

IEEE Power and Energy Society Entity Annual Report

2023

Entity: Intelligent Grid and Emerging Technologies Coordinating Committee (IGET)
Website:
Chair: Theo Laughner, Lifescale Analytics
Vice Chair: Daniel Molzahn, Georgia Institute of Technology
Secretary: Jovanio Santos, Thymos Energia
TCPC: Kaveri Mahapatra, Pacific Northwest National Laboratory
Standards Coordinator: Alan Washburn, Burns & McDonnell
Past Chair: Jim Follum, Pacific Northwest National Laboratory
Immediate Past Chair:

1. Significant Accomplishments:

IGET's first accomplishment of the year was getting the Organization & Procedures Manual approved by the Tech Council.

We created a web site (<https://cmte.ieee.org/iget/>) for better reachability and to advertise our efforts with regards to webinars.

We filled all of our empty officer positions. Discussions with other committee officers took place at the fall strategic planning meeting.

We held the following webinars in 2023 –

- Flash Talks on Datasets, March 2023,
<https://ieeemeetings.webex.com/ieeemeetings/ldr.php?RCID=d79ab06716ccbde6d73eab62319ed52f>
- Aggregators in Energy Markets: New Business Models to Address Customers and Systems Needs, January 2023,
<https://ieeemeetings.webex.com/ieeemeetings/ldr.php?RCID=6f1a594888fd02ac15b848820cc56be7>

2. Benefits to Industry and PES Members from the Committee Work:

The webinars 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. Their contributions to the emerging technology white paper will also provide a publication for their resume and greater visibility. IGET's officers have benefited from the exposure to a broader set of technologies and an expanded network that comes from organizing presentations.

4. Recognition of Outstanding Performance:

Jim Follum, immediate past chair has stayed engaged in carrying out the iGET charter. We appreciate his efforts for getting iGET restarted!

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

We continue to coordinate with PES PSCCC, IEEE PES SCC-22.

IGET coordinated with the US Department of Energy's North American Synchrophasor Initiative (NASPI) working group to co-host a webinar in February 2023.

Liaisons were assigned for PSCC and Switchgear's Technology & Innovation Subcommittee.

6. New Technologies of Interest to the Committee:

Climate change: Over the past few years, climate change has served as a driver to change energy policy in several countries. Monitoring how policy affects outcomes not only with regard to climate change, but to reliability and other power quality related issues is of interest.

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. There are several resources available to help the industry develop AI capabilities from disturbance libraries to publicly available AI platforms.

Cybersecurity: As more decisions are made based on Artificial Intelligence there is growing concern about automation and ensuring these assets have not been compromised.

1. Global Involvement & YP Involvement

PES is looking to increase involvement with members from Regions 8, 9 and 10 (Africa, Europe, Middle East, Latin America, Asia and Pacific). Please provide the following information.

We are actively working with Dan Sabin to coordinate with the Asia/Pacific iGET satellite committee.

Please also provide information on the number of young professionals that are involved in your committee.

Total Number of committee members	Number of Young Professionals (under 35 years of age) – Including committee & subcommittee	Officers from regions 8,9 and 10	Subcommittee officers from regions 8, 9 and 10	Subcommittee members from regions 8,9, and 10
36	1	1	NA (no subcommittees)	NA (no subcommittees)

2. Problems and Concerns:

We are redoubling our efforts to get active participation from all of the Technical Committees with PES. We are considering an additional in person meeting at the IEEE PES Joint Technical Committee Meeting in early 2025.

3. Significant Plans for the Next Period:

We are actively participating in the PES Roadmap Task Force. Webinars are scheduled to continue on a quarterly basis. The following webinars are scheduled for 2024: Climate Change and Market Design, Cyber Informed Engineering, and Artificial Intelligence. In addition, we plan to begin hosting quarterly liaison meetings after reaching out to each Technical Committee to identify a more complete set of liaisons.

Submitted by: Theo Laughner, Chair

Date: Feb 22, 2024