

AMPS Committee Annual Report

2017

Entity: IEEE PES Technical Committee on Analytic Methods for Power Systems

Chair: Alexander W. Schneider, Jr.

Vice-Chair: Kevin Schneider

Secretary: Kwok Cheung

Past Chair: Joydeep Mitra

Technical Committee Paper Coordinator: Stephen S. Miller

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

The AMPS Committee and its subcommittees met at the IEEE PES General Meeting in Chicago, Illinois in July, 2017, and will next meet at the IEEE PES General Meeting in Portland, Oregon in August, 2018. The secretary and vice chair will rotate into the vice chair and chair of the AMPS committee on December 31, 2017, and the positions of secretary and TCPC will be filled by appointment at the Portland meeting. The governing documents of PSACE continue to be used for AMPS with appropriate changes of name.

In 2017 AMPS reviewed 260 technical papers for the GM and accepted 138. AMPS and its predecessor, PSACE, have had the highest or second highest number of papers among technical committees for a number of years, and AMPS has received over 320 papers for the 2018 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 2017 Boston GM, the AMPS Committee sponsored 22 panel sessions, a few of which were co-sponsored with other Technical Committees. For the 2018 Portland GM, 31 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.

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.

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 2017 IEEE PES Roy Billinton Power System Reliability Award was presented to Alton DeWitt (Dee) Patton.

The Committee notes the elevation of AMPS member Alexander W. Schneider to the grade of Fellow of the IEEE in the class of 2018.

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.

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 PMAAPS conference and the RRPA subcommittee of AMPS, their interests are similar and there is considerable overlap of membership. RRPA chairman Dr. Milorad Papic is general chairman of the 2018 PMAAPS in Boise, Idaho.

6. New Technologies of Interest to the Committee:

A new subcommittee on “Big Data” has begun operations. It is apparent that some technical problems require such large files or arrays of data that data management becomes as critical to success as the underlying technical problem. Conversely, techniques developed to solve one problem may find application to others.

7. Significant Plans for the Next Period:

The AMPS Committee plans to do the following.

- a) Review its membership. Members who have become inactive need to be elevated to honorary status where appropriate, or asked to resume their activity or resign. In 2014 the Committee identified 25 members satisfying the O&P criteria for voting privileges, but was carrying 66 on its rolls.
- b) Convene quarterly meetings of Committee officers by Skype or otherwise at least quarterly, and consider holding a formal meeting at the Joint Technical Committee Meeting in January.
- c) Identify and promote regional conferences where the authors of rejected papers can be encouraged to submit their work. While the IEEE should not provide a forum for poor papers, the quota system sometimes forces the Committee to reject worthy ones. Committee members need to participate in paper reviews for such conferences even if they do not plan to attend.
- d) Make more coordinated efforts to recognize members’ contributions. Despite the level of publication activity within the subcommittees comprising AMPS, few members are nominated for awards and other recognition.

8. Global Involvement:

There are many ways by which a member may be identified by region: by place of birth, by the institutions where trained, by current institutional affiliation, by citizenship or even place of residence. The Committee has chosen to identify its members by their self-reported work addresses where known, by the location of the institution’s headquarters or home office if that is known, and lastly by email address. Regions 8, 9 and 10 serve members outside the United States and Canada.

The 2016 roster from which the following table is drawn has not been updated to remove persons affiliated exclusively through the System Economics Subcommittee, nor to add any new members from Big Data and Transient Analysis & Simulation subcommittees. A new roster including these is likely to show a higher percentage from Regions 8, 9 and 10.

	Committee Members	Committee Officers	Subcommittee officers ¹	Subcommittee members
Total	56 ²	3	18	

¹ Assumes that leadership of each subcommittee consists of a chair, a vice chair, and either a secretary or a past chair.

² 57 individuals attended one or more meetings in 2012-14; later attendance not yet posted. One IEEE staff member was excluded.

Regions 8, 9 and 10	15	0	5 ³	20% ⁴
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Submitted by: Alexander W. Schneider, Jr, Chair
Kevin Schneider, Vice Chair
Kwok Cheung, Secretary
Joydeep Mitra, Past Chair

Date: January 29, 2018

³ Chris Dent, RRPAs vice chair; Zita Vale, Sukumar Mishra, Alexandre P. Alves Da Silva, ISS officers; Juan Martinez-Velasco, General Systems Subcommittee Chair.

⁴ Estimated; a survey is in process.