

IEEE Power and Energy Society AMPS Annual Report

2020

Entity: Committee on Analytic Methods for Power Systems (AMPS)

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

Chair: Kevin P. Schneider

Vice-Chair: Kwok W. Cheung

Secretary: Stephen S. Miller

Past Chair: Alexander W. Schneider, Jr.

TCPC: Yanfeng Gong

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 virtually just following the IEEE PES General Meeting (GM) in Atlanta, Georgia August 20th, 2020, and also on December 18th. Officer rotations occurred at the end of 2020. The table below shows the 2020 officer and 2021 officers.

Position	2020	2021
Chair	Kevin Schneider	Kwok Cheung
Vice-Chair	Kwok Cheung	Stephen Miller
Secretary	Stephen Miller	Yanfeng Gong
TCPC	Yanfeng Gong	Zhenyu (Henry) Huang
Past-Chair	Alex Schneider	Kevin Schneider
Awards Chair	Joydeep mitra	Kevin Schneider
Standards Coordinator	Alex Schneider	Chris Dent
Web Master	Dagmar Niebur	Dagmar Niebur

In 2020 AMPS reviewed over 340 technical papers for the GM and accepted 168, plus 60 transaction papers. AMPS has had the highest or second highest number of papers among technical committees for a number of years. The number of submissions for the 2021 PES GM is down by approximately 50%, which is consistent with submissions from other committees, and is attributed to the virtual format of the conference.

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 2020 GM, the AMPS Committee sponsored 29 panel sessions, a few of which were co-sponsored with other Technical Committees. For the 2021 GM, over 30 panel sessions have been proposed, but it is expected that some will be dropped, and others combined.

The AMPS Committee is the sponsor of record for three IEEE Standards. At the end of 2020 Chris Dent took over from Alex Schneider as the AMPS Standards Coordinator. 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. In 2020 there has been extensive discussion about sponsoring of Entity Standards. It is hoped that the IEEE and PES will improve the structure of how Entity coordinates with the sponsoring technical committees.

Within the AMPS Committee, and the Subcommittee, there are a number of Working Groups and Task Forces. Multiple proposals for new Working Groups and Task Forces were evaluated in 2020, and 2 New Working Groups were formed, and one completed its tasking and was terminated. Additionally, 7 new Task Forces were formed. Current AMPS has a total of 21 Working Groups and 28 Task Forces.

Historically, most members of the AMPS 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. There are numerous active committee members that are not able to routinely attend meetings at the PES GM due to supporting AMPS coordinating activities. They are still considered active members because of their ongoing work, despite the conflict caused which prevents them from attending GM meetings.

As with other Technical Committees, the AMPS Committee maintains an Awards Working Group, but the structure was changed in 2020. Through the efforts of Joydeep Mitra, in the new structure the chair is the AMPS past-chair and the members are the subcommittee past-chairs. This structure ensures that the members are well aware of the activities occurring in the subcommittees. At the end of 2020 the Chair rotated from Joydeep to Kevin Schneider.

The Committee continues hold semi-annual meetings of Committee officers virtually. Multiple AMPS officers attended the meeting virtually.

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:



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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 Committee plans to systematically nominate retiring Committee and Subcommittee officers for appropriate recognition where appropriate. This will be executed by the awards working group, chaired by the AMPS past-chair, but will require nominations from the greatest cross section of members as possible.

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

At the end of 2020 the coordinating committee representatives were renewed and will begin to reengage with the various technical committees. While there is still one opening, RSICC, the current representatives are shown in the table below.

Coordinating Committee Representatives	
Energy Internet Coordinating Committee (EICC)	Stephen McArthur
Intelligent Grid & Emerging Technologies (iGET)	Yanfeng Gong
Marine Systems	Kevin Schneider
Renewable Systems Integration (RSICC)	TBD

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. One example of this is machine learning and artificial intelligence (ML/AI). AI/ML is a fast-growing area of research that AMPS is examining and is ensuring that the formation of new working groups and task forces on this topic are in line with other existing efforts in.

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). Please provide the following information.

Total Number of AMPS committee members	AMPS Officers from regions 8,9 and 10	AMPS Subcommittee officers from regions 8, 9 and 10	AMPS Subcommittee members from regions 8,9, and 10
129	2	4	Unavailable in 123signup

8. Problems and Concerns:

Multiple members have expressed challenges with the use of 123Signup, including officers. The challenge is that it is often difficult to initially log on. Multiple people have expressed frustration with the



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system sending no clear information about logging on or what they are members of. Instead, they have to try multiple e-mail addresses and in some cases are never able to log on.

The AMPS members understand that this system must be used for IEEE business, but AMPS highly encourages the IEEE to invest in more efficient systems, and support, that help members conduct their volunteer business. If the IEEE continues to use disparate non-connected systems requiring volunteers to spend inordinate amounts of time managing accounts, then people will reduce the time they spend supporting the IEEE.

9. Significant Plans for the Next Period:

- 1) With an officer rotation on 12/31/20 a new set of officers are in place. The first order of business is a transition of duties and responsibilities to these new members.
- 2) The structure for AMPS has been set up in 123Signup, but there are fundamental problems that many members have experienced using it. Work will continue in an attempt to address this.

Submitted by: Kevin P. Schneider, Chair

Date: January 30th, 2021

Kwok W. Cheung, Vice Chair

Steven S. Miller, Secretary

Alexander W. Schneider, Jr., Past Chair

Yanfeng Gong, TCPC