

## IEEE Power and Energy Society Entity Annual Report

2022

**Entity: Power System Instrumentation and Measurements Committee**

**Website:** [www.psimcommittee.org](http://www.psimcommittee.org)

**Chair: Jeffrey Britton**

**Vice-Chair: David Wallace**

**Secretary: Jeffrey Hildreth**

**Immediate Past Chair: Ernst Hanique**

### 1. Significant Accomplishments:

- Completion and submission to IEEE SA of the revision of IEEE P1122 by the High Voltage Testing Techniques Subcommittee. The first round of balloting was completed in 2022 with 95% approval. The few comments that were submitted are now in comment resolution.
- Completion and submission to IEEE SA of the revision for IEEE P120 by the Electricity Metering Subcommittee. The finished document is now ready for the first round ballot to be opened.
- Final review and approval of IEEE P2960 for Entity Ballot. P2960 was successfully balloted and approved and should soon be available for purchase through IEEE SA.
- Completion of PSIM Sensors Subcommittee Technical Report TR-102 on accuracy of smart grid sensors systems. This report is now available on the PES Resource Center
- Organization and presentation of 2 successful Panel Sessions at PESGM 2022.
- Ongoing review of numerous entity based PAR submissions through the PES EPM Committee.

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

- PSIM Standards, Guides, Technical Reports and Panel Sessions help keep industry informed on various topics related to high-voltage tests and measurements, electricity metering and voltage and current sensor systems.
- PSIM focuses heavily on specifying the performance requirements of systems designed to measure electrical quantities, identifying and mitigating potential sources of error in measurements, and recommending procedures for quantifying the overall measurement performance based on internationally recognized method of uncertainty evaluation.
- The Standards and Guides produced and maintained by the PSIM HVTT Subcommittee serve as the definitive horizontal test and measurement Standards for all IEEE PES Technical Committees relating to specific power system apparatus (Transformers, Insulated Conductors, Switchgear, Machinery and Surge Protective Devices).

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

- PSIM Committee volunteers benefit primarily through the sharing of knowledge and experience that comes from working together to develop the various publications and presentations produced by its various Subcommittees, Working Groups and Task Forces.

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

- The PSIM Committee would like to recognize its immediate Past Chair, Ernst Hanique ([Ernst.Hanique@kema.com](mailto:Ernst.Hanique@kema.com)) for his long service to the PSIM Committee, and especially his career long contributions to the HVTT Subcommittee. Ernst's experience and dedication to his profession, to IEEE and to PSIM have been exceptional, especially in consideration of the difficulties presented to his Committee chairmanship resulting from the COVID pandemic. In addition, during his term as PSIM Chair, Ernst fought and overcame some serious personal health issues, yet was able to complete his term of office for the Committee.
- PSIM would also like to recognize the efforts of the Working Group for IEEE P120, under the chairmanship of Dr. Harold Kirkham ([harold.kirkham@gmail.com](mailto:harold.kirkham@gmail.com)), with secretary Dani Strickland ([d.strickland@lboro.ac.uk](mailto:d.strickland@lboro.ac.uk)). IEEE 120 is a large document and was in need of a substantial revision. The Working Group met virtually on a monthly basis for over one year in order to complete the revision, which has not been released to IEEE SA for ballot.

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

- IEC Technical Committee 42 (High-Voltage and High-Current Test Techniques)
- IEEE PES Transformers Committee
- IEEE PES Transmission and Distribution Committee
- IEEE PES Switchgear Committee
- IEEE PES Insulated Conductors Committee
- IEEE PES Power System Relaying and Control Committee
- IEEE PES Surge Protective Devices Committee
- IEEE PES Machinery Committee
- IEEE Dielectrics and Electrical Insulation Society (DEIS)

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

- UHV AC Transmission Systems, related equipment, tests and measurement systems
- UHV DC Transmission Systems ,related equipment, tests and measurement systems
- Non-conventional (non-instrument transformer based) Smart Grid Sensor Systems
- Measurement of fast and very fast transient voltages in the Power System
- Measurement of harmonics in the Power System
- Measurement of supraharmonics (2 kHz to 150 kHz) in the Power System
- DC Energy Metering

## 7. 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.

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
25	4 (approx.)	1	1	9

## 8. Problems and Concerns:

- PSIM has had some difficulty with the transition to hybrid meetings, such as the JTCM, where participants are required to pay a registration fee to participate virtually. There are 2 main problems:
  - 1) Some of our members, including some in leadership positions (WG chairs) who cannot attend in person have refused to participate in meetings requiring a virtual registration fee.
  - 2) Using the JTCM as an example, the enforcement of restrictive policies regarding virtual participation presents a huge logistical burden to the Technical Committee volunteers. For the past 2 years, Technical Committees have been told that they must enforce the registration policies by ensuring that only registered participants receive the web meeting links. With no organized web meeting platform (or service provider) offered by PES to handle the administrative aspects of this policy, the process is chaotic and very time consuming for the Technical Committee volunteers trying to comply with the policy

PSIM's position is that if PES is going to restrict virtual participation in Committee meetings by charging participants a registration fee, then it should provide a better system for supporting the Technical Committees with the logistical and administrative burdens that result. This could, for example, be handled by a virtual meeting service provider who could provide the logistical support in the background.

## 9. Significant Plans for the Next Period:

- Completion of revision for IEEE P1459
- Completion of IEEE P2985
- Revision of PES PSIM O&P Manual
- Revision of IEEE SA P&P Manuals as required
- Organization and presentation of a Panel Session on Qualification of Smart Grid Sensor System performance at PESGM 2023

**Submitted by: Jeffrey A. Britton**

**Date: 1/31/2023**