

# IEEE Power and Energy Society Entity Annual Report 2020

**Entity:** Power and Energy Education Committee (PEEC)  
**Website:** <https://site.ieee.org/pes-peec/>  
**Chair:** Anurag Srivastava  
**Vice-Chair:** Sukumar Kamalasadana  
**Secretary:** Aaron St. Leger  
**Immediate Past Chair:** Siddharth Suryanarayanan

## 1. Significant Accomplishments:

Many of PEEC activities are conducted in person, in conjunction with, conferences (IEEE PES General Meeting (GM), IEEE PES Transmission and Distribution Conference and Exhibition (T&D), and the North American Power Symposium (NAPS)). All three were original scheduled for 2020. However, due to COVID pandemic, T&D was cancelled, NAPS was pushed to the spring of 2021, and the GM was transitioned to a virtual conference. However, despite these disruptions, nearly all traditional PEEC activities for the GM and NAPS were transitioned to virtual format and delayed in the case of NAPS. This is the most significant accomplishment for PEEC in 2020. To maintain contributions and efforts in the society despite the COVID pandemic. Some specific notable activities:

- a. Seven panel sessions were conducted and well attended during the virtual 2020 GM

Tuesday, August 4, 2020 1:00 PM - 3:00 PM	Panel Session	<a href="#">Disruptive Technologies: Multi-Disciplinary Careers for Modern Grids</a>	On Demand
Wednesday, August 5, 2020 8:00 AM - 12:00 PM	Panel Session	<a href="#">Panel Session Title Research and Educational Experiences of NSF CAREER Awardees in Power Systems</a>	On Demand
Wednesday, August 5, 2020 1:00 PM - 3:00 PM	Panel Session	<a href="#">Novel Interdisciplinary Approaches for Power and Energy Research and Education</a>	On Demand
Wednesday, August 5, 2020 3:00 PM - 5:00 PM	Panel Session	<a href="#">Research and Education in Distribution Management System with DERs for Resilient Grid</a>	On Demand
Thursday, August 6, 2020 8:00 AM - 10:00 AM	Panel Session	<a href="#">Education and Research of Data Science for Power Systems</a>	On Demand
Thursday, August 6, 2020 10:00 AM - 12:00 PM	Combo Session	<a href="#">AI and VR applications for Power and Energy Systems</a>	
Thursday, August 6, 2020 10:00 AM - 12:00 PM	Panel Session	<a href="#">AI and VR applications for Power and Energy Systems Research and Education</a>	On Demand

- b. Twelve tutorials conducted during the virtual 2020 GM: [Tutorials - 2020 IEEE Power & Energy Society General Meeting \(pes-gm.org\)](#)
- c. All PEEC Subcommittee meetings, the PEEC AdCom meeting, and the PEEC main committee meeting were conducted. They were transitioned to a virtual environment instead of in person.
- d. Two PEEC members, Valentina Cecchi and Aaron St. Leger, participated in the 2020 Global Student Congress. Specifically, they were invited speakers to engage with students and discuss

Power and Energy Education Activities within PES and student opportunities within PES.

<https://sc.ieee-pes.org/>

- e. The student program for the GM (poster contest and Student/Industry/Faculty Luncheon and panel) were successfully transitioned to a virtual environment. The student poster session was conducted live from 7/27 to 8/3 with 85 students and 140 judges. Winners were announced at the live SIF panel on 8/5. The student housing support program was cancelled due to the lack of need.
- f. Task Force on “Innovative Teaching Methods for Modern Power and Energy Systems” is working on a PES Technical report, wrote one paper, conducted two panel sessions, and a questionnaire on assessment and teaching methods.
- g. The University Education Subcommittee began work on developing an online portal for courses and resources than can provide educational material to the PES community.

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

PEEC provides a variety of benefits:

- Creates and improves relationships between all segments of electric power and energy industry and all elements of the engineering education community.
- Formulates recommended PES policy relative to all matters involving engineering and technology curricula accreditation.
- Serves as the primary source of PES recommendees for service in various activities of ABET.
- Actively engages PES student members and provides a variety of student activities at the PES General Meeting, North American Power Symposium, and PES Transmission and Distribution Conference and Exposition.
- PEEC Survey conducted every two years.
- PES High School Initiative: sponsorship and mentorship of high school students to participate in a Power & Energy design project/competition. They attend the T&D conference and present their results. A successful pilot in 2018, cancelled in 2020 due to COVID pandemic.

## **3. Benefits to Volunteer Participants from the Committee Work:**

PEEC provides a variety of benefits:

- Venue to stay involved in, and up to date on advancements, in Power and Energy Education.
- Volunteer and leadership opportunities.
- Professional networking and professional development through PEEC activities.

## **4. Recognition of Outstanding Performance:**

- 2020 IEEE PES Lifetime Achievement Award: Pet Sauer
- 2020 IEEE PES Outstanding Power Engineering Educator Award, Marija Ilić



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- 2020 IEEE PES Outstanding Young Engineer Award, Zhaoyu Wang
- 2020 IEEE PES Wanda Reder Pioneer in Power Award, Yilu Liu
- New IEEE Fellows: Sukumar Brahma
- Two outgoing PEEC Subcommittee Chairs were recognized for their long-term leadership of subcommittees: Ramtin Hadidi (Career Promotion & Workforce Development) and Sairaj Dhople (University Education Activities)

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

The University Education Subcommittee began work on developing an online portal for courses and resources than can provide educational material to the PES community.

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

PEEC is interested in:

- Technology that supports, or drives innovation in, pedagogy
- Innovations in laboratory equipment and structured experimentation for power engineering education

**7. Global Involvement**

PES is looking to increase involvement with members from Regions 8, 9 and 10 (Africa, Europe, Middle East, Latin America, Asia and Pacific). PEEC will work to obtain this data and report in the near future.

Total Number of committee members 108	Officers from regions 8,9 and 10	Subcommittee officers from regions 8, 9 and 10	Subcommittee members from regions 8,9, and 10
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**8. Problems and Concerns:**

PEEC has a concern regarding coordination between PEEC and IEEE PES Governing Board on Power and Energy Education activities. While the recent PES VPs of Education have been actively involved with PEEC and very helpful, at times PEEC has not been proactive enough in engaging with the VP of Education and becoming involved in PES Governing Board activities pertaining to Power and Energy Education. PEEC would like to improve in this regard. Specifically, PEEC would like to be involved when Power & Energy Education Activities are driven at the Governing Board level and have some input on selection of PES VP of Education. While it is understood that PEEC does not necessarily have any bearing on PES VP of Education selection, and the recent VPs of Education have been fantastic in their volunteer duties, some coordination here could help improve the synergy between PEEC and the PES Governing Board.

**9. Significant Plans for the Next Period:**

PEEC has a few focus areas moving forward:

- Improve PEEC involvement and coordination with VP Education and PES Governing Board



-Course links and educational materials: <https://sites.google.com/view/power-course-repository/home>

-Better collaboration and increased PEEC participation from industry and Regions 8, 9 and 10.

**Prepared and Submitted by:**

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**Anurag Srivastava, PEEC Chair**

**Date: 7/19/2021**