, delivered an expert session on "Introduction to the Field of Lighting Design." Her session focused on the essential integration of natural and innovative lighting systems while promoting resource conservation. The lecture explored innovations in lighting that continue to inspire designs which harmonize with both natural environments and modern architectural needs. Students and faculty members greatly benefited from the valuable insights shared by Ms. Ekta Sanghvvi.

Following the expert session, Mr. Nikhil Chaware, Student Chair of the IEEE PES SBC, conducted a quiz, adding an engaging and interactive element to the celebration. The event was attended by Prof. Manjusha Kanawade, Faculty Advisor & Secretary of IEEE PES-IAS; Dr. S. L. Chavan, Head of the Electrical Engineering Department; along with other distinguished faculty members, staff from Lighting Concepts Pvt. Ltd., and over 150 students.

B. Panel Discussion - Opportunities for girl students in era of Energy Transition

An interactive panel was organized at AISSMS' IOIT, EED , IEEE Student Branch, Pune along with industry experts from REGEN ESG, Datsons Pvt Ltd, Samychit, SAS Power Tech, Eaton Technology, mainly to educate girl students on the career opportunities in the field of Power and energy sector today with green energy, prosumer participation, EV penetration, regulatory incentivization to low carbon and energy efficiency.

The session was very well received by around 50 girl-students across Pune Section. Following pointers were discussed. The educatory kits and certificates were issued.

1. Skills required for the future of energy
2. Digital roadmap and Deep Tech Tools
3. Regulatory changing landscape
4. Opportunities for girl-students towards start-up etc

C. Ideathon Competition - Energy Efficient and Sustainable Campus

PES-IAS Chapter has announced the IDEATHON to motivate and encourage students to come up with ideas to develop projects in the space of Energy Efficiency and Environmental Engineering, sustainable campus. We received 110 ideas. The ideas submitted are grouped and

we have build a teams with local colleges, universities, industries to result into a sustainable outcome of continued engagement. This ideathon is the beginning of developing projects benefiting local community as well as contribute to solving the local level issues of energy at Pune region. The certificates were issued to the participating groups

2. Participants:

- Total Participants: 220
- IEEE Members: 50
- PES Members: 15
- Students / YP / Professionals: 175/ 15/ 40

3. Activities Conducted:

- Technical Industry Talks
- Panel Discussions
- Competition- Ideathon

4. Outcomes & Impact:

The outcome of these activities is clearly observable in terms of increased participation of students, increased volunteering from professionals and YPs, and increased involvement of industry experts. There is significant visibility of IEEE and PES to the industry participants, that has increased their interests towards becoming IEEE member and PES member. The opportunities of local partnership with industry , academia is increased.

5. Feedbacks & Testimonials

The overall feedback for the event was highly positive and encouraging. Participants appreciated the well-structured combination of a technical industry talk, a focused panel discussion, and a student-centric ideathon, which together provided technical knowledge, career guidance, and innovation opportunities. Students found the industry talk on lighting design insightful and inspiring, as it exposed them to emerging career paths beyond conventional power engineering. The panel discussion was especially impactful for girl students, who valued the guidance on future skills, energy transition opportunities, and entrepreneurship in the power and energy

sector. The ideathon received enthusiastic responses, with participants expressing motivation to convert ideas into real-world projects addressing energy efficiency and sustainability. Faculty members and industry professionals commended the chapter for its strong coordination, industry engagement, and meaningful contribution toward academia–industry collaboration and community-focused innovation.

Photo Section

MDI-25-003-R1-7

IEEE PES SF Chapter day celebrations

2025

Region	: 06
Section	: IEEE San Francisco Section, USA
Type of Chapter	: IEEE PES Professional Chapter
OU	: CH06071 - San Francisco Section Chapter, PE31,USA
MDI Leader	: Sneha Vasudevan

Event Summary *(Minimum 200 words)*

Event#1 : (Ride Zum Oakland Depot Tour : EV School bus fleet with V2G)

As part of IEEE PES Day 2025 celebrations, the IEEE PES San Francisco Bay Area Chapter organized an exclusive site visit to Ride Zum's Oakland Depot. This event provided a rare opportunity for IEEE members, power professionals, students, and stakeholders to witness the application of advanced Vehicle-to-Grid (V2G) technology within the nation's first fully electric school bus fleet. The visit aimed to illustrate how innovation in fleet electrification and smart grid integration can address real-world challenges in energy and transportation, resonating with the IEEE PES Day theme, "Powering a Climate Safer Future."

Attendees toured Zum's operational depot and explored how electric buses charge during off-peak hours and discharge electricity back to the grid during peak demand, without impacting student transport schedules. The tour highlighted key infrastructure, utility coordination, and practical deployment strategies.

The event advanced the PES mission by promoting professional development, enhancing student engagement—especially two PhD students working in this area, and exemplifying sustainability through equitable, zero-emission transit solutions. A major success was the direct exposure to pioneering clean energy systems, while the challenges included complex stakeholder coordination and logistical planning. The tour ultimately strengthened technical understanding, showcased real-world innovation, and elevated the value of IEEE PES membership.

Event#2 : (IEC 61850)

To advance technical knowledge in smart grid technologies and enhance professional development within the power and energy sector, IEEE PES organized a comprehensive technical session on "Introduction to IEC 61850" - a foundational standard that serves as the backbone of modern smart grid communications. This educational initiative targeted power system engineers, students, and professionals seeking to understand the critical role of standardized communication protocols in today's evolving energy infrastructure. The session addressed the growing industry need for interoperability between diverse power system devices and applications, particularly as utilities integrate renewable energy sources and implement advanced grid modernization strategies. The event aligned perfectly with IEEE PES's mission of

advancing the theory and practice of electrical and electronic engineering in the power and energy sector. By focusing on IEC 61850, participants gained essential knowledge about data modeling, communication methods, and configuration standards that enable smart grid functionality including dynamic equipment ratings, renewable energy integration, wildfire risk reduction through falling conductor detection, and environmental sustainability through reduced copper wiring requirements. This technical training session served as a crucial stepping stone for professionals looking to deepen their expertise in system architecture, testing methodologies, and implementation of advanced power system functionalities, ultimately contributing to the development of more resilient and efficient electrical infrastructure.

Detailed Event Report

1. Event Description:

The event was designed to give IEEE members and affiliates an immersive experience into the real-world deployment of V2G technology. Organized in alignment with IEEE PES Day 2025, 2 the visit to Ride Zum's Oakland Depot featured a detailed tour of the electric bus fleet and its integrated V2G infrastructure.

Objectives:

- Showcase innovation in electrified transportation and smart grid interoperability.
- Highlight cross-sector collaboration among utilities, tech providers, and school districts. Inspire students and professionals through hands-on exposure to cutting-edge systems.

The event was promoted through IEEE communication channels and targeted power engineers, sustainability advocates, and academia. It successfully illustrated how energy storage and electric mobility can converge to serve grid resilience. Event promotion through IEEE communications was done because this customer had strict social media policies that prohibited event marketing.

The "Introduction to IEC 61850" technical session was designed as a comprehensive educational program addressing the fundamental aspects of this critical smart grid standard. Planned as an interactive learning experience, the event provided participants with a thorough understanding of how IEC 61850 enables standardized communication and data modeling across power system applications. The session covered essential background information on why IEC 61850 has

become indispensable for modern power systems, detailing its role in facilitating interoperability between devices from different manufacturers. Key educational components included detailed explanations of data modeling structures, communication protocols, available services, and configuration procedures. The timeline was structured to build knowledge progressively, starting with fundamental concepts and advancing to practical applications. Promotion targeted power system professionals, utility engineers, students, and researchers interested in smart grid technologies. The curriculum specifically addressed three core questions: the importance of IEC 61850 in modern power systems, its functional capabilities, and its operational mechanisms, ensuring participants left with actionable knowledge for further professional development.

2. Participants:

- Total Participants: 33
- IEEE Members: 30
- PES Members: 30
- Students / YP / Professionals: 3

3. Activities Conducted:

- **Technical presentation + Tour** : Technical presentation providing an overview of the current V2G capabilities, and plans to convert this into a microgrid. Comprehensive presentation covering IEC 61850 fundamentals, data modeling concepts, and communication methodologiesFollowing the presentation, the guided walkthrough of the V2G-enabled depot and a ride in the EV school bus.
- Networking Session: Informal knowledge sharing among attendees.
- On-site Q&A: Live Q&A with Ride Zum staff and energy management partners and Q&A periods addressing specific industry applications and implementation challenges
- Case Study Discussions: Real-world examples of IEC 61850 implementation in smart grid projects

4. Outcomes & Impact:

➔ Direct exposure to operational V2G systems increased understanding of grid-interactive EV deployments.
➔ Strengthened professional and academic networks around sustainable energy.

- ➔ Enhanced visibility of IEEE PES in the clean tech and education sectors.
- ➔ Contributed to student research with practical insights for ongoing doctoral projects.
- ➔ Demonstrated potential of electric fleets in improving community air quality and supporting grid operations.
- ➔ Successfully established a foundation for participants to pursue advanced study in smart grid technologies and IEC 61850 implementation.
- ➔ Attendees gained comprehensive understanding of standardized communication protocols essential for modern power system operations, positioning them to contribute more effectively to smart grid initiatives within their organizations.

5. Feedbacks & Testimonials

- ➔ "Seeing V2G in action helped connect many of the theoretical concepts from my coursework with real-world implementation." – PhD student attendee
- ➔ An inspiring look at how electrification can truly transform both transport and energy sectors." – IEEE Member & Utility Engineer

Photo Section

MDI-25-013-R09

PES DAY 2025: Electromobility and Energy Industry Summit - Electromobility Project Showcasing

Region	: 09
Section	: IEEE SECTION Chile Sur
Type of Chapter	: IEEE PES SBC
OU	: University of Concepcion, PE31, SBC04831C / R90904, Chile
MDI Leader	: Alonso Maricahuin Monsalves

Event Summary *(Minimum 200 words)*

This IEEE PES-hosted event brought together three distinguished academics with extensive experience in the energy sector to share their latest research and insights on today's most pressing energy challenges. Topics included electromobility, sustainable energy sources, BESS (Battery Energy Storage Systems) implementation, energy efficiency, and the integration of renewable technologies—all directly supporting the PES mission to be the leading provider of scientific and engineering information on electric power and energy for the betterment of society.

Complementing the panel, the university's electromobility team showcased their electric go-kart project, demonstrating how student-led innovation can translate academic knowledge into real-world, sustainable solutions.

Targeting students, young professionals, and the broader community, the event fostered meaningful dialogue between academia and industry. By encouraging student engagement, technical exploration, and inclusive participation, the event served as a powerful platform for professional development—reinforcing PES's role as the preferred source of learning and growth for its members.

Detailed Event Report

1. Event Description:

Background:

As part of IEEE PES Day 2025, the IEEE PES Student Chapter at the University of Concepción organized a high-impact panel discussion focused on current trends and challenges in the energy sector. The initiative emerged from the Chapter's commitment to fostering professional development, technical knowledge exchange, and student engagement aligned with PES's global mission.

Goals:

- Promote awareness of sustainable energy practices and emerging technologies.
- Connect students with leading experts in the energy sector.

- Inspire the next generation of engineers to address global energy challenges through innovation.
- Strengthen collaboration between academia, industry, and the public sector.

Timeline & Planning:

Planning began in early March 2025 with weekly coordination meetings among Chapter officers. Speaker invitations, logistics, and a hybrid setup were confirmed by late March. The event was scheduled for April 23, with a 4-hour agenda including talks, demos, and Q&A sessions.

Promotion:

The event was promoted via Instagram (@pes.udec), university bulletin boards, faculty mailing lists, and through collaboration with other student groups. A Google Forms link was used for registration, and early outreach ensured broad participation.

Key Sessions:

- Expert Panel: Three academics presented on electromobility, BESS implementation, and energy transition challenges.
- Student Innovation Showcase: The university's electromobility team unveiled their electric go-kart, illustrating real-world applications of engineering design.
- Interactive Q&A: Participants engaged directly with panelists, fostering a dynamic knowledge exchange.

The combination of expert insight, student participation, and technical demonstration made the event both educational and inspiring, firmly aligning with IEEE PES's mission.

2. Participants:

- Total Participants: 30
- IEEE Members: 10
- PES Members: 08
- Students / YP / Professionals: 28/ 0 / 02

3. Activities Conducted:

- Technical Talks
- Project Showcasing
- Panel Discussions
- Networking Sessions
- Outreach Activities

4. Outcomes & Impact:

The event produced meaningful outcomes for the IEEE PES Student Chapter, including the initiation of a student-led energy efficiency research group focused on analyzing household electricity consumption for societal impact. This effort increased student engagement in technical, community-oriented projects. Additionally, a professor from the Universidad Católica de la Santísima Concepción (UCSC) expressed interest in strengthening IEEE presence at his institution and exploring future collaboration, including the potential formation of a PES Student Chapter. Overall, the event fostered new collaborations, enhanced student participation, and supported the regional growth of the IEEE PES network in southern Chile.

5. Feedbacks & Testimonials

“Celebrating the IEEE PES Day during May 23th of this year was such an enriching experience; listening to fully capable presenters sharing actuality of challenges in energy and throughout different engineering disciplines turned out to be quite motivating. I'm deeply thankful to the IEEE PES UdeC SBC Officers, who organized the event flawlessly, worried about every single detail, and reaching many students who weren't part of the student chapter.” [Gustavo Vega, Attendee & PES UdeC Past Chair]

Photo Section

MDI-25-014-R09

Workshop on substation design in the context of clean energy (PV Systems)

Region	: 09
Section	: IEEE Section, Veracruz
Type of Chapter	: IEEE PES SBC
OU	: SBC01022- Universidad Veracruzana- FIME, PE31
MDI Leader	: Eduardo Vázquez Alcubilla

Event Summary ***(Minimum 200 words)***

This technical workshop offers a foundational overview of substation design within the context of modern electrical grids. It introduces the structural and functional elements of a typical medium-to-high voltage substation, focusing on layout planning, equipment selection, and system integration.

The session examines the standard single-line diagram of a substation, breaking down the roles of key components such as power transformers, circuit breakers, disconnect switches, current and voltage transformers, surge arresters, busbars, and grounding systems. Attention is given to the spatial arrangement and operational logic behind equipment placement, as well as the importance of safety clearances.

Participants explore:

- The step-by-step design process from electrical specification to civil layout
- Typical substation configurations (e.g., single bus, double bus, ring bus)
- Protection and control schemes based on relay logic and SCADA integration
- Design considerations for integrating renewable energy and future grid expansion
- Technical standards that guide substation design (IEC/IEEE)

The workshop also addresses the environmental and efficiency implications of substation design in the context of clean energy and grid modernization. Emphasis is placed on how optimized design supports system reliability, reduces energy losses, and enables smarter grid operation.

While the content is structured to be technically clear and accessible, it maintains a focus on real-world engineering practice, providing insights into how substations serve as critical nodes in electrical transmission and distribution networks.

This session is ideal for those who seek a structured introduction to substation systems as they relate to energy transition goals and intelligent grid infrastructure.

Around 40 students, both IEEE members and non-members, were able to attend this workshop delivered by Engineer Maria Alejandra Aguilar Morales, who came from Costa Rica to lead it. They gained a broader understanding of substation design, the components involved, and how it

can be adapted to a clean energy generation environment, supported by examples from completed projects.

Detailed Event Report

1. Event Description:

During the first hour and a half of the workshop, Engineer María Alejandra gave us a broad overview of substations—how they are structured in terms of design, the main elements and equipment involved, the characteristics a site must meet to be considered suitable for substation construction, as well as the regulations and key aspects that must be strictly followed to successfully carry out this type of project.

Afterward, we were given approximately 15 minutes to enjoy a light snack consisting of coffee and cookies. The session then continued with the presentation of real-world examples of substation design applications.

Once the talk concluded, participants were provided with materials such as printed diagrams of substation elements, sheets of paper, scissors, glue, and markers. These resources allowed attendees to unleash their creativity and design their own substation based on specific criteria that had been explained before the activity began.

Before concluding this activity, participants were invited to enjoy a meal, which was sourced from a small Italian restaurant in the city to support local businesses.

While eating, the participants continued discussing how they could develop their substation designs based on the elements provided. Once the meal was over, they resumed the activity and, upon completion, presented their designs in front of the group, explaining in detail how they created their substation.

At the end of the presentations, the speaker congratulated everyone for their excellent work and dedication throughout the workshop. The session concluded with a more informal and personal conversation, during which she answered participants' questions and shared insights about the projects she has worked on and continues to work on, bringing the workshop to a close.

2. Participants:

- Total Participants: 32
- IEEE Members: 15
- PES Members: 15
- Students / YP / Professionals: 17

3. Activities Conducted:

- Workshops
- Technical Talks
- Competitions
- Panel Discussions
- Networking Sessions
- Outreach Activities

4. Outcomes & Impact:

The organization of this workshop allowed participants to develop their teamwork skills. It also gave the organizers a better understanding of how an event of this kind is carried out and how the collaboration between members of the student branch and the PES chapter is essential to successfully bring it all together.

It has also been observed that several people who attended this event, as well as others organized by the same student branch, have since joined IEEE. As a result, the number of members in this branch continues to grow, and it is hoped that the PES chapter will also see an increase in membership.

5. Feedbacks & Testimonials

According to feedback from the attendees, they found the workshop to be highly enriching and eye opening in terms of substation design. They also mentioned that, despite the workshop lasting several hours, it did not feel overwhelming thanks to the engaging activities and interactive dynamics that were incorporated throughout the session.

Photo Section

MDI-25-097-R10

National level Technical Symposium & Idea Pitching Competition on Power utilization and Energy Sector: PES Bright Ideas 2025

Region	: 10
Section	: IEEE Hyderabad Section, India
Type of Chapter	: IEEE PES SBC
OU	: SBC63341A - Padmasri Dr B V Raju Inst of Tech, PE31
MDI Leader	: Dr.P.Chandra Babu

Event Summary *(Minimum 200 words)*

To enhance PES visibility and promote national-level collaboration in the energy domain, IEEE PES Student Branch Chapter (SBC63341A), BVRIT Narsapur, in collaboration with IEEE PES Hyderabad Section, organized a two-day National Level Technical Symposium and Idea Pitching Competition on "Power Utilization and the Energy Sector – PES Bright Ideas 2025" on 22nd–23rd August 2025. The event was conducted in a hybrid format at BVRIT Narsapur and online via Microsoft Teams and Zoom Meetings, enabling wider participation across regions.

The symposium served as a knowledge-sharing and innovation platform, focusing on emerging themes such as AI and blockchain for EVs and smart grids, IoT-enabled energy monitoring and automation, green technologies for agriculture and rural electrification, and sustainable energy solutions to power the grid of tomorrow. Distinguished speakers enriched the event with their expertise: Dr. VSK Murthy Balijepalli (CEO, Luces Innovation & IEEE R10 PES Secretary) delivered a keynote on "Powering Tomorrow: Innovation, Intelligence & Impact in the Future Energy Landscape," while Sri R. Kannan (Retd. GM, BHEL) presented insights on "Renewable Energy Systems: Scenario, Challenges, and Opportunities for Engineers."

A major highlight was the Idea Pitching Competition, which saw participation from 56 student teams comprising 168 students and 25 faculty members, representing reputed engineering colleges, universities, and autonomous institutions from Telangana, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Maharashtra. Winners were recognized with prizes and offered opportunities for incubation through the AICTE IDEA Lab and VVL Foundation.

The symposium fostered interdisciplinary collaboration, mentorship, and entrepreneurship, providing students with exposure to real-world challenges and innovative solutions in the power and energy sector. By combining offline and online participation, it successfully expanded PES outreach and created a vibrant platform for future collaborations in sustainable technologies.

Detailed Event Report

1. Event Description

The National Level Technical Symposium and Idea Pitching Competition PES Bright Ideas 2025 was organized by the IEEE Power & Energy Society Student Branch Chapter (SBC63341A),

BVRIT Narsapur, in collaboration with the IEEE PES Hyderabad Section, on 22nd and 23rd August 2025. The event was conducted in hybrid mode, with in-person sessions held at the BVRIT Narsapur campus, Hyderabad, and virtual participation facilitated through Microsoft Teams and Zoom, enabling nationwide participation.

Designed as a platform for knowledge exchange and innovation, the symposium focused on emerging technologies and challenges in the power and energy sector, including artificial intelligence, blockchain, IoT, renewable energy systems, green technologies, and sustainable solutions. The two-day program featured keynote and technical sessions by eminent industry experts, including Dr. VSK Murthy Balijepalli, who spoke on future energy innovation and intelligent systems, and Sri R. Kannan, who addressed the current scenario, challenges, and opportunities in renewable energy engineering.

A key highlight of the event was the Idea Pitching Competition, which saw enthusiastic participation from 56 student teams comprising 168 students and 25 faculty mentors representing institutions across six states. Participants presented innovative, practical, and future-ready ideas aligned with the symposium themes. The event concluded with a valedictory and prize distribution ceremony, where outstanding teams were recognized and offered incubation and mentorship opportunities through the AICTE IDEA Lab and Vishnu Venture Labs Foundation. Overall, PES Bright Ideas 2025 successfully promoted innovation, collaboration, and entrepreneurial thinking while significantly enhancing the national visibility of IEEE PES.

2. Participants:

- Total Participants: 240
- IEEE Members: 81
- PES Members: 25
- Students / YP / Professionals: 10

3. Activities Conducted:

- **Technical Talks:** The symposium featured an inspiring industry keynote by Dr. VSK Murthy Balijepalli, CEO of Luces Innovation and IEEE R10 PES Secretary, on “Powering Tomorrow: Innovation, Intelligence & Impact in the Future Energy Landscape.” He emphasized the role of emerging technologies such as AI, blockchain,

and IoT in shaping future energy systems, highlighting the need for interdisciplinary research and global collaboration in areas like smart grids, EVs, and renewable integration. This was followed by a technical expert talk by Sri R. Kannan, Retired General Manager (BHEL), on "Renewable Energy Systems: Challenges and Opportunities for Engineers," where he discussed the current renewable energy landscape, key challenges, and career and research opportunities for young engineers. Both sessions were highly engaging and interactive.

- **Competitions**: A major highlight was the National Level Idea Pitching Competition, which attracted 56 teams (approximately 155 students) from six states, conducted in a hybrid format with 30 offline and 26 online teams. Each team presented innovative and feasible solutions related to sustainable energy, smart grids, IoT, AI, blockchain, and green technologies, followed by expert evaluation and feedback. Around 50 student volunteers supported the technical sessions and competition, ensuring smooth coordination.
- **Networking Sessions**: Dedicated networking sessions enabled participants to interact with peers, faculty, and industry experts. Offline attendees also visited the AICTE IDEA Lab and Centers of Excellence, fostering academic interaction, career discussions, and potential future collaborations.

4. Outcomes & Impact:

The event had a strong impact on both participants and the chapter, significantly increasing awareness of IEEE PES and its benefits, which led to greater interest in membership and volunteering. It strengthened engagement among students and fostered meaningful connections with professionals and experts, opening avenues for future collaboration and mentorship. Overall, the event enhanced chapter visibility, promoted technical excellence, and inspired students to actively contribute to IEEE PES initiatives.

5. Feedbacks & Testimonials

According to feedback from the attendees, they found the workshop to be highly enriching and eye opening in terms of substation design. They also mentioned that, despite the workshop lasting several hours, it did not feel overwhelming thanks to the engaging activities and interactive dynamics that were incorporated throughout the session.

Photo Section

MDI-25-009-R1-7

STEM Equipment Outreach

Region	: 02
Section	: IEEE Cleveland Section, USA
Type of Chapter	: PES Professional Chapter
OU	: CH02024 - Cleveland Section Jt Chapter, RL07/IE13/PE31/IA34
MDI Leader	: Gavin F. White

Event Summary *(Minimum 200 words)*

The IEEE PES STEM Equipment Program was designed to inspire the next generation of engineers and innovators by providing hands-on access to high-quality STEM educational equipment for K–12 schools and community organizations. Focused on underserved and under-resourced schools across Northeast Ohio, the initiative aimed to bridge the gap between classroom theory and real-world engineering applications while promoting equitable access to STEM learning. IEEE members were also able to utilize the equipment for outreach and STEM engagement events.

The program partnered with ScienceFirst, an educational equipment vendor, to procure laboratory tools and demonstration kits at discounted nonprofit rates. IEEE volunteers and industry professionals actively supported classroom demonstrations, mentoring, and student engagement, while educators received follow-up resources to effectively integrate the equipment into their curricula.

As a result, hundreds of students gained expanded hands-on STEM learning opportunities, leading to increased curiosity and interest in science and engineering fields. The initiative strengthened IEEE PES visibility within the local education and professional community and enhanced collaboration among IEEE members, educators, and industry partners. Schools provided positive feedback, highlighting improved student participation and enthusiasm.

Despite challenges related to vendor coordination and procurement timelines, the program succeeded in establishing sustainable partnerships and sourcing models. Overall, the initiative strongly aligned with the PES mission by promoting early engineering exposure, volunteer-driven professional development, and diversity, equity, and inclusion in STEM education.

Detailed Event Report

1. Event Description

The STEM Equipment is available for any STEM event in the Cleveland area where a trained Cleveland area educator or IEEE member checks the equipment out.

2. Participants:

- Total Participants: 10+
- IEEE Members: 10+
- PES Members: 05+
- Students / YP / Professionals: Unknown

3. Activities Conducted:

- Outreach Activities - STEM Equipment training. The equipment has been used / checked out for STEM fairs, Scouts events, and STEM days at local schools

4. Outcomes & Impact:

This program represents a unique and first-of-its-kind initiative within our IEEE Section, designed to reach and positively impact an entirely underserved and previously untouched segment of the community. By directly providing STEM equipment and hands-on learning opportunities to under-resourced schools and community organizations, the program expanded IEEE PES outreach beyond traditional academic and professional audiences. Its impact is evident in the increased exposure of K–12 students to engineering concepts, many of whom had limited prior access to such resources. The initiative not only strengthened awareness of IEEE PES at the grassroots level but also laid the foundation for long-term interest in STEM education and future engineering careers. Additionally, the program created a sustainable model for recurring engagement through equipment sharing, volunteer involvement, and educator partnerships, positioning the IEEE Section as a key contributor to community development and workforce pipeline growth.

5. Feedbacks & Testimonials

Feedback from participating schools, educators, and IEEE volunteers was overwhelmingly positive. Teachers appreciated the availability of high-quality, hands-on equipment and noted a visible increase in student engagement, curiosity, and participation during STEM activities. Many educators highlighted that the demonstration kits helped simplify complex engineering concepts and made lessons more interactive and relatable. Students responded enthusiastically to the practical learning experiences, expressing greater interest in science and engineering careers.

IEEE volunteers valued the opportunity to contribute their expertise through mentorship and classroom support, while schools commended the program for addressing resource gaps and promoting equitable STEM education. Overall, the feedback affirmed the program's effectiveness in enhancing STEM learning and strengthening community connections.

Photo Section

MDI-25-100-R10

IEEE PES China Chapters Council
Student Research Showcase

Region	: 10
Section	: IEEE Xian Section, China
Type of Chapter	: IEEE PES SBC
OU	: SBC29831E - Xian Jiaotong Univ,PE31, China
MDI Leader	: Siyuan Sun

Event Summary *(Minimum 200 words)*

To promote communication and collaboration among IEEE PES student members, IEEE PES China Chapters Council (PCCC), in conjunction with the 2025 IEEE Power & Energy Society General Meeting, successfully hosted the 2nd IEEE PCCC Student Session on July 30, 2025, at JW Marriott Austin, Texas, USA. The event featured 6 IEEE and PES leaders delivering opening remarks, as well as 9 students from 7 universities showcasing their research in a clear, engaging, and concise presentation using just one slide in 3 minutes, while attendees were invited to vote for their favorite presentations. This setup allowed students to showcase their academic work, engage with peers, and expand their professional network.

Detailed Event Report

1. Event Description

This event is designed to foster meaningful connections among students. In addition to peer interaction, senior experts and young scholars in the power and energy field are invited to engage with students, promoting collaboration and mentorship. The session aims to serve as a platform for knowledge exchange, professional networking, and community-building among students and professionals in the power and energy sector.

This event features 9 students from 7 universities presenting their research in a concise 3-minute format using a single slide. This format challenges students to communicate their research effectively and clearly while capturing the audience's interest. Attendees have the opportunity to vote for their favorite presentations, fostering an interactive and engaging experience. Senior experts and young scholars in the power and energy field are invited to discuss with students, encouraging collaboration and mentorship. This session provides a public stage for students to present, assess, and discuss their scientific investigations with peers, as well as an opportunity to recognize and award outstanding research efforts.

2. Participants:

- Total Participants: 65
- IEEE Members: 65
- PES Members: 65

- Students / YP / Professionals: -

3. Activities Conducted:

- **Opening Speeches:** Prof. Saifur Rahman (2023 IEEE President, 2018-2019 IEEE PES President), Dr. Jessica Bian (2022-2023 IEEE PES President), Prof. Chongqing Kang (Chair of IEEE PES China Chapters Council), Dr. Ramakrishna Kappagantu (2023-2024 IEEE PES Region 10 Representative), Ms. Akanksha Wankhade (Vice Chair of IEEE PES Students & Young Professionals), and Ms. Amanda Fernandes (Vice Chair of IEEE PES Students & Young Professionals) were invited to deliver opening remarks.
- **Technical Talks:** Nine students from seven universities showcased their research in a clear, engaging, and concise presentation using just one slide in 3 minutes. The presenters are Mr. Minzhen Li (University of Birmingham), Ms. Yue Qu (The University of Queensland), Mr. Jiawei Qu (Tianjin University), Mr. Naiyuan Liu (Northeast Electric Power University), Mr. Mingyang Mei (Xi'an Jiaotong University), Mr. Xunhang Sun (Xi'an Jiaotong University), Mr. Shutong Pu (Tsinghua University), Mr. Junjie Yin (University of Tennessee), and Mr. Ruike Lyu (Tsinghua University).
- **Panel Discussions:** Prof. Gengfeng Li (Xi'an Jiaotong University), Prof. Yan Xu (Nanyang Technological University, Singapore), and Prof. Xinwei Shen (Tsinghua Shenzhen International Graduate School) were invited to comment on the lightning talks.
- **Networking Sessions:** Audiences were invited to vote for their top three favorite presentations. Informal discussions with presenters were encouraged during the networking & voting session. Following the event, students engaged in meaningful dialogue with senior experts and peers.
- **Competitions:** Based on attendee voting, Ms. Yue Qu (The University of Queensland), Mr. Ruike Lyu (Tsinghua University), and Mr. Junjie Yin (University of Tennessee) were awarded the Best Oral Presentation Award.

4. Outcomes & Impact:

The event supports the IEEE PES mission by empowering the next generation of researchers and engineers in the power and energy field. The three-minute thesis (3MT) format aims to cultivate students' public speaking and science communication skills by encouraging them to present their

in-depth and technical research in a clear and engaging way that is understandable to all. Each student is challenged to summarize their work into a concise 3-minute talk using only one slide, promoting clarity, confidence, and audience connection. Beyond presentation skills, the event fosters mentorship by connecting student presenters with senior scholars and professionals in the power and energy field. These interactions provide valuable feedback and guidance, nurturing the next generation of power and energy leaders. Through peer learning, professional dialogue, and friendly competition, the initiative empowers students to grow as researchers, communicators, and future mentors in the global power and energy community.

5. Feedbacks & Testimonials

The feedback received from participants and attendees was overwhelmingly positive, reflecting the success and impact of the 2nd IEEE PCCC Student Session. Student presenters appreciated the innovative three-minute, one-slide presentation format, noting that it significantly enhanced their ability to communicate complex research ideas in a clear, concise, and engaging manner. Many participants highlighted that the interactive voting mechanism increased audience involvement and created a supportive yet competitive atmosphere. Attendees valued the opportunity to engage directly with senior IEEE and PES leaders, panel experts, and peers, describing the mentorship discussions and feedback as highly insightful and motivating. The presence of distinguished speakers during the opening remarks was widely praised for inspiring students and reinforcing the importance of active participation in the global IEEE PES community. Overall, the session was regarded as a highly effective platform for knowledge sharing, networking, and professional growth, and participants expressed strong interest in continuing and expanding this initiative in future IEEE PES General Meetings.

Photo Section

MDI-25-101-R10

Development of an Outreach Program to Spark Interest in Electric Power and Energy (SIEPE 2025) among School Students

Region	: 10
Section	: IEEE Kolkata Section, India
Type of Chapter	: PES Professional Chapter
OU	: CH10119 - IEEE PES Chapter Kolkata Section, PE31, India
MDI Leader	: Dr. Subrata Biswas

Event Summary *(Minimum 200 words)*

To enhance IEEE Power and Energy Society (PES) visibility and foster global collaboration, IEEE IEEE PES Chapter Kolkata Section, PE31- CH10119 at “The Stadel” JB Block, Sector 3, Bidhannagar, Kolkata, West Bengal 700106 organized a two-days Outreach Program on “Spark Interest in Electric Power and Energy (SIEPE 2025) among School Students” featuring panel sessions, technical quiz competitions, laboratory Visit and expert talks during 10-11, October, 2025. Over 51 students and young professionals participated from across Kolkata region, engaging in discussions on the necessity of Electric Power and Energy and its challenges.

This initiative aimed to introduce school students to IEEE PES, increase local chapter activity, and provide hands-on exposure to emerging trends in power and energy systems. Students from 6 different schools and 4 different technical colleges from Kolkata participated in SIEPE 2025. The initiative aims to address the necessity for early education and engagement in the field of electric power and energy among school/college/university students within the local or regional community. Recognizing the critical role of energy in modern society and the increasing demand for sustainable solutions, the program seeks to foster interest and awareness at an young age. By introducing concepts related to electric power in an accessible and engaging manner, it aims to inspire curiosity, creativity, and future participation in STEM fields. Furthermore, the initiative addresses the gap in educational resources tailored to school levels, aiming to provide foundational knowledge and skills that can empower students to become informed citizens and potential future innovators in the energy sector. Interactive workshops provide tangible benefits to industry professionals and large number of PES members.

Total 51 Students from 6 different schools and 4 different technical colleges from Kolkata participated in SIEPE 2025 on 10th and 11th October 2025 at The Stadel, Kolkata.

Detailed Event Report

1. Event Description

The Development of an Outreach Program to Spark Interest in Electric Power and Energy (SIEPE 2025) was organized as an IEEE PES Member-Driven Initiative by the IEEE PES Kolkata Section on 10–11 October 2025 at The Stadel, Kolkata. The two-day program aimed to inspire school and college students toward electric power and energy studies while strengthening

IEEE PES membership and outreach in the Kolkata region. The event successfully engaged students from six schools and four colleges through a series of expert lectures, industry sessions, interactive activities, and laboratory exposure.

SIEPE 2025 featured nine technical and awareness sessions delivered by eminent academicians and industry experts from Jadavpur University, IEEE India Council, and industry. Key topics included inventions that shaped human life, STEM awareness, theory-to-practice in engineering, renewable energy necessity, energy conservation practices, and strategies for IEEE PES member engagement and chapter growth. An industry session focused on practical energy-saving methods at home and educational institutions. The program also included an IEEE PES Tech Quiz, award distribution, and networking sessions.

A highlight of the event was the laboratory visit to the Electrical Machines and Power Systems Labs at Jadavpur University, where 51 students gained hands-on exposure to real-world power engineering facilities. Extensive promotion through digital flyers, school outreach, and student volunteers ensured strong participation. Overall, SIEPE 2025 effectively promoted STEM education, sustainable energy awareness, community engagement, and the IEEE PES mission of advancing power and energy knowledge for societal development.

2. Participants:

- Total Participants: 51
- IEEE Members: 12
- PES Members: 8
- Students / YP / Professionals: 10

3. Activities Conducted:

- Workshops- 1. PES Tech Quiz
- Technical Talks- 6
- Competitions-1 (IEEE PES Tech Quiz)
- Panel Discussions- 1
- Networking Sessions- 1 (During Lunch hour for Two Days)
- Outreach Activities- Laboratory visit

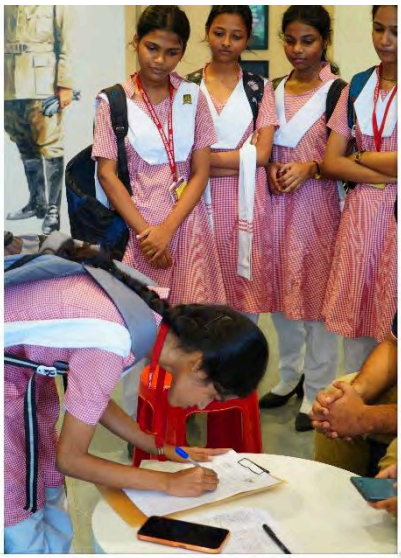
4. Outcomes & Impact:

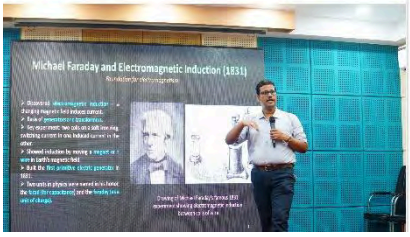
- ➔ Increase IEEE PES member engagement
- ➔ Improve Member Retention: Ensure existing PES members find value in their membership and renew their subscriptions.
- ➔ Strengthened IEEE visibility in the student community.
- ➔ Final report with insights and data.

5. Feedbacks & Testimonials

The feedback received from students, educators, and organizers was highly positive, highlighting the strong impact of SIEPE 2025. Participants appreciated the wide range of expert-led sessions, which effectively combined foundational concepts, real-world engineering practices, and future-focused topics such as renewable energy, STEM education, and energy conservation. Students found the lectures engaging and easy to understand, particularly valuing the historical perspectives on electrical inventions, practical energy-saving guidance, and the exposure to laboratory facilities at Jadavpur University. The IEEE PES Tech Quiz and interactive discussions further enhanced engagement and enthusiasm. Teachers and volunteers commended the program for motivating students toward engineering and power and energy studies, while also increasing awareness of IEEE and PES activities. Overall, the event was regarded as informative, inspiring, and well-organized, successfully sparking interest in electric power and energy among young learners and strengthening the outreach and visibility of IEEE PES in the region.

Photo Section



MDI-25-010-R1-7

Student Branch Chapter Creation Initiative at the University of Alberta

Region	: 10
Section	: IEEE Kolkata Section, India
Type of Chapter	: PES Professional Chapter
OU	: CH10119 - IEEE PES Chapter Kolkata Section, PE31, India
MDI Leader	: Dr. Subrata Biswas

Event Summary ***(Minimum 200 words)***

During Fall 2025, the IEEE University of Alberta Student Branch (SB) and the PES/IAS/PELS Student Branch Chapter (SBC) delivered a coordinated series of three engagement activities designed to strengthen student leadership, broaden awareness of IEEE PES, and provide hands-on exposure to modern power and energy technologies. Together, these events aligned student initiatives with the IEEE PES mission of advancing professional development, technical excellence, and inclusive participation.

The semester began with a Fall Orientation focused on aligning student leaders, onboarding new volunteers, and establishing a unified operating framework between the SB and SBC. Participants received a clear overview of governance structures, leadership roles, financial and PES MDI reporting expectations, risk and safety practices, and the shared event calendar. Interactive breakout sessions translated goals into actionable plans with defined owners, timelines, and success metrics. The orientation emphasized accessibility and inclusion by offering multiple pathways for involvement and introduced collaboration tools and asynchronous onboarding resources to accommodate varied student schedules.

To expand outreach, the SB and SBC participated in the University of Alberta Engineering Carnival, hosting a high-visibility booth that introduced IEEE and PES to a diverse student audience. Through short, engaging micro-presentations, QR-based sign-ups, and informal discussions, attendees learned about upcoming technical programs, scholarships, and career resources, resulting in strong lead capture and early-term engagement.

The series culminated with the Schneider Electric EcoStruxure Trailer visit, which provided hands-on demonstrations of digital power systems, IoT-enabled devices, and analytics platforms applied to buildings, data centers, and industrial infrastructure. Guided tours showcased real-world applications in reliability, efficiency, sustainability, and predictive maintenance, reinforcing industry–academia collaboration and digitalization pathways. Collectively, these events built leadership capacity, expanded the PES talent pipeline, and positioned the chapter for sustained, mission-driven impact throughout the term.

Detailed Event Report

1. Event Description

At the start of the academic term, the IEEE University of Alberta Student Branch (SB) and the PES/IAS/PELS Student Branch Chapter (SBC) conducted three coordinated engagement activities to align leadership, expand outreach, and provide hands-on exposure to modern power and energy systems. The annual Orientation onboarded volunteers and aligned SB/SBC governance, roles, budgets, MDI reporting, communication tools, and the semester event calendar through focused briefings and breakout planning sessions.

Outreach efforts continued at the University of Alberta Engineering Carnival, where a high-visibility booth delivered concise introductions to IEEE and PES, highlighted scholarships and member benefits, captured student interest via QR-based sign-ups, and directed prospects to upcoming orientation and technical events.

The engagement series concluded with a campus showcase in collaboration with Schneider Electric, featuring guided tours of the EcoStruxure trailer. Participants explored IoT-connected devices, edge control, and analytics platforms through live demonstrations focused on reliability, efficiency, sustainability, and predictive maintenance.

Together, these activities strengthened chapter operations, increased IEEE PES visibility, broadened inclusive student participation, and reinforced industry–academia collaboration in alignment with the IEEE PES mission.

2. Participants:

- Total Participants: 100
- IEEE Members: 30
- PES Members: 12
- Students / YP / Professionals: -

3. Activities Conducted:

- Workshops
- Technical Talks

- Networking Sessions
- Outreach Activities

4. Outcomes & Impact:

➔ Leadership roles and committees established with a clear semester plan and standardized workflows.
➔ Effective volunteer onboarding through shared tools, mentoring, and asynchronous resources.
➔ Increased student exposure and interest in modern power and energy technologies.
➔ Faster and more reliable chapter execution with improved MDI reporting and accountability.
➔ Stronger student-to-YP pipeline and more inclusive participation.
➔ Enhanced industry–academia collaboration and visibility of IEEE PES on campus.

5. Feedbacks & Testimonials

Participant feedback was very positive, with students appreciating the clear structure, hands-on exposure, and inclusive approach to involvement. Volunteers valued the clarity in roles, workflows, and expectations, which made participation easier and more rewarding. Attendees also highlighted the industry showcase and networking opportunities as highly engaging and motivating, reinforcing interest in IEEE PES activities and future participation.

Photo Section

MDI-25-046-R08

AMP IT UP! – The Quiz Night for Energy Enthusiasts

Region	: 08
Section	: IEEE Benelux Section
Type of Chapter	: PES SBC
OU	: Delft University of Technology, PE31 (SBC00511A)
MDI Leader	: Hongjin Du

Event Summary *(Minimum 200 words)*

The IEEE Student Branch Delft - PES Chapter organized the “AMP IT UP! – The Quiz Night for Energy Enthusiasts”, a social and networking event designed to combine learning with entertainment through an energy-themed pub quiz. The main objective was to promote engagement within the power and energy community by creating a relaxed environment where participants could test and expand their technical knowledge while connecting with peers.

The event targeted MSc students, PhD researchers, and young professionals interested in topics related to renewable energy, smart grids, and electric mobility. Around 35 participants attended, including both IEEE members and newcomers to the society. The interactive quiz encouraged teamwork, friendly competition, and knowledge exchange. Participants enjoyed complimentary drinks and prizes, which added a lively and inclusive atmosphere to the evening.

This initiative directly supported the IEEE PES mission by fostering student engagement, professional networking, and informal technical learning. It also enhanced the visibility of IEEE PES at TU Delft, motivating new attendees to consider membership and future volunteer opportunities. A key success was the strong interaction between existing PES members and new participants, which strengthened the sense of community within the local energy network.

Despite being a small-scale event, this activity proved to be an effective and innovative way to promote professional development and social connection, setting a strong foundation for future IEEE PES activities at TU Delft.

Detailed Event Report

1. Event Description

The “AMP IT UP! – The Quiz Night for Energy Enthusiasts” was organized by the IEEE PES Student Branch Chapter at TU Delft as part of its ongoing effort to create engaging and educational networking opportunities for students and young professionals in the field of power and energy. The event was held on 13 October 2025, from 5:30 PM to 7:30 PM CEST, at the TU Delft campus.

The goal of the event was to combine technical learning with social interaction by hosting an energy-themed pub quiz. It aimed to increase awareness of IEEE PES activities, encourage new memberships, and build a sense of community among MSc students, PhD researchers, and early-career professionals interested in power system technology.

Planning for the event began two months in advance, covering key aspects such as venue reservation, quiz question collection and preparation, materials, prizes, and role assignments for officers and volunteers. Promotion was carried out through LinkedIn posts, flyers, group chats, and departmental email announcements, effectively reaching a diverse audience within the university.

The event followed a clear structure with three main sessions: an ice-breaker activity to help participants get to know each other, a brief introduction to the IEEE Student Branch and PES Student Branch Chapter at TU Delft, and the main quiz session, where teams competed in energy-related trivia while enjoying free drinks and snacks.

The combination of technical engagement and social enjoyment made the activity both informative and entertaining, successfully achieving its objective of promoting IEEE PES and fostering community participation at TU Delft.

2. Participants:

- Total Participants: 35
- IEEE Members: 10
- PES Members: 10
- Students / YP / Professionals: -

3. Activities Conducted:

- Competitions
- Networking Sessions
- Outreach Activities

4. Outcomes & Impact:

The “AMP IT UP! – The Quiz Night for Energy Enthusiasts” successfully achieved its goals of community building and membership promotion for the IEEE PES Student Branch Chapter at TU Delft. The event attracted around 35 participants, including students and young professionals, with over 40% attending an IEEE event for the first time. As a result, five participants showed interest in joining IEEE PES and three volunteered to support future activities. The informal quiz format encouraged cross-disciplinary interaction and knowledge exchange, while increased LinkedIn engagement (over 1,500 views) boosted chapter visibility. Overall, the event proved effective in strengthening student engagement, volunteer development, and PES membership growth.

5. Feedbacks & Testimonials

Participants praised the event for its effective mix of technical learning and social interaction, describing it as a fun and engaging way to explore energy topics. The quiz format helped attendees connect easily, encouraged teamwork, and created friendly competition. Newcomers noted that the event improved their understanding of IEEE and PES and motivated them to join future activities. Overall feedback highlighted the welcoming atmosphere, smooth organization, and creative format, confirming the event’s success in combining learning, networking, and enjoyment.

Photo Section

MDI-25-011-R1-7

PES Membership Drive and Energy Seminar

Region	: 06
Section	: IEEE Seattle Section, USA
Type of Chapter	: PES SBC
OU	: SBC98091 - Western Washington Univ,PE31
MDI Leader	: Xichen Jiang

Event Summary *(Minimum 200 words)*

The IEEE Student Chapter of Western Washington University (WWU) hosted a speaker event on October 7, 2025. Eina Ooka, a principal data scientist from the Energy Authority gave a one-hour presentation on the use of data analytics in the wholesale energy market, highlighting the latest data-driven approaches in market analysis, load forecasting, and long-term resource planning. Over 40 students from both the electrical and computer engineering department and the Institute for Energy Studies (IES) attended the event. Of those students who attended the event, the vast majority were upperclassmen.

Following the seminar, a reception was held in the lobby of the SMATE conference center. MDI funding was used for the purchase of light refreshments and food. Students appreciated the continued opportunity to further engage with Eina Ooka on machine learning innovations and challenges within the power and energy sector in a relaxed, casual atmosphere. Western Washington University faculties Dr. Jiang, Dr. Goel, and IES director Dr. Magee also attended the reception to share about emerging technologies and careers in the power and energy area. Since this event coincided with career fair week on campus, some students brought their resumes to have them reviewed by the faculty, who provided them with useful feedback and advice.

Lastly, this MDI event served as the catalyst for the founding of a new IEEE Power and Energy Society Student Branch Chapter (SBC) at WWU. A table was set up to promote this new student organization. The promotion was successful, and 10 students signed up to launch this club. All SBC board positions have been filled and future chapter meetings are expected later in the year.

Detailed Event Report

1. Event Description

A speaker from industry working in the power and energy area gave a seminar at WWU on October 7, 2025. This event allowed students from the electrical and computer engineering department and IES to learn about the latest developments in power and energy. Students expressed significant interest in the topic and a new PES student branch chapter was launched.

2. Participants:

- Total Participants: 43
- IEEE Members: 25
- PES Members: 05
- Students / YP / Professionals: -

3. Activities Conducted:

- Technical Talks
- Panel Discussions
- Networking Sessions

4. Outcomes & Impact:

The event directly led to the successful launch of a new IEEE PES Student Branch Chapter at Western Washington University, with 10 students signing up and all board positions filled. It increased awareness of IEEE PES, strengthened student leadership, and enhanced understanding of data analytics applications in the power and energy sector. The networking session further supported career development through faculty and industry interaction.

5. Feedbacks & Testimonials

Participants provided very positive feedback, praising the practical industry insights and engaging presentation. Students valued the informal networking, resume feedback, and opportunity to interact with faculty and an industry expert. Overall, the event was viewed as informative, motivating, and instrumental in encouraging involvement in IEEE PES activities.

Photo Section

MDI-25-106-R10

Circuit Design and Implementation Workshop for Students of Government Schools

Region	: 10
Section	: IEEE Delhi Section, India
Type of Chapter	: PES Professional Chapter
OU	: CH10219 - Delhi Section Jt. Chapter, PE31/IA34, Region 10
MDI Leader	: Prof. Alka Singh

Event Summary *(Minimum 200 words)*

A one day workshop titled “Circuit Design and Implementation Workshop for Students of Government Schools” was organized in collaboration with IEEE PES Delhi Chapter at Delhi Technological University on 17th September 2025. The workshop was designed exclusively for government school children and the venue of the event was Advanced Power System laboratory of Electrical Engineering Department in Delhi Technological University. It was a unique opportunity for underprivileged section of the society. School children of 11th, 12th class having science background learnt and implemented basic circuit design, component identification, wiring and testing. The participating students were divided into several groups and each group carried out the task of circuit design and implementation and testing. The workshop provided hands on experience to the children and motivated them to take up science and engineering studies in future. Over 30 students and 20 faculty members/ research scholars participated in the one-day workshop. There was very good participation of girls among the participant students. The workshop aligned with IEEE PES mission to advance innovation, education and collaboration in power and energy. The workshop also promoted practical knowledge by bridging theory with real world circuit applications. The certificates were also distributed to the participating students and encouraged and motivated to take to science and engineering in future.

Detailed Event Report

1. Event Description

On September 17, 2025, the Department of Electrical Engineering, Delhi Technological University (DTU), in collaboration with IEEE Power & Energy Society (PES) under the PES MDI 2025 Cycle-1, organized a one-day Circuit Design and Implementation Workshop for Class 11 and 12 students from nearby government schools. The outreach-focused initiative aimed to bridge the gap between theoretical science education and practical engineering applications by introducing students to fundamental electrical concepts through expert lectures and hands-on experimentation in a university laboratory environment. Aligned with the IEEE PES mission, the workshop sought to ignite interest in STEM disciplines, enhance problem-solving skills, and make technical education more accessible to young learners.

The program began with an opening session outlining the importance of engineering and IEEE PES, followed by three expert lectures delivered by DTU faculty on IEEE and PES,

fundamentals of circuit design, and electronic components. The core of the workshop was a two-hour hands-on session led by faculty members and PhD scholars, where students built and tested basic electronic circuits using breadboards and components. Participants assembled a regulated 5V DC power supply from a 220V AC input, observed waveforms at different stages, measured voltage and ripple using oscilloscopes, and learned practical debugging and safety techniques.

Extensive planning, volunteer training, school outreach, and social media promotion ensured strong participation and smooth execution. The workshop concluded with interactive discussions, certificate distribution, and feedback collection, successfully providing students with an engaging first-hand experience of engineering and inspiring them to explore future careers in power and energy.

2. Participants:

- Total Participants: 50
- IEEE Members: 08
- PES Members: 04
- Students / YP / Professionals: 40

3. Activities Conducted:

- Workshop
- Technical Talks

4. Outcomes & Impact:

The workshop has encouraged a number of UG / PG students to join IEEE and IEEE PES Student branch. Even many faculty members and PhD scholars will now be motivated to join IEEE-PES Delhi Chapter. An introduction to IEEE PES and its mission to empower power and energy professionals through networking, knowledge sharing and technological advancement was shared with the participants.

5. Feedbacks & Testimonials

Feedback from participating students and educators was highly positive, indicating the strong impact of the Circuit Design and Implementation Workshop. Students appreciated the clear explanations provided during the expert lectures and found the hands-on circuit-building session particularly engaging and enjoyable. Many participants expressed excitement at working with real electronic components and laboratory instruments for the first time, noting that the practical activities helped them better understand concepts they had previously studied only in theory. Teachers and volunteers commended the structured approach, supportive guidance by faculty and PhD scholars, and the emphasis on safety and real-world applications. Overall, the feedback reflected high satisfaction with the organization, content, and learning experience, confirming the workshop's success in sparking interest in engineering and STEM education among school students.

Photo Section

MDI-25-050-R08

Nexafem: Women Powering the Future

Region	: 08
Section	: IEEE Denmark Section
Type of Chapter	: PES Professional Chapter
OU	: IEEE PES Denmark Chapter (CH10803), Denmark
MDI Leader	: Mahshid Javidsharifi

Event Summary *(Minimum 200 words)*

To promote gender equality and leadership in the energy sector, the IEEE PES Denmark Chapter organized a full-day event titled “Nexafem: Women Powering the Future” on 3 October 2025 in Aalborg, Denmark, in collaboration with IEEE PES Women in Power (WiP) and CIGRE Women in Energy (WiE) Denmark. The morning session featured technical talks on grid compliance by experts from AFRY and Energinet DK, followed by a networking lunch that encouraged cross-sector interaction.

The afternoon session, supported by the IEEE PES Member-Driven Initiative (MDI) and hosted by the Chair of IEEE PES WiP Denmark, included keynote talks, interactive small-group discussions, and guided research lab tours. Female leaders from Ørsted, Norlys Energy Trading, Siemens Energy, and Aalborg University shared career journeys and leadership insights, while facilitated discussions explored challenges, future skills, and actions for academia and industry.

A total of 50 participants registered, with 43 attending in person, representing students, young professionals, academics, and industry engineers. IEEE PES and WiP outreach materials were distributed to support membership growth. The event generated strong engagement, positive feedback, and new collaboration opportunities, reinforcing the PES mission on diversity, professional development, and student outreach. Follow-up discussions with partner organizations further laid the foundation for future joint initiatives.

Detailed Event Report

1. Event Description

Nexafem: Women Powering the Future was held on 3 October 2025 at AAU Innovation, Aalborg University, as a joint initiative of the IEEE PES Denmark Chapter, IEEE Women in Power Denmark (WiP DK), and CIGRE Women in Energy Denmark. The event was promoted through LinkedIn, IEEE and CIGRE mailing lists, university channels, and professional networks to reach students, young professionals, and industry experts across Denmark.

The morning session, co-led by IEEE WiP DK and CIGRE, featured welcome remarks followed by technical presentations on grid compliance by experts from AFRY and Energinet DK, and concluded with a networking lunch. The afternoon session, organized under the IEEE PES

Member-Driven Initiative and hosted by WiP DK, included keynote talks by representatives from Ørsted, Norlys Energy Trading, Siemens Energy, and Aalborg University. Participants then engaged in facilitated small-group discussions on current sector challenges and future skills, guided by event-branded discussion forms to capture insights.

The program concluded with guided tours of AAU Energy Labs, including power, battery, PV, and IoT laboratories. IEEE PES and WiP brochures were distributed to all attendees, and a post-event feedback survey was shared to gather input for future initiatives.

2. Participants:

- Total Participants: 43
- IEEE Members: 20
- PES Members: 11
- Students / YP / Professionals: -

3. Activities Conducted:

- Technical Talks (IEEE & CIGRE sessions)
- Panel/Speaker Presentations
- Networking Sessions (lunch + refreshments)
- Facilitated Group Discussions
- Guided Research Lab Tours (AAU Energy)
- DEI Outreach and Visibility
- Distribution of PES/WiP Promotional Materials
- Printed Discussion Forms with Guiding Questions
- Feedback Form Sent Post-Event

4. Outcomes & Impact:

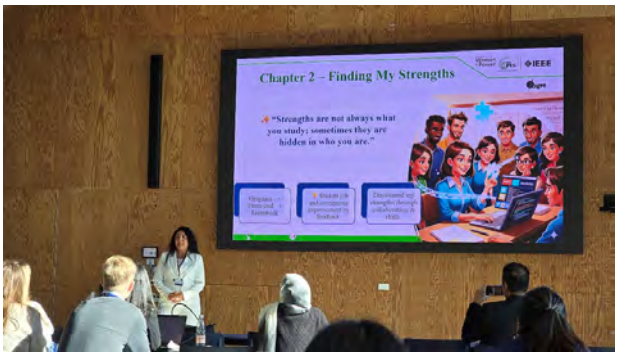
- Strengthened collaboration between IEEE PES Denmark, IEEE WiP Denmark, and CIGRE WiE Denmark, with new partnerships initiated for future joint events.
- High participant engagement, with strong appreciation for the interactive, well-facilitated group discussions and the combined format of technical talks, discussions, and lab tours.

- Increased visibility of IEEE PES and WiP among students and young professionals, with several attendees expressing interest in membership and future involvement.
- Actionable insights gathered through structured discussion forms and feedback surveys to inform and improve future IEEE PES Denmark initiatives.

5. Feedbacks & Testimonials

➔ I believe the collaboration between IEEE and CIGRE has strengthened my motivation to apply my skills in the energy sector.
➔ For future events consider how people-focused professionals can drive culture change, leadership development, and workforce planning in the energy sector.
➔ I would appreciate having the ability to discuss more about the ongoing orientations.
➔ Support women's participation in conferences, industry groups, and certifications.

Photo Section



MDI-25-112-R10

AMPOWER – A Project Expo on Mission Net Zero 2070

Region	: 08
Section	: IEEE Kerala Section, India
Type of Chapter	: PES SBC
OU	: IEEE PES SBC MACE, India
MDI Leader	: Jes Gigo

Event Summary *(Minimum 200 words)*

To enhance PES visibility and foster collaboration, IEEE PES SBC MACE, in association with the IEEE IE/PELS Jt. Chapter MACE and the IEEE PES Kerala Chapter, organized AMPOWER – A Project Expo on Mission Net Zero 2070 on 18 October 2025 at Mar Athanasius College of Engineering, Kothamangalam. The expo provided a platform for students to showcase innovative projects focused on sustainability and India's Mission Net Zero 2070 goals. Over 15 teams and 40 participants presented prototypes in areas such as renewable energy, smart power systems, waste management, and other carbon-neutral technologies. A panel of faculty and industry professionals evaluated the projects, recognizing the best teams for creativity, technical excellence, and societal impact. This initiative aimed to introduce students to IEEE Power and Energy society, strengthen local chapter engagement, and offer practical exposure to emerging trends in power and energy systems. Many young students were brought as viewers for the event to help them ideate and build such innovative and impactful projects in the coming future and collaborate more with IEEE PES Society

Detailed Event Report

1. Event Description

AMPOWER was conceptualized as a student project expo showcasing sustainable and energy-efficient innovations aligned with India's Mission Net Zero 2070. Organized by IEEE PES SBC MACE in collaboration with the IEEE IE/PELS Joint Chapter MACE and IEEE PES Kerala Chapter, the event aimed to promote interdisciplinary innovation in renewable energy, carbon neutrality, and sustainable technologies.

Planning began weeks in advance, with promotions conducted through social media, college circulars, and the IEEE Kerala Section network, ensuring participation from nearly 20 colleges. From 40 applications received, 15 teams were shortlisted to exhibit their projects. The expo was held on 18 October 2025 at the MACE campus and featured project stalls presenting prototypes related to solar optimization, electric mobility, energy-efficient systems, and sustainable resource management. Projects were evaluated by a panel of faculty members and industry professionals based on creativity, technical merit, and real-world relevance.

In total, around 40 student innovators presented their projects, while 110 students attended as viewers, gaining exposure to engineering concepts and practical implementations. A Membership Development Session was conducted by Jes Gigo, Chair of IEEE PES SBC MACE, highlighting IEEE PES opportunities, with additional insights from Engr. Harikumar V.P, Vice Chair of IEEE PES Kerala Chapter. The event concluded with awards for top-performing teams and remarks from college dignitaries, inspiring participants and viewers to pursue future projects and competitions in the energy domain.

2. Participants:

- Total Participants: 140
- IEEE Members: 90
- PES Members: 35
- Students / YP / Professionals: -

3. Activities Conducted:

- Project Exhibition and Demonstration
- Technical Evaluation and Judging Session
- Networking Interaction between Participants and Evaluator
- Award and Certificate Distribution Ceremony
- PES MD Session

4. Outcomes & Impact:

The AMPOWER expo significantly increased awareness of sustainable and energy-efficient technologies among participants and visitors. Students gained valuable experience in presenting their projects to technical experts, enhancing their communication, teamwork, and project management skills, while fostering a shared vision for a sustainable future among participants, viewers, and volunteers.

The event marked the first collaboration between IEEE PES SBC MACE and the IEEE PES Kerala Chapter, in association with the IEEE IE/PELS Joint Chapter MACE, which greatly expanded the program's reach and participation. Interaction with the IEEE PES Kerala Chapter Vice Chair added further value and encouragement to the students.

As a key outcome, IEEE PES SBC MACE membership grew from 39 to 75 members, reflecting increased enthusiasm and engagement. Volunteer participation also rose significantly, strengthening the chapter's capacity to organize future initiatives. Overall, AMPOWER reinforced IEEE PES SBC MACE's mission of nurturing young engineers committed to sustainability and clean energy solutions while building a stronger, collaborative PES community.

5. Feedbacks & Testimonials

Participants and visitors provided very positive feedback, appreciating the innovative project displays and the strong focus on sustainability and energy efficiency. Student exhibitors valued the opportunity to present their work to experts and peers, while viewers found the explanations engaging and inspiring. Overall, the event was praised for its organization, collaborative spirit, and its effectiveness in motivating students to pursue sustainable energy solutions and active involvement in IEEE PES activities.

Photo Section

MDI-25-R10-113

Bringing Light to Learning: Establishing Solar-Powered Study Space in Rural School

Region	: 10
Section	: IEEE Bangalore Section, India
Type of Chapter	: PES SBC
OU	: Christ University SBC17341, India
MDI Leader	: Dr. Vijaya Margaret

Event Summary *(Minimum 200 words)*

To promote renewable energy and support education through humanitarian action aligned with SDG 7 (Affordable and Clean Energy), the IEEE PES Student Branch Chapter at CHRIST (Deemed to be University), Bangalore, organized an outreach program titled “Bringing Light to Learning: Establishing Solar-Powered Study Space in a Rural School” on September 1, 2025 at St. Gasper School, Kithiganur, Karnataka. Funded by the IEEE PES Humanitarian Activities Committee (HAC), the initiative focused on installing and commissioning a solar power system to create a reliable study space for students.

The program combined technical implementation with student engagement. Solar panels were installed on the school rooftop under the supervision of LugarOne Solutions and student volunteers. Simultaneously, over 100 school students participated in sustainability-focused activities, including a poster-making competition on “Solar Heroes: Shine Bright, Save Earth”, 3D model presentations, and interactive games for younger children.

The project enhanced educational infrastructure while demonstrating the practical benefits of clean energy adoption. By reducing dependence on fossil-fuel-based electricity, the initiative supports SDG 4 (Quality Education), SDG 7, and SDG 13 (Climate Action). The installed system is estimated to offset carbon emissions equivalent to nearly 1.99 lakh kilometres of coal-based travel. The event also strengthened leadership and project execution skills among IEEE PES student volunteers, with plans in place to monitor system performance and publish a technical impact report over the next six months.

Detailed Event Report

1. Event Description

The IEEE PES Student Branch Chapter at CHRIST (Deemed to be University), Bangalore, in collaboration with the Department of Electrical and Electronics Engineering, organized an IEEE PES MDI Outreach Program titled “Bringing Light to Learning”. Funded by the IEEE Power & Energy Society Humanitarian Activities Committee (PES HAC), the initiative focused on establishing a solar-powered study space at St. Gaspar Vidyalaya, a rural school in Kithiganur. The project engineering and installation were carried out by student volunteers with technical support from LugarOne Solutions.

The primary objective was to install and commission a reliable, clean energy source to support learning at the school. The program also aimed to raise awareness about renewable energy and sustainability among students, support UN SDGs 7 (Affordable and Clean Energy) and 4 (Quality Education), promote climate-conscious practices, strengthen community engagement, and provide leadership and project-execution experience to student organizers. The event was planned and executed under the guidance of faculty and student leaders and conducted between September 1 and September 28, 2025.

Key activities included a technical session on solar panel installation and demonstration, creative educational competitions such as a poster-making contest and 3D model presentations on sustainability, interactive games for younger students, and a closing ceremony with prize distribution and volunteer recognition. The event successfully combined technical implementation with community outreach and student engagement.

2. Participants:

- Total Participants: 100
- IEEE Members: 33
- PES Members: 30
- Students / YP / Professionals: - 30/ -/ 03

3. Activities Conducted:

- Solar Panel Installation
- Competitions
- Outreach Activities

4. Outcomes & Impact:

The event strengthened collaboration between IEEE PES SBC and the local community, established a successful industry partnership with LugarOne Solutions, and enhanced CHRIST University's visibility within IEEE PES HAC Region 10. Student volunteers gained hands-on experience in leadership, project execution, and community engagement.

A major outcome was the successful commissioning of a 2.36 kWp solar-powered study space with battery backup, delivering reliable power and reducing grid consumption by over 3,000 kWh annually. More than 100 school students participated, gaining awareness of renewable energy and sustainability. The project contributes to carbon emission reduction equivalent to avoiding coal burn from approximately 1.99 lakh kilometres of travel.

5. Feedbacks & Testimonials

Feedback from the school community, participants, and organizers was highly positive. School staff and students appreciated the reliable solar-powered study space and the engaging way renewable energy concepts were introduced. Student volunteers valued the hands-on technical experience and the opportunity to contribute to a meaningful community project. Overall, the event was praised for its strong organization, practical impact, and effectiveness in promoting sustainability, education, and social responsibility through IEEE PES initiatives.

Photo Section

MDI-25-114-R10

Power with Purpose: IEEE PES Workshop on Energy for Society

Region	: 10
Section	: IEEE Madras Section, India
Type of Chapter	: IEEE Student Branch
OU	: STB16621 - Kings College of Engineering
MDI Leader	: Dr Suganya Govindarajan

Event Summary *(Minimum 200 words)*

To enhance IEEE PES visibility and promote student engagement in emerging technologies, the IEEE Student Branch Chapter of Kings College of Engineering organized a one-day workshop on “POWER WITH PURPOSE: IEEE PES WORKSHOP ON ENERGY FOR SOCIETY” on 1st November 2025. The event was conducted under the IEEE PES Member Driven Initiative (MDI) program, with sponsorship from the IEEE PES Madras Chapter.

The workshop brought together academicians, industry professionals, and students to explore advancements in AI, IoT, and Smart Power Systems. Eminent speakers such as Dr. M. Venkateshkumar, Assistant Professor (SG), Amrita School of Engineering, Amrita Vishwa Vidyapeetham; Dr. R. Azhagumurugan, Professor and Head of the Department, Sri Sairam Engineering College; Dr. C. Kumar, Professor and Head of the Department, Karpagam College of Engineering; Dr. Shivashankar Sukumar, Associate Consultant, Global Logic Pvt. Ltd.; and Dr. P. Raja, Associate Professor, NIT Trichy, shared their expertise across five technical sessions. Topics included smart grid integration, solar PV challenges, IoT-driven cloud innovations, DC microgrid protection, and AI applications in energy optimization.

Over 150 students and young professionals from various institutions participated, gaining valuable insights into the role of AI and IoT in shaping future power systems. Each participant received a workshop kit containing a concept booklet with project idea sheets to support project development beyond the event. The event successfully bridged the gap between theory and practical applications, strengthened IEEE PES outreach, and inspired participants to explore AI- and IoT-based research and projects for sustainable energy solutions.

Detailed Event Report

1. Event Description

The IEEE PES Member Driven Initiative (MDI) Sponsored Workshop on “POWER WITH PURPOSE: IEEE PES WORKSHOP ON ENERGY FOR SOCIETY” was organized by the IEEE PES Student Branch Chapter of Kings College of Engineering on 1st November 2025. The initiative aimed to strengthen IEEE PES visibility, promote interdisciplinary learning, and enhance student awareness of modern trends in power and energy domains through artificial intelligence and IoT integration.

The workshop was conceived as part of the IEEE PES mission to advance scientific and engineering knowledge for the betterment of society. Its primary objectives were to introduce students to emerging technologies in artificial intelligence, IoT, and smart power systems, foster meaningful interaction between academia, industry, and students, promote awareness of IEEE PES membership, and encourage project-oriented thinking aligned with sustainable and future-ready energy solutions.

The proposal was submitted under the IEEE PES MDI program and approved on September 16, 2025. After coordination with the IEEE PES Madras Chapter and invited experts, the event was scheduled for 1st November 2025. Pre-event planning included speaker confirmation, design and printing of concept booklets, and the event promotion.

The organizing team also handled event promotion through institutional circulars, social media announcements, and IEEE networks, ensuring wide participation from students and young professionals. Invitations were extended to students across Tamil Nadu and neighbouring regions.

2. Participants:

- Total Participants: 150
- IEEE Members: 51
- PES Members: 09
- Students / YP / Professionals: 70

3. Activities Conducted:

The IEEE PES MDI Sponsored Workshop on “Power with Purpose: IEEE PES Workshop on Energy for Society” featured five technical sessions focusing on recent advancements in the power and energy domain. The sessions covered key topics such as smart grid integration, solar PV challenges, IoT-driven cloud innovations, DC microgrid protection, and AI applications in energy optimization. Each session emphasized the role of intelligent technologies in enhancing energy efficiency, reliability, and sustainability. The event provided a platform for participants to gain exposure to emerging research areas and practical insights into how AI and IoT are shaping the future of energy systems. The workshop concluded with a reflection session and certificate distribution, marking the successful completion of the program.

4. Outcomes & Impact:

The IEEE PES MDI–sponsored workshop “Power with Purpose: IEEE PES Workshop on Energy for Society” successfully advanced IEEE PES goals through increased awareness and engagement. The event contributed to PES membership growth, with several students initiating new memberships and existing IEEE members expressing interest in PES. Strong volunteer participation enhanced leadership and teamwork skills among student members. Collaboration between Kings College of Engineering SBC, IEEE PES Madras Chapter, and institutions such as NIT Trichy and Amrita Vishwa Vidyapeetham was strengthened, paving the way for future joint activities. The hybrid format enabled wide participation and improved understanding of AI, IoT, and smart power systems. Additionally, the workshop inspired student-led mini projects, ensuring sustained technical engagement beyond the event.

5. Feedbacks & Testimonials

Participant feedback was highly positive, with attendees appreciating the relevance of the topics and the effective blend of technical content and real-world applications. Students valued the insights into AI, IoT, and smart power systems, as well as the opportunity to interact with experts and peers. Overall, the workshop was regarded as well-organized, informative, and motivating, encouraging continued involvement in IEEE PES activities and project-based learning.

Photo Section

MDI-25-016-R09

Bootcamp & Hackathon: Python for Brazilian Power Sector Data Analysis

Region	: 09
Section	: IEEE Northeast Brazil Section
Type of Chapter	: PES SBC
OU	: SBC66301 - Universidade Federal do Rio Grande do Norte
MDI Leader	: Janaina da Cruz Carvalho

Event Summary *(Minimum 200 words)*

To enhance the visibility of IEEE Power & Energy Society (PES) and promote the IEEE PES Student Branch Chapter at the Federal University of Rio Grande do Norte (UFRN), Brazil, the initiative "We Bring MORE POWER TO THE FUTURE" was organized, combining a virtual bootcamp, an in-person hackathon, and a technical visit. The project aimed to build capacity among students and young professionals in emerging technologies—Python, data analysis, and artificial intelligence—applied to the Brazilian power sector.

The two-week virtual bootcamp (August 25–September 5, 2025) covered Python fundamentals, machine learning, and generative AI applied to energy data, reaching participants from 22 institutions across all five regions of Brazil. The sessions were delivered in collaboration with the Conect2AI research group and featured practical, energy-focused case studies. The one-day hackathon held on September 12, 2025, at UFRN challenged participants to develop AI-driven solutions for the Brazilian power system, with top teams receiving incubation and mentorship opportunities supported by Metrópole Parque. The initiative concluded with a technical visit to Porto Digital and the Northeast Operations Center of Brazil's National System Operator (ONS), linking innovation, academia, and real-world power system operations. Overall, the program strengthened IEEE PES visibility, fostered innovation and entrepreneurship, and enhanced engagement and membership growth among students and young professionals.

Detailed Event Report

1. Event Description

To enhance the visibility of the IEEE Power & Energy Society (PES) and strengthen the IEEE PES Student Branch Chapter at the Federal University of Rio Grande do Norte (UFRN), Brazil, the initiative "We Bring MORE POWER TO THE FUTURE" was organized as a multi-stage program integrating a virtual bootcamp, an in-person hackathon, and a technical visit. The initiative was designed to empower students and young professionals with practical skills in emerging technologies such as Python programming, data analysis, and artificial intelligence, with direct application to challenges in the Brazilian power sector.

The two-week virtual bootcamp, conducted from August 25 to September 5, 2025, provided structured training on Python fundamentals, machine learning, and generative AI applied to energy data. Delivered in collaboration with the Conect2AI research group, the bootcamp featured instructors from UFRN who shared real-world energy case studies. The program achieved nationwide reach, engaging participants from 22 institutions across all five regions of Brazil.

Building on this foundation, a one-day hackathon was held on September 12, 2025, at UFRN, challenging teams to develop AI-driven solutions to real problems in the Brazilian power system. Top-performing teams received incubation and mentorship opportunities supported by Metrópole Parque, encouraging innovation and entrepreneurship. The initiative concluded with a technical visit to Porto Digital and the Northeast Operations Center of Brazil's National System Operator (ONS), providing participants with direct exposure to industry practices and large-scale power system operations. Overall, the program significantly increased IEEE PES visibility, fostered innovation and collaboration, and strengthened student engagement and membership growth.

2. Participants:

- Total Participants: 110+
- IEEE Members: 30+
- PES Members: 20+
- Students / YP / Professionals: -

3. Activities Conducted:

- Workshops: Applied Python and AI Data Analysis Bootcamp (10 days).
- Technical Talks: Opening Lectures (Power Sector, IEEE/PES) and Evaluation Panel at the Hackathon.
- Competitions: Hackathon competition and awards for Data and AI Solutions for the Power Sector.
- Panel Discussions: Specialist Panel (faculty and Metrópole Parque) for evaluating Hackathon solutions.
- Networking Sessions: Breaks and Registration at the Hackathon, Visit to Porto Digital and ONS Operations Center.

- Panel Discussions: Specialist Panel (faculty and Metrópole Parque) for evaluating Hackathon solutions.
- Technical Visit to ONS and Porto Digital, promoting connection with the industry and the innovation ecosystem.
- Outreach Activities: Technical Visit to ONS and Porto Digital, promoting connection with the industry and the innovation ecosystem.

4. Outcomes & Impact:

The initiative significantly enhanced the visibility of IEEE PES SBC UFRN, strengthened partnerships with Conect2AI, Metrópole Parque, and other IEEE chapters, and converted the competition into a business acceleration opportunity. Over 110 students received hands-on training in Python and AI, while the hackathon produced innovative prototypes with startup potential. The bootcamp reached participants from 22 institutions nationwide, and the technical visit connected academic learning with real power system operations. Overall, the project fostered leadership and innovation and increased IEEE PES SBC UFRN membership from 10 to over 20, achieving more than 100% growth.

5. Feedbacks & Testimonials

Participant feedback was highly positive, with students appreciating the practical focus on Python, AI, and real-world power sector challenges. Attendees valued the combination of the bootcamp, hackathon, and technical visit, noting that it provided a complete learning journey from theory to application. Many highlighted the mentorship and incubation opportunities as especially motivating. Overall, the initiative was praised for its strong organization, industry relevance, and its ability to inspire continued engagement with IEEE PES activities.

Photo Section

MDI-25-053-R08

Electromobility Workshop

Region	: 08
Section	: IEEE Kenya Section
Type of Chapter	: PES SBC
OU	: SBC60210474 - Dedan Kimathi University of Technology
MDI Leader	: Josephine Maina

Event Summary *(Minimum 200 words)*

To promote awareness, technical capacity, and student engagement within the rapidly evolving e-mobility sector, the three joint PES Student Chapters hosted a comprehensive workshop aimed at introducing undergraduate engineering students to key technologies shaping sustainable transportation in Africa. The event brought together forty enthusiastic participants and featured three expert-led workshop sessions followed by an engaging panel discussion.

The primary objective of the workshop was to equip students with foundational knowledge and practical exposure to critical aspects of the e-mobility ecosystem. Sessions covered Battery Technologies for E-Mobility, EV Charging Infrastructure, including software systems, connector types, and practical applications, as well as Energy Systems that power electric mobility solutions. These sessions were facilitated by industry professionals who provided both technical insights and real-world context, aligning strongly with the IEEE PES mission of fostering technical training and professional development in power and energy fields.

A significant highlight of the event was the hands-on demonstration featuring an electric vehicle brought by one of the speakers from Kenya Power. This practical session allowed students to interact directly with EV technology, reinforcing the workshop lessons through experiential learning. The subsequent panel discussion, themed “How Students Can Lead Africa’s E-Mobility Revolution,” inspired participants to consider their role in driving innovation and sustainability within the continent.

The event strengthened collaboration between the three student chapters, enhanced student participation, and supported the mission of advancing clean energy solutions while preparing the next generation of power and energy professionals. There was an uptick in PES membership from the non-PES attendees after the event.

Detailed Event Report

1. Event Description

Kenya’s ongoing shift toward renewable energy and electric transport has created opportunities for young engineers to innovate in areas such as battery systems, EV charging, software infrastructure, and energy systems integration. The workshop was therefore conceived as an

avenue to bridge the gap between classroom learning and real-world applications, aligning with IEEE PES's mission of fostering technical excellence, student engagement, and advancements in sustainable power and energy systems.

The goals of the program were to introduce students to core technologies supporting the e-mobility ecosystem, provide professional guidance through expert-led sessions and panel discussions, inspire student participation in Africa's e-mobility revolution through innovation and leadership, strengthen collaboration between academia and industry in the power and energy sector, and enhance IEEE PES visibility while driving PES membership growth.

Planning for the event began weeks in advance, involving coordination with three key industry speakers and four panelists specializing in electric mobility, charging systems, and energy systems. The organizing team ensured logistical arrangements such as venue setup, time management, and stakeholder coordination. A clear timeline was established to balance technical sessions, interactive discussions, and networking opportunities. The event was promoted through the LinkedIn pages of the three PES student chapters, as well as through campus networks and partner organizations. This helped attract a diverse audience of engineering students passionate about sustainable mobility.

2. Participants:

- Total Participants: 40
- IEEE Members: 32
- PES Members: 14
- Students / YP / Professionals: 36/ 0 / 4

3. Activities Conducted:

- Workshop
- Technical Talks
- Panel Discussion
- Networking Sessions

4. Outcomes & Impact:

The event increased interest in IEEE PES membership, with 17 non-PES participants expressing intent to join, and significantly improved PES visibility on campus, especially among early-year engineering students. Volunteer engagement also grew, as student members gained practical experience in event coordination and expressed interest in supporting future activities. Technically, attendees enhanced their understanding of battery systems, charging infrastructure, and energy systems integration, while networking sessions helped them connect with industry experts and explore career opportunities in Kenya's power and e-mobility sectors.

5. Feedbacks & Testimonials

- ➔ *"This workshop gave me a clear understanding of how battery systems and charging infrastructure actually work. I now feel more confident exploring projects in e-mobility."* — **Calvin Kamau**
- ➔ *"The panel discussion was very inspiring. Hearing how students can contribute to Africa's e-mobility revolution motivated me to start thinking about innovative solutions we can build locally."* — **Nancy Ndaruga**

Photo Section

MDI-25-123-R10

PowerTech Youth Bootcamp 2025

Region	: 10
Section	: IEEE Islamabad Section, Pakistan
Type of Chapter	: PES SBC
OU	: SBC60871B - Taxila Univ of Engineering and Tech, PE31
MDI Leader	: Rao Noman Sajid

Event Summary *(Minimum 200 words)*

To advance technical training, professional development, and student engagement in alignment with the IEEE PES mission, the IEEE PES Student Branch Chapter UET Taxila organized the PowerTech Youth Bootcamp 2025. The objective was to equip engineering students with practical skills, industry exposure, and confidence to pursue careers in the power and energy sector. The event targeted undergraduate students, young researchers, and emerging professionals eager to enhance both their technical and professional competencies.

The bootcamp featured four focused sessions. Dr. Ali Mughal opened with a practical introduction to MATLAB Simulink, enabling participants to understand real-world system modeling and safe simulation practices. Dr. Faisal Nadeem followed with an insightful session on effective LinkedIn engagement, helping students improve their professional branding and networking strategies. In a strong DEI-driven segment, Ms. Mahwish Anwar, PIA's first female Flying Spinner Engineer, inspired students—especially women in STEM—through her talk "Empower HER." The concluding talks by Mr. Muhammad Ayub (Former MD NTDC), Mr. Nosherwan Shoaib (Chair, IEEE Islamabad Section), and Mr. Saqlain (SDO, IESCO F-6) highlighted modern power systems, IEEE opportunities, and smart distribution techniques.

The event successfully enhanced PES visibility, encouraged active chapter participation, and provided students with valuable technical knowledge and career guidance, making it a meaningful and impactful initiative.

Detailed Event Report

1. Event Description

The PowerTech Youth Bootcamp 2025 was held from October 21–23, 2025 at the Department of Electrical Engineering, UET Taxila, and was organized by IEEE PES UET Taxila with the aim of promoting technical learning, professional development, and student engagement.

The bootcamp featured a series of focused technical and professional modules. Module 1, Simulink Showcase, was delivered by Dr. Ali Mughal and introduced students to the use of MATLAB Simulink for real-world control system applications. Module 2, Energize Your

Network, led by Dr. Faisal Nadeem, emphasized the importance of LinkedIn, personal branding, and effective professional networking for career growth.

An inspiring session in Module 3 featured Mahwish Anwar, PIA's first female Flying Spinner Engineer, who shared her professional journey and motivated students—especially women—to pursue leadership and innovation in engineering. Module 4, presented by Mr. Muhammad Ayub, focused on recent advancements in Pakistan's power sector, highlighting modernization efforts, existing challenges, and future opportunities for engineers. Module 5, conducted by Mr. Nosherwan Shoaib, outlined the benefits of IEEE membership, including access to technical resources, global exposure, and professional skill development. Module 6, delivered by Mr. Saqlain, covered smart power distribution systems, with insights into underground cabling and modern distribution practices. Each session concluded with interactive Q&A segments and active student discussions, enhancing engagement and learning outcomes.

2. Participants:

- Total Participants: 130
- IEEE Members: 35
- PES Members: 15
- Students / YP / Professionals: Mostly undergraduate students; professionals as speakers

3. Activities Conducted:

- Hands-on Technical Workshops
- Professional Development Session
- Industry Expert Talks
- Women Empowerment
- Networking and Collaboration
- Q&A and Discussion Forums
- Volunteer Recognition Ceremony

4. Outcomes & Impact:

The PowerTech Youth Bootcamp 2025 helped students gain both technical and professional skills. Many participants showed interest in joining IEEE PES and volunteering in future events.

The sessions encouraged practical learning, teamwork, and connection with industry experts. The event also helped strengthen PES UET Taxila's image within the IEEE Islamabad Section

5. Feedbacks & Testimonials

- ➔ *"The Simulink session helped me understand how simulations work in real engineering problems." (Participant)*
- ➔ *"The LinkedIn session was very useful; I learned how to improve my profile and connect with professionals." (Student Volunteer)*

Photo Section

MDI-25-134-R10

Skill Development Workshop on AI for Microgrids & Sustainable EVs (AIMS-2025)

Region	: 10
Section	: IEEE Kolkata Section, India
Type of Chapter	: IEEE PES Professional Chapter
OU	: IEEE Kolkata Section Jt. Chapter, IA34/PE31-Rourkela, CH11091, India.
MDI Leader	: Dr. Monalisa Pattnaik

Event Summary *(Minimum 200 words)*

The rapid adoption of Electric Vehicles (EVs) and the growing integration of distributed renewable energy resources are transforming today's power systems into dynamic, decentralized networks. Microgrids play a pivotal role in enabling resilient, flexible, and sustainable energy infrastructures, while advanced Energy Storage Systems (ESS) are essential to ensure stability, reliability, and efficiency. Artificial Intelligence (AI) is emerging as a critical enabler in this transition. From optimizing EV charging and discharging schedules to enhancing microgrid control, predictive maintenance, demand forecasting, and real-time energy management, AI-driven solutions unlock new opportunities for efficiency improvement and sustainability.

This workshop aims to bring together researchers, industry practitioners, and policymakers to explore the convergence of AI, microgrids, EVs, and storage technologies. Discussions will focus on innovative AI methodologies, practical case studies, deployment challenges, and future directions toward building intelligent, sustainable, and resilient energy ecosystems.

The proposed 2-days skill development workshop on "AI for Microgrids & Sustainable EVs (AIMS-2025)" is designed to equip Electrical, Electronics and Computer Science Engineering students (both urban and rural) across Odisha, India with the competencies and skills needed to thrive in the future AI-powered world. The workshop successfully fostered technical skill development, interdisciplinary collaboration, and awareness of sustainable energy innovations. Supported by IEEE PES, the event served as an impactful platform for empowering the next generation of engineers to contribute to a cleaner, smarter, and more resilient energy future.

The IEEE Power & Energy Society (PES)–sponsored Skill Development Workshop AIMS-2025 was successfully conducted with the aim of enhancing technical competencies and promoting innovation in smart microgrid. More than 80 students and professionals from across Region 10 took part in the workshop, actively contributing to discussions on the future challenges of the energy sector. The initiative was designed to familiarize students with IEEE PES, energize local chapter participation, and offer practical experience with emerging developments in role of AI for microgrid and EV technologies.

Detailed Event Report

1. Event Description

The workshop contributes to the achievement of United Nations (UN) Sustainable Development Goals (SDGs), particularly SDG 7 (Affordable and Clean Energy), SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), and SDG 13 (Climate Action), while aligning with SDG 4 (Quality Education) through its integration with UNESCO's ESD framework. The whole workshop is designed to incorporate skill development learning approaches to engage participants and enable them to upskill themselves.

Participants will engage in experiential learning through real-world challenge in the areas of Microgrids, EVs along with hands-on prototyping, and interdisciplinary collaboration. The workshop emphasizes the development of key sustainability competencies, including systems designing, planning, and ethical decision-making. By connecting with the UN SDGs, the initiative advances technical knowledge while nurturing social responsibility and worldwide relevance.

By fostering collaboration among academia, industry, and community innovators, the workshop seeks to drive scalable, community-led solutions in clean energy, EVs, AI and climate resilience. Expected outcomes include practical prototypes, improved preparedness for future challenges, and stronger innovation ecosystems that link education with real world impact.

2. Participants:

- Total Participants: 81
- IEEE Members: 34
- PES Members: 30
- Students / YP / Professionals: 28/06

3. Activities Conducted:

- Workshops: 01
- Technical Talks:04
- Panel Discussions:01
- Networking Sessions: 01

4. Outcomes & Impact:

The workshop engaged over 80 participants from IEEE Region 10, including students, researchers, and professionals, with strong participation in Q&A, discussions, and hands-on activities. Attendees gained practical skills in AI tools, microgrid simulation, DC microgrid control and protection, and EV charging techniques, leading to improved confidence in applying these technologies to real-world energy challenges. Feedback indicated a significant increase in awareness of emerging trends in AI-enabled microgrids and EVs. The event also strengthened networking and collaboration with IEEE PES professionals, increased interest in future PES activities, and enhanced chapter visibility and volunteer engagement.

5. Feedbacks & Testimonials

Participant feedback was highly positive, with attendees appreciating the strong balance between theory and hands-on learning. Many highlighted the practical sessions on AI-based microgrid optimization and EV charging as particularly valuable and relevant to current industry needs. Participants also praised the interactive discussions, knowledgeable speakers, and networking opportunities, noting that the workshop enhanced their technical confidence and motivated them to engage further with IEEE PES activities.

Photo Section

MDI-25-138-R10

Two days Workshop on “IEEE STEM Innovation Challenge: Renewable Energy and Smart Systems for Next-Ge Engineers”

Region	: 10
Section	: IEEE PES Madras Chapter, Chennai
Type of Chapter	: IEEE PES SBC
OU	: IEEE PES SBC, PE31,SBC08101, India
MDI Leader	: Dr.C.Muniraj

Event Summary *(Minimum 200 words)*

To enhance PES visibility and foster global collaboration, IEEE PES Student Branch Chapter, Department of Electrical and Electronics Engineering, Knowledge Institute of Technology, Salem in collaboration with IEEE PES Madras Chapter organized two days workshop on “IEEE STEM Innovation Challenge: Renewable Energy & Smart Systems for Next-Gen Engineers” featuring various panel sessions, model demonstration and Industry and Academician expert talks. Over 120 students and professionals participated from across various institutions, engaging in discussions on future energy challenges. This initiative aimed to introduce students to IEEE PES, increase local chapter activity and provide hands-on exposure to emerging trends in power and energy systems.

Detailed Event Report

1. Event Description

The workshop aimed to inspire engineering students to explore emerging technologies in renewable energy, smart systems and sustainable innovation. This initiative focused on strengthening STEM learning by combining technical lectures, hands on demonstrations and innovation challenges. Students actively engaged in practical sessions on solar energy systems, wind energy modeling, smart grid concepts, embedded controllers and modern power networks. In addition, specialized sessions were conducted on “Smart Controllers for Electrical Drives” and “Investigation of Power Quality Parameters in Electrical Drives,” enabling participants to explore advanced control strategies, drive performance analysis, and real-time monitoring techniques used in modern electrical systems.

The primary objective of the program was to ignite interest in clean-energy technologies, enhance problem-solving and teamwork skills, and provide participants with exposure to future career opportunities in sustainable engineering. Equal participation was encouraged to promote inclusiveness and gender equity in STEM learning.

In two days, the workshop featured multiple interactive sessions, including renewable energy simulations, Arduino-based smart system prototyping. Students worked in guided teams to develop innovative solutions for real-world power and energy challenges. Each session was led

by expert resource persons, supported by IEEE PES volunteers who facilitated group activities and coordination.

2. Participants:

- Total Participants: 120
- IEEE Members: 40
- PES Members: 19
- Students / YP / Professionals: 61

3. Activities Conducted:

- Workshops
- Technical Talks
- Outreach Activities

4. Outcomes & Impact:

The workshop is expected to generate meaningful outcomes by strengthening student engagement in IEEE PES activities and fostering a collaborative learning environment. A key measurable impact includes a projected increase in IEEE PES student membership as participants gain awareness of the professional benefits, technical resources and global opportunities offered by the society. The event will also enhance volunteer involvement encouraging students to take active roles in organizing future technical programs, competitions and outreach activities.

Through joint coordination between the IEEE PES Madras Chapter and the Student Branch Chapter, the workshop will promote stronger chapter collaboration, enabling shared resources, expertise exchange and sustained technical support for future initiatives. Additionally, participants will demonstrate their project presentations, leading to better preparedness for research, internships and industry-oriented projects. Overall, the event will create a lasting academic and professional impact by nurturing skilled, motivated and industry-ready next-generation engineers.

5. Feedbacks & Testimonials

“An excellent and inspiring knowledge-sharing workshop”

The participant feedback for the Two-Day Workshop on “IEEE STEM Innovation Challenge: Renewable Energy & Smart Systems for Next-Gen Engineers” was overwhelmingly positive. Attendees appreciated the depth and clarity of the technical sessions covering BLDC motors, axial flux motors, smart inverters, controllers, renewable energy resources and power quality analyzers. Many participants highlighted that the practical demonstrations made complex concepts easier to understand, particularly the modules on power quality analysis and hands-on equipment demonstrations.

Several participants also acknowledged that the sessions were beneficial for their future learning and career development, noting the relevance of topics like renewable energy and smart systems. Additionally, attendees expressed appreciation for the well-organized arrangements, including refreshments and overall coordination. Overall, the feedback indicates that the event successfully enhanced participants’ technical awareness, encouraged active learning, and delivered a meaningful and impactful educational experience.

Photo Section

MDI-25-140-R10

All India Students Young Professionals Women in Engineering Life Members Congress (AISYWLC 2025)

Region	: 10
Section	: IEEE Gujarat Section, India
Type of Chapter	: IEEE PES Professional Chapter
OU	: IEEE PES Chapter CH10494, India
MDI Leader	: Priyesh Chauhan

Event Summary *(Minimum 200 words)*

To strengthen awareness of the IEEE Power & Energy Society (PES) and inspire future engineers, a dedicated PES track was organized as part of the All India Students, Young Professionals, Women in Engineering & Life Members Congress (AISYWLC 2025). The session focused on the scope, technical impact, and membership benefits of PES, highlighting its role in advancing electric power systems, sustainable energy, and grid modernization.

The session attracted 48 undergraduate and postgraduate students, early-career professionals, and faculty members. Prof. Muhammed Kasim S, Senior Member of IEEE and former Chair of the IEEE Kerala Section, delivered the keynote address, outlining IEEE's evolution and PES's contributions to renewable integration, grid resilience, electrification, and energy storage through conferences, publications, technical committees, and scholarships.

An interactive quiz on modern power systems and PES activities enhanced engagement and active learning, with top performers recognized through certificates and prizes. Overall, the session increased participants' understanding of PES, encouraged professional development, and inspired nearly 20% of attendees to join IEEE PES, reinforcing the society's mission of student engagement, technical growth, and leadership in clean and reliable energy technologies.

Detailed Event Report

1. Event Description

This IEEE PES MDI–supported initiative was organized to introduce students and young professionals to the IEEE Power & Energy Society (PES), highlighting its mission, global network, and role in advancing electric power systems, renewable integration, and sustainable energy solutions. The event aimed to promote PES membership by showcasing professional, leadership, and technical benefits, conducting focused recruitment, and inspiring future leaders to contribute to PES priorities in innovation, DEI, and professional development.

The program was planned and executed by PES Chapter officers and student volunteers through coordinated weekly meetings covering speaker invitations, session design, quiz preparation, logistics, and promotions. PES MDI funding enabled professional execution by supporting

participant refreshments, certificates, quiz prizes, speaker mementos, and promotional materials, allowing broader participation and recognition.

The one-day event (11 February 2025) featured an opening session on IEEE and PES by Dr. Manisha Shah, followed by a keynote address by Prof. Muhammed Kasim S. on PES's role in sustainable energy and professional growth. An interactive quiz on PES initiatives and power system concepts enhanced engagement, with winners recognized during a closing ceremony. The event concluded with guidance on PES membership pathways and future opportunities.

2. Participants:

- Total Participants: 55
- IEEE Members: 50
- PES Members: 50
- Students / YP / Professionals: 42/0/08

3. Activities Conducted:

- Technical session on PES scope and opportunities
- Interactive quiz competition
- Networking and Q&A with the speaker
- Membership awareness drive

4. Outcomes & Impact:

The session significantly improved participants' understanding of IEEE PES and its role in advancing sustainable and future-ready power technologies, motivating students and young professionals to explore careers in power and energy engineering. Interactive discussions and quizzes enhanced engagement and real-world relevance. Approximately 20% of participants expressed interest in joining IEEE PES, while volunteer engagement and collaboration between the Student Branch and Section leadership were strengthened. Participants were also encouraged to pursue research, publications, and participation in PES flagship conferences.

5. Feedbacks & Testimonials

➔ *"The session gave me clarity on how PES can shape my career in energy systems."*

➔ *"The quiz was engaging and helped me test my knowledge in a fun way."*

➔ *"Learning about PES scholarships and conferences motivated me to get involved."*

Photo Section