

## **Annual Report 2024**

1. Did your chapter report your latest officer change using Vtools Officer Reporting?
2. Does your chapter have a webpage?  
<https://r10.ieee.org/delhi/chapters/power-energy-industry-applications/>
3. Please provide the date your website was last updated
4. Does your chapter use any social network platforms (Facebook, LinkedIn, Instagram, Twitter, ...) to obtain on-line presence?
5. Briefly share the top three challenges your chapter is facing.

### **(i) Geographical Challenges and Hybrid Mode:**

The Delhi Chapter covers an extensive geographic area, spanning across multiple regions. As a result, organizing events in a purely offline mode proves to be highly challenging. To effectively engage our diverse audience across the entire Delhi Section, we are compelled to adopt a hybrid model for our activities. This approach allows us to reach members spread across various locations and ensures greater participation in our initiatives.

### **(ii) Limited Fellowship Representation:**

Despite the vast area covered by the Chapter, which includes four states and four Union Territories, the number of fellows in the Chapter is notably low—currently, we have only four fellows. This limited representation of fellows presents a challenge in terms of leadership and expertise, hindering the growth and impact of the Chapter.

### **(iii) Membership Retention Challenges:**

One of the primary concerns within the Chapter is the retention of existing members. Maintaining membership engagement is an ongoing struggle, and it is crucial for IEEE to provide some form of incentive or support to help retain members across the Chapter. This year, the introduction of GST in membership fees by the Government of India has further exacerbated this issue, creating a significant financial barrier for many existing members. This development has become a major concern for member continuity, and addressing this challenge is essential for the health and sustainability of the Chapter.

## **6. Briefly share the top three ways your region, PES, and IEEE could do to help your chapter**

### **(i) Need for Regular Mentorship and Guidance:**

Ongoing mentorship and encouragement from IEEE PES leaders are crucial for the growth and success of the Chapter. Active involvement from senior figures, such as the IEEE PES President, Past Presidents, Region 10 leaders, and experienced members within the Delhi Section, is essential for providing strategic direction and support. Their insights and guidance will help ensure the Chapter's well-being, foster progress, and inspire members to remain engaged and motivated in all activities.

**(ii) Streamlining the DL Request Process:**

Currently, when the Chapter requests a Distinguished Lecturer (DL), the process involves a lengthy paper trail that can delay or complicate proceedings. It is imperative that IEEE PES and IEEE at large work towards simplifying this process. The Chapter suggests removing the bureaucratic barriers and limitations on the number of DLs that can be organized within a given year. Streamlining the procedure would not only save time but also allow for more frequent and diverse learning opportunities for our members, contributing to a more vibrant and engaged Chapter.

**(iii) GST Inclusion and Financial Relief for Members:**

As previously mentioned, the introduction of an 18% GST on membership fees has posed a significant challenge to many members. The Chapter recommends that this 18% GST be incorporated directly into the membership fee, rather than being an additional charge on top of the existing fees. This change would alleviate the financial burden on members and help make membership more accessible. Addressing this issue is critical for ensuring member retention and maintaining the Chapter's health in the long term. In light of these circumstances, it is vital that IEEE take prompt action to support members during this challenging period.

**7. List specific activities your chapter has held to increase PES YP membership and/or Chapter Excom involvement.**

On October 24th, IEEE PES NSUT had the honour of visiting Choti Si Khushi, an inspiring NGO, where we spent a day celebrating creativity and joy with its students. We hosted a poster-making competition, distributed gift bags and food, and engaged in meaningful conversations with the students about the significance of Diwali and the importance of celebrating it safely. In January 2024, the PES-IAS Joint Chapter played a pivotal role in organizing an insightful symposium during the Delhi Students, Young Professionals, Women in Engineering (WIE), and Life Members (LMAGs) Congress (DSSYWLC) held at Netaji Subhas University of Technology on the 20th and 21st. The event featured various technical sessions covering a wide range of topics such as Power System Operation with High Renewable Integration, the benefits of IEEE PES membership, awards, funding, and scholarship opportunities for undergraduate, postgraduate, and PhD students, as well as the assembly of the world's largest climate clock. In addition, PES Day 2024 was celebrated with events like the AI-based motion control session, a visit to Mahila Ashram, and the IEEE PELS Day celebration. This year, the PES-IAS Joint Chapter also provided vital support to organize various initiatives, including DSSYWLC2024 and the WIE International Leadership Summit (ILS), where Young Professionals (YPs) had the opportunity to interact and collaborate with other members of the chapter. The chapter also hosted a series of technical talks in areas where several YPs are pursuing their PhDs, fostering a deep exchange of knowledge. Beyond technical engagement, we organized numerous social events aimed at supporting underprivileged schoolchildren, as well as industrial tours, with significant participation from YPs and Excom members. These initiatives helped strengthen our commitment to community outreach and professional development, ensuring a year filled with impactful events and collaborations.

**8. List specific activities your chapter has held to increase Women in Power (WIP) membership / WIP Chapter ExCom involvement**

This year, the PES-IAS Joint Chapter played a crucial role in organizing initiatives for Delhi's students, Young Professionals (YPs), Women in Engineering (WIE), and Life Members. Additionally, in a remarkable display of corporate social responsibility, Hitachi Energy India Ltd, through its CSR and WIE programs, extended substantial support to four underprivileged female students pursuing Electrical Engineering within the PES-IAS Chapter. As part of this collaboration, Hitachi Energy India provided scholarships, laptops, and a four-year mentorship program to help these students succeed in their academic and professional journeys. This generous contribution not only empowers the recipients but also aligns with the Chapter's commitment to promoting diversity and fostering the growth of young talent in the engineering field. The partnership exemplifies the impact of corporate responsibility and collective efforts in driving positive change and creating opportunities for those in need.

**9. Demonstrate a chapter membership Growth / Retention program geared to increase the membership of the chapter.**

An **INSIGHTFUL SYMPOSIUM** on PES, PELS, IES, and IAS was organized during the **DSSYWLC 2024**, which provided valuable information to students about the numerous benefits of PES/IAS membership. The event, held at Netaji Subhas University of Technology on January 20th and 21st, 2024, also emphasized the advantages of having a Society Chapter within the student branch. Key points discussed included the availability of funds for activities and the exciting opportunities for students to win prestigious awards. As part of the ongoing effort to foster growth and engagement, a **PES Membership Drive** was conducted at Maharaja Surajmal Institute of Technology, aimed at increasing membership and educating students on the significance of joining IEEE PES. Furthermore, about 30 students from **Delhi Technological University (DTU)** participated in an industrial visit to the **National Load Despatch Centre**, gaining firsthand insights into the operations of the Indian national grid and the electricity market. The **IEEE PES Membership and Retention Drive** was designed not only to recruit new members, particularly freshmen, but also to encourage those with expired memberships to renew. The event highlighted the tangible benefits of joining IEEE PES, while showcasing the chapter's impactful activities and achievements. During the drive at **NSUT**, we introduced the IEEE PES community to attendees, emphasizing its global reach and the multitude of benefits that come with membership. We shared success stories from past events like the **Tech Transducer Hunt** and **PES Quiz**, as well as details about upcoming initiatives such as **PES Week**. In addition, we actively encouraged expired members to renew their subscriptions and effectively pitched the benefits of joining IEEE PES to new students. This focused effort led to a significant surge in membership, growing from 37 to a total of 138 members within the chapter. Additionally, the chapter had the privilege of hosting **Mr. Andy Knight**, President of the **IEEE Industry Applications Society (IAS)**, during his visit to Delhi on **August 7th, 2024**. During this visit, Mr. Knight delivered an inspiring talk titled "Linking Research to Practice" at **NSUT Delhi** and **IIT Delhi**, motivating students to bridge the gap between academic research and practical industry applications. His talk was an invaluable opportunity for students to understand how their academic endeavors can have real-world impacts in the engineering and technology sectors.

## **10. List specific activities your chapter has held to support Senior Member Elevation/Fellow Nomination**

The **Nomination Committee** successfully forwarded the nomination for **Prof. Sukumar Mishra** from **IIT Delhi**, who was honored with the prestigious **Fellow** status in 2024. To ensure that the chapter members were well-informed about such significant opportunities, awareness efforts were undertaken to highlight the importance and benefits of these prestigious recognitions. As a result of these initiatives, a substantial number of chapter members were elevated to the **Senior Member (SM)** grade in 2024. This achievement not only recognizes their individual contributions to the field but also reflects the chapter's dedication to fostering professional growth and excellence within the IEEE community. The elevation of several members to the Senior Member grade serves as a testament to the strong, vibrant, and accomplished network within the chapter, further motivating others to strive for similar accomplishments in the future.

## **11. List any member recognition/award activities your chapter held this year**

The chapter achieved remarkable recognition in 2024, with several of its members honored with prestigious awards. Notable accolades include Prof. Bhim Singh receiving both the IEEE India Council-PGCIL Award and the IEEE PES Hingorani Award. Dr. Rajesh M. Pindoriya was celebrated as the IAS Outstanding Regional Area Chair for Region 10, while Prof. Purna Gaur was honored with the IEEE MGA Diversity and Inclusivity Award, among others.

The Nomination Committee recommended the following IEEE PES Chapter Awards for 2024 across various categories:

- (i). **Outstanding Chapter Engineer Award 2024** (for professionals with more than 15 years of experience) – Prof. Vivek Shrivastava.
- (ii). **Outstanding Chapter Engineer Award 2024** (for professionals with less than 15 years of experience) – Dr. Rajesh M. Pindoriya.
- (iii). **IEEE PES High Performing Student Branch Chapter Program** – Student Chapter TIET Patiala.

Additionally, the chapter secured the following accolades:

- (i) **IEEE PES High Performing Chapter Award 2023.**
- (ii) **IEEE IAS High Performing Chapter Award 2023.**

These achievements highlight the chapter's commitment to excellence, leadership, and innovation within the IEEE community.

## **12. Demonstrate chapter support of student-related activities and development. This includes demonstrated activities with respect to IEEE Student Chapters at the college level and/or with students in grades K-12 (or equivalent).**

Chapter organised following student related activities at college level and for students in grades K-12.

- (i) GUIDE TO A STELLAR PROJECT: ENGINEER YOUR FUTURE
- (ii) Visit to Mahila Ashram - PES DAY 2024
- (iii) IEEE DAY PES QUIZ
- (iv) 'Spark of Change' – "Lighting up lives with knowledge and smiles"

- (v) Campaigning for Cyber Security Awareness program with a colloquium lecture by Sh. B. Shanker Jaiswal, Joint CP, Technology & Project Implementation and Licensing in Delhi Police on October 25, 2024 (Friday) at 4:00 PM in the Auditorium of CSIR-NPL
- (vi) INNOVEDA Baby Conference
- (vii) RES PELAGUS - PEDAL PLAYGROUND - Combining music and circuitry to own your tone

### 13. Demonstrate a chapter-sponsored educational activities.

In 2024, the chapter organized and delivered an array of insightful sessions and events led by esteemed experts from academia and industry. These initiatives included specialized sessions such as *"The Value of Electrification and Power Electronics Systems in Climate-Smart Farming and Off-Road Vehicles"* (January 8, 2024), *"Guide to a Stellar Project: Engineer Your Future"* (February 21, 2024), and a comprehensive *"Battery Management System"* webinar (September 2, 2024). A diverse range of technical lectures and activities were also conducted, covering cutting-edge topics like *Power System Operation with High Renewable Integration*, *The Benefits of Taking IEEE PES Membership*, and *Opportunities for Awards, Funding, and Scholarships for UG, PG, and Ph.D. students*. Additionally, participants were captivated by a session on the *World's Largest Climate Clock Assembly*, among other innovative discussions. The chapter also celebrated significant events, including:

**PES Day 2024:** Highlighting AI-based motion control technologies.

**Visit to Mahila Ashram:** As part of PES Day 2024 community engagement.

**IEEE PELS Day Celebration 2024:** Marking advancements in power electronics.

These programs not only enriched participants' technical knowledge but also fostered collaboration, diversity, and community outreach, reinforcing the chapter's commitment to education, innovation, and societal impact.

### 14. Describe your chapter's support of PES conferences such as GM, T&D, Grid Edge, Joint Technical, ISGT, among others

The Chapter supported financially PIICON 2024, DSSYWLC 2024 and ICPEICES-2024). The chapter also associated in successfully organization of IEEE Region 10 (Asia-Pacific) TENSYP2024 at NSUT.

### 15. Details on other chapter activities not listed here may be provided and may be considered for funding.

In 2024, the chapter orchestrated a series of impactful events, industrial visits, and educational initiatives, furthering its mission of fostering learning, innovation, and community engagement. **Key Events and Initiatives:**

- **Industrial Visit to National Load Despatch Centre** (March 27, 2024): Provided participants with hands-on insights into grid management and real-time power system operations.
- **INNOVEDA Baby Conference** (October 22, 2024): Showcased emerging research and innovative ideas, offering a platform for young professionals and researchers to present their work.
- **Workshop on "The Art and Science of Patent Drafting: A Guide to Securing Intellectual Property Rights"** (December 23, 2024): Delivered valuable guidance on protecting innovations and navigating the patent process.

### **Community Engagement:**

On **October 24, 2024**, IEEE PES NSUT had the privilege of visiting *Choti Si Khushi*, an inspiring NGO, to bring joy and learning to its students. The day was filled with creativity and celebration, featuring:

- **Poster-Making Competition:** Encouraging artistic expression and creativity.
- **Gift Distribution and Festive Cheer:** Sharing gift bags, food, and engaging in meaningful interactions.
- **Diwali Awareness Session:** Highlighting the essence of Diwali and promoting safe and mindful celebrations.

### **Support for IEEE Initiatives:**

The **PES-IAS Joint Chapter** played a pivotal role in organizing events for **Delhi Student Young Professionals, Women in Engineering (WIE), and Life Members**, promoting inclusivity and professional development within the IEEE community.

### **Thomas Alva Edison Memorial Lecture:**

The 28th lecture in this prestigious series was delivered by **Dr. Rajesh Kumar** (SMIEEE, Fellow [IET(UK), IE(I), IETE], LMCSI, LMISTE), an **IEEE IAS Distinguished Lecturer** and Professor at the **University of Johannesburg & Malaviya National Institute of Technology (MNIT) Jaipur**, on **November 12, 2024**.

- **Lecture Title:** *“From Nature to Engineering Optimization: Exploring the Power of Algorithms Inspired by Natural Systems.”*
- **Audience Impact:** The session attracted over **100 participants**, receiving highly positive feedback for its insightful and inspiring content.

### **Distinguished Lecture at Kurukshetra University:**

The **Department of Electrical Engineering at University Institute of Engineering and Technology, Kurukshetra University**, hosted an **IEEE IAS Distinguished Lecture** by **Dr. Dinesh Kumar**, Lead Power Electronics Specialist at **Danfoss Drives A/S, Denmark**, further enriching academic-industry collaboration.

### **IEEE 11th Power India International Conference:**

The conference, held from **December 10-12, 2024** at **MNIT Jaipur**, was a grand success, featuring:

- **13 Keynote Sessions and 4 Tutorials**, providing deep dives into advanced topics.
- **Technical Paper Presentations:** Conducted across **5 parallel sessions**, with a total of **416 submissions, 223 acceptances, and 193 final presentations**.
- **IEEE PELS WIE Panel Discussion:** Focused on *“The Role of the Power Sector in the Transition to a Net-Zero Future”*, emphasizing sustainability and innovation.

Through these diverse and dynamic activities, the chapter demonstrated its commitment to technical excellence, community welfare, and professional growth, making 2024 a year of significant achievements and impactful contributions.

## **16. Does your chapter have a DEI Ambassador?**

No

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