

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

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 was reorganized and renamed in 2016. It assumed four of the five subcommittees of the Power Systems Analysis, Computing and Economics (PSACE) committee, as follows.

- Computing and Analytic Methods Subcommittee (CAMS)
- Distribution System Analysis Subcommittee (DSAS)
- Intelligent Systems Subcommittee (ISS)
- Reliability, Risk and Probability Applications Subcommittee (RRPA)

In addition, the former General Systems Subcommittee of the Transmission and Distribution Committee was renamed the Transient Analysis and Simulation Subcommittee and moved to the AMPS Committee, while the System Economics Subcommittee (SES) was moved to the newly formed Technical Committee on Power System Operation, Planning and Economics. Lastly, a new Big Data Analytics Subcommittee (BDAS) was formed.

The former PSACE Committee and its subcommittees last met at the IEEE PES General Meeting in Boston, Massachusetts in July, 2016, and the AMPS Committee and its subcommittees will next meet at the IEEE PES General Meeting in Chicago, Illinois in July, 2017. The former PSACE secretary and vice chair rotated into the vice chair and chair of the AMPS committee, and the positions of secretary and TCPC were filled by appointment at the Boston meeting. The governing documents of PSACE will be used for AMPS with appropriate changes of name.

In 2016 PSACE reviewed 260 technical papers for the GM and accepted 138. PSACE has had the highest or second highest number of papers among technical committees for a number of years, and AMPS has received over 310 papers for the 2017 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 2016 Boston GM, the PSACE Committee sponsored 22 panel sessions, a few of which were co-sponsored with other Technical Committees.

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.

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 2016 IEEE PES Roy Billinton Power System Reliability Award was presented to Robert Ringlee.

The Committee is pleased to note the elevation of AMPS member Zhenyu (Henry) Huang and System Economics Subcommittee member Fangxing (Fran) Li to the grade of Fellow of the IEEE in the class of 2017.

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 PMAPS conference and the RRPA subcommittee of AMPS, their interests are similar and there is considerable overlap of membership. The 2016 PMAPS conference in 2016 was a great success and the Committee hopes to contribute to the success of the 2018 PMAPS 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. Problems and Concerns:

- a) Reviewers are asked to identify papers exhibiting plagiarism, whether of prior work by the same author(s) or of other authors. However they have few tools to do so, and could face repercussions if they were deemed to have made a false accusation.
- b) PSACE found it difficult to recruit a Fellows Coordinator satisfying Fellows Committee conflict of interest rules to assist in ranking candidates. A committee member accepting this role must commit not to serve as a nominator or reference for any candidate during his or her term of office. Although this rule safeguards the integrity of the nomination process, it imposes a significant sacrifice for those who wish to encourage colleagues within their professional or regional area.

8. 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.

9. 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 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.

	Committee Members	Committee Officers	Subcommittee officers ¹	Subcommittee members
Total	56 ²	3	18	
Regions 8, 9 and 10	15	0	5 ³	20% ⁴

As the Technical Council has identified Global Involvement as a goal, AMPS will attempt to collect more rigorous statistics for the 2017 report.

Submitted by: Alexander W. Schneider, Jr, Chair
Kevin Schneider, Vice Chair
Kwok Cheung, Secretary
Joydeep Mitra, Past Chair

Date: February 16, 2017

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.

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.