

## IEEE Power and Energy Society AMPS Annual Report

2019

**Entity: Committee on Analytic Methods for Power Systems**

**Website: <http://sites.ieee.org/amps/>**

**Chair: Kevin Schneider**

**Vice-Chair: Kwok Cheung**

**Secretary: Stephen S. Miller**

**Immediate Past Chair: Alexander W. Schneider, Jr.**

### **1. Significant Accomplishments:**

This committee is composed of six subcommittees:

- Big Data Analytics Subcommittee (BDAS)
- Computing and Analytic Methods Subcommittee (CAMS)
- Distribution System Analysis Subcommittee (DSAS)
- Intelligent Systems Subcommittee (ISS)
- Reliability, Risk and Probability Applications Subcommittee (RRPA)
- Transient Analysis and Simulation Subcommittee (TASS)

The AMPS Committee and its subcommittees met at the IEEE PES General Meeting (GM) in Portland, Oregon in August, 2018, and held an administrative committee phone call on December 14<sup>th</sup>, 2018. The next meeting will be at the IEEE PES General Meeting in Atlanta, Georgia in August, 2019. The secretary and vice chair rotated into the vice chair and chair of the AMPS committee on December 31, 2018, and the positions of secretary and TCPC were filled by appointment. The Policies and Procedures of the Committee, a fundamental governing document, was updated under the guidance of the IEEE Standards Association and approved in October.

In 2018 AMPS reviewed over 300 technical papers for the GM and accepted 134, plus 44 transaction papers. AMPS had the highest or second highest number of papers among technical committees for a number of years, and AMPS has received over 300 papers for the 2019 GM for which reviews are in process. Because there is little “common ground” among the subcommittees of this committee, paper review has been delegated to the subcommittees, and generally the subcommittee vice chair serves as a “vice-TCPC” in assigning papers for review and determining the papers to be accepted.

The Technical Council of PES has established paper quotas which impact committees with higher numbers of papers, namely the greater of 40 papers or one half of those reviewed. Each subcommittee has been requested to accept no more than half of the papers sent to them for review, although the committee TCPC retains overall control of the review process.

With few exceptions, accepted papers are presented at the GM in one of three formats: in a poster session; in a paper forum, or at a panel session. At the 2018 GM, the AMPS Committee sponsored 30 panel sessions, a few of which were co-sponsored with other Technical Committees. For the 2019 GM, 30 panel sessions have been proposed, but it is expected that some will be dropped and others combined.

The Committee is the sponsor of record for three IEEE Standards. A Working Group was formed in 2016 to review IEEE Standard 762, primarily to incorporate performance indices relevant to Variable Energy Resources, also known as renewables. A second Working Group was formed in 2017 to review IEEE Standard 859. This review was completed in 2018 and submitted for ballot.

Historically, most members of the Committee came to membership as ex officio members representing one or another subcommittee within its jurisdiction, and have accepted the responsibility of ongoing service after their ex officio terms were completed.

As with other Technical Committees, the AMPS Committee maintains an Awards Working Group and names a Fellows Coordinator to facilitate recognition of outstanding achievement by those working within the scopes of its constituent subcommittees.

The Committee has begun to hold quarterly meetings of Committee officers by Skype. Because of limited support for travel, holding a formal meeting at the Joint Technical Committee Meeting in January was found to be impractical.

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

The work of the AMPS Committee facilitates publication and presentation of technical work within the scopes of the subcommittees within its jurisdiction, by forming a structure for scheduling paper and panel sessions and reviewing papers. Where a sufficient body of “best practice” exists, the Committee organizes a Working Group to propose a new IEEE Standard or revise an existing Standard.

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

The subcommittees under AMPS provide a network of engineers with common technical interests. Participation in paper reviews exposes members to the latest developments in the area and insight into the requirements for successful publication.

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

The 2018 IEEE PES Roy Billinton Power System Reliability Award was presented to Robert Ringlee.

The Committee notes the elevation of AMPS members Joydeep Mitra and Milorad Pasic to the grade of Fellow of the IEEE in the class of 2019.

The Committee plans to systematically nominate retiring Committee and Subcommittee officers for appropriate recognition where appropriate.

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

The Committee works with IEEE-SA to revise and ballot its three standards when due. A handful of members belong to CIGRE but there is little coordinated interaction.



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Past coordination with other technical committees, notably Power System Planning and Operations, needs to be restructured following the technical committee realignment.

Although there is no formal link between the biennial PMAPS conference and the RRPA subcommittee of AMPS, their interests are similar and there is considerable overlap of membership. RRPA chairman Dr. Milorad Papic was general chairman of the 2018 PMAPS in Boise, Idaho.

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

Because AMPS is primarily a “methods” committee, there is significant interest in coordinating with other committees which are leading new technologies. This includes close integrate with the Big Data subcommittee under AMPS, as well as resiliency and machine learning activities across multiple committees.

#### **7. Significant Plans for the Next Period:**

- 1) Review and revise membership role.
- 2) Setup Signup123 structure for the AMPS committee.
- 3) Work with subcommittees, working groups, and task forces to populate membership information in Signup123.

**Submitted by: Kevin Schneider, Chair**

**Date: February 4, 2019**

**Kwok Cheung , Vice Chair**

**Steven S. Miller, Secretary**

**Alexander W. Schneider, Jr. , Past Chair**