IEEE Power and Energy Society
Entity Annual Report

2025

Entity: Intelligent Grid and Emerging Technologies Coordinating Committee (iGETCC)
Website: https://cmte.ieee.org/iget/
Chair: Theo Laughner, Lifescale Analytics
Vice-Chair: OPEN
Secretary: Jovanio Santos, Thymos Energia
TCPC: Kaveri Mahapatra, Pacific Northwest National Laboratory
Standards Coordinator: Alan Washburn, Burns & McDonald
Immediate Past Chair: Jim Follum, Pacific Northwest National Laboratory

1. **Significant Accomplishments:**
   Our TPCP has been very busy this year helping get reviewers for papers at a variety of the conferences being hosted by IEEE. The PES GM had 67 papers submitted of which 43 were approved. The 2025 Grid Edge conference had 10 papers submitted.

   IGET continues to serve the community by hosting webinars are timely and engaging topics. In February, there was a webinar on high power grounding. This webinar was added to the PES Resource Center and is available for continuing education credit.

   Last year, we started a Hot Topics thread on our website so that interested people can see where all the activities around specific hot topics (e.g. Electric Vehicles, Digital Twin) are being performed within PES. We have continued to update the Hot Topics.

   Finally, we were very engaged in putting together the inaugural Point On Wave Applications Conference. This was not an IEEE Sponsored event, but many of our members were engaged in providing papers and leadership for this fledgling conference.

2. **Benefits to Industry and PES Members from the Committee Work:**
   The webinars and conferences hosted by IGET increased awareness of emerging technologies among PES members participating in relevant committees. This awareness is crucial to ensuring that all aspects of these technologies, which tend to span the scopes of multiple committees, are considered. The webinars also foster dialog among committee members that otherwise may not have the chance to interact.

3. **Benefits to Volunteer Participants from the Committee Work:**
   The presenters of IGET-sponsored webinars have benefited from visibility among PES committees that they are otherwise uninvolved with. IGET's members have benefited from their exposure to a broader set of technologies and an expanded network that comes from organizing presentations. The high-power grounding webinar, for example, had nearly 70 attendees. This is important because grounding has not really changed in the last 100 years. However, there is emerging technology which improves grounding while reducing theft potential.

4. **Recognition of Outstanding Performance:**

The role of the TCPC has been very critical with all the papers being submitted to iGET. Consequently, iGET would like to recognize Kaveri Mahapatra for her support and coordination of paper reviewers.

5. **Coordination with Other Entities (PES Committees, CIGRE, standards, etc.):**

The inaugural Point On Wave Applications conference was held in Chattanooga, Tennessee, USA in October 2025. This conference was very successful with nearly 80 attendees over the two-day event.

We continue to coordinate with several PES technical committees including: AMPS, EICC, Marine Systems, PSCCC, PSOPE, PSRC, RSICC, T&D, and the recently formed AI Coordinating Committee.

We continue working with the Smart Grid Community as they transition into the Smart Cities TC 2.0.

6. **Coordination and Involvement with Young Professionals:**

We are actively seeking new YP members from all regions. We have been involved in the IEEE Mentoring Program that took place during the PES GM.

7. **New Technologies of Interest to the Committee:**

Synchronized Waveforms: Over the past few years, instrument manufacturers have made access to synchronized voltage and current waveform measurements possible. This emerging technology has the potential to enable a wide variety of applications, particularly those that support integration of inverter-based resources.

Artificial Intelligence Resources for Power Systems: Artificial intelligence is a technique where computer systems make decisions like the way a human would given the same input. As more data is acquired on the grid, the ability to automate the analysis of the data is paramount. A new AI coordinating committee has been formed by the PES Tech Council.

Port Electrical Distribution Networks: The global push for climate neutrality through sustainable decarbonization in the maritime sector includes the large-scale electrification of ports to support shore-to-ship power connections (cold ironing). Implementing these systems requires advanced technical solutions to reliably deliver high power from the main grid to vessels. In this context, port distribution network configurations and their associated equipment demand careful consideration throughout design, implementation, operation, and maintenance. Port Electrical Distribution Networks - IEEE Power & Energy Society

8. **Global Involvement**

We have been actively participating in the Satellite Committee Meetings which include reports from the iGET primarily in China.

The officers from the Satellite Committee are:
Chair: Dong Yue

Vice Chair: Wehnhan Zhang
Secretary: Tengfei Zhang

The China STC meets annually during the New Energy and energy Storage System Control Summit Forum (NEESSC). The next meeting will be held August 14-16 in Hohhot, China.

9. **Problems and Concerns:**
We continue to struggle to get participation. Some of the officers have been unable to fulfill there duties. Consequently, we are looking for new officers.

We would welcome the opportunity to bring more value to the IEEE Power and Energy Society.

10. **Significant Plans for the Next Period:**
We have added an additional in person meeting at the IEEE PES Joint Technical Committee Meeting in early 2026. We are also planning additional webinars. Finally, we are putting together a list of what each committee views as an emerging technology. We plan to publish this report annually.

Submitted by: Theo Laughner, iGET CC Chair
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