

**Draft minutes for 2018 IEEE PESGM Big Data Analytics (BDA) Subcommittee Meeting
August 8, 2018
Portland, OR**

1. Introduction

Le Xie introduced the subcommittee and reviewed the meeting agenda

2. Approval of minutes from the 2017 meeting

Ning Zhou moved, Nanpeng Yu seconded. Members voted in favor of approving the 2017 meeting minutes

3. Announcements/summary

- Papers statistics: total paper submitted: 44, accepted: 19. Transaction paper: 3
- Call nomination of Vice chair / TCPC
- Activities from last year
 - IEEE utility big data workshop
 - NSF workshop on real-time learning and decision making
 - NSF workshop on data analytics for grid resiliency
 - Panel session in IEEE T&D
 - EPRI tutorial
 - Webinar series
- Subcommittee website is established and is linked with AMPS (<http://sites.ieee.org/pes-bdaps/>)
- Report from WG/TF
 - Big data application in power distribution system TF
 - Identify all the use cases
 - Interact with utility in IEEE T&D and DistribuTech
 - Short course in DOE and EPRI
 - Text book on big data application in power system
 - Big data webinar series TF
 - Try to find the time that works best for global audience (15K audience)
 - 2017-2018: more on industry side
 - 201802019: more on methodology
 - Data access WG
 - Combine available data sources (Transmission, Distribution, behind-the meter, other related data)
 - A website is created and linked to the subcommittee website (<https://bigdata.seas.gwu.edu>)
 - Special issues, Liaisons, papers
- Panel session chairs provided updates on the BDA sponsored panels at 2018 PES GM:
 - **Super session: Data science and data quality as applied to power system** (Session chair: Nanpeng Yu, Le Xie)
 - 6 speakers (from vendor, industry, national lab, and academia)
 - 1300 people viewing from Facebook

- **Panel session: Big data analytics for emerging power sensors and internet-of-things** (Session chair: Hamed Mohsenian-Rad, Emma Stewart)
- **Panel session: Big data analytics focus on end-use customers in power distribution systems** (Session chair: Nanpeng Yu, Haiwang Zhong)
- **Panel session: Big data analytics for flexible electricity networks, markets and prosumers** (Session chair: Ran Li, Tao Hong)
 - About 80 people attend
- **Panel session: Best practices in sharing big data in power systems** (Session chair: Ning Zhou, Hamed Mohsenian-Rad)
- **Panel session: Smart meters: from consumer behavior to planning** (Session chair: Ram Rajagopal)
- **Panel session: High performance computing and big data analytics for large scale power system planning problems** (Session chair: Dimitri Papageorgiou, Yingzhong Gu)

4. Proposed 2019 GM panel session

- Panel for predictive analytics for renewable
- Panel for Data analytics tool for sensing stability in the network
- Panel for Smart meter analysis to detect energy theft & load behavior
- Panel for Data governance & data usage & Asset health
- Panel for Framework of big data: how to apply different application using the data
- Panel for Reliability of big data& probability reliability analysis
- Edwin Liu suggest to have Data-enabled AI application. Combine the effort of Big data subcommittees and ISAP (Intelligent system application to power system). Use IoT & AI to advance power grid operation and planning
- Panel for Scenario constrained big data analytics for optimization
- Panel for Big data application for system protection
- The final panel submission will be determined via voting among the subcommittee members.

5. New Initiative

- [Le]: We are relatively young subcommittee. We want a thoughtful growth and try to attract talent. The key is to be able to substantiate the efforts.
- For proposed TF, Presentation is given on: Weather analytics with power grid
- For proposed TF, Presentation is given on: Probability analysis for power system reliability

6. Future activities

- Currently the BDA core team consists of Chair, Vice-chair, Secretary, TF leaderships, and IEEE Big Data liaison, the core team will met bi-weekly or quarterly for subcommittee activities.
- Tutorial of big data application in distribution system