ISGT ASIA 2019 – Smart Grid Links Future

Call for Special Sessions

2019 IEEE Innovative Smart Grid Technologies - Asia (ISGT ASIA 2019), sponsored by the IEEE Power & Energy Society (PES), will be held from 21-24 May 2019 in Jinjiang Hotel, Chengdu, China, with the theme “Smart Grid Links Future”.

ISGT ASIA 2019 is a forum to discuss the latest issues, trends, and emerging and innovative technologies for grid modernization in the face of challenges of a rapidly changing environment resulting from the dramatic increase in deployments of renewable and Distributed Energy Resources (DERs) and the emergence of new business and operating concepts and services. The elements of interest include prosumers, microgrids, aggregators, distribution markets, and platforms in the generation, commercialization, and management of electricity.

The Conference will feature plenary sessions, panels, technical papers, and tutorials by experts on grid modernization, transmission and distribution systems planning and operations, DER integration, smart grid technologies and applications, and system integration. A key focus of ISGT is to facilitate in-depth discussions among the participants – sharing experiences and lessons learned, and raising the awareness and understanding of the latest concepts, applications, and technologies.

The Conference scope covers the six tracks and could include the following general topics:

Track 1: Grid Operation and Management

- Smart grid planning
- Scenario and forecasting analysis
- Stability analysis
- Reliability analysis
- Grid dynamics management
- T&D interface issues and solutions
- Grid modelling and simulation
- Fault diagnostics and self-healing
- Active distribution network operation and management
- Transmission-distribution coordination
- Assessing impacts of renewable generation
- Combined distributed generation-energy storage

Track 2: Computational Intelligence Applications, Information and Communication Technologies (ICT), and Cyber-Security
- Computational intelligence applications in smart grid algorithms for modeling
- Control and optimization
- Roles of ICT in smart grids
- Smart metering
- Data acquisition and monitoring
- Sensor networks
- Information and communication protocols and standards
- Big data analytics and data management
- Cyber security

**Track 3: Renewable Generation and Distributed Energy Resources Integration**

- Generation and demand forecasting and prediction
- Demand side management
- Grid integration of distributed energy resources
- Impacts of renewables on energy markets and prices
- Stability and power quality issues
- System planning/operation with higher DER penetration
- Safe disconnection and islanded systems
- Grid connected energy storage systems and their control
- Electric vehicle charging technologies and its impact in grid operation

**Track 4: Power Electronics and Control and Protection systems for Smart Grids**

- Smart grid protection solutions
- Optimal integration of Plug-in electric vehicle
- Power electronic interface for smart grid operation and control
- Power system monitoring, control
- Protection, situational awareness and control
- Smart micro-grids and nano-grids

**Track 5: Emerging Technologies and End-user Systems**

- DC Microgrids and Nanogrids networks
- Smart buildings
- Smart home automation and energy management
- Smart cities solutions
- Sustainable energy technologies and challenges
- Stakeholder’s opportunities and risks
- Customer side systems
- User behavior and flexible demand
- Energy prices both wholesale and retail
Track 6: Electricity Market, Innovative Business Mechanism, Policy/Regulatory Aspects

- Methods and tools that can evaluate technological and policy options
- Operational and regulatory coordination challenges and possibilities at the transmission and distribution seams
- Distribution markets and system platforms (DSP, DSO, etc.)
- Converged infrastructures, including Smart Cities
- Transactive Energy Systems and related topics such as emerging grid services, tradable products, and incentive-compatible market design
- Possibilities and limitations of emerging hardware/software technologies (Internet of Things-IoT, Blockchain, etc.) in facilitating distributed transactive exchanges

The Conference Organizing Committee invites practitioners and researchers worldwide to submit proposals for special sessions.

Within the scope of Conference, proposals including presentations of electric utility experiences and practical implementations of novel concepts and solutions are encouraged.
Special Session Proposal Submission

Special session proposals are to be submitted by December 31, 2018 (no later than 11:59 PT EST). Email your proposal to ISGTASIA2019@uestc.edu.cn

Required Information

1) Name, Affiliation and Contact Information:

Please provide your name, title, affiliation, and contact information (e-mail address).

2) Title of Special Session:

Please provide the title of the special session.

3) Aims and Scope of Special Session:

Please provide a discussion of the content and format of the special session. The discussion on content should be sufficiently detailed to understand how it addresses one or more themes of the conference.

Please provide the names, email addresses, titles and affiliations of the session participants with descriptions of what they intend to cover.

The above discussion can range from 300 to 2000 words, approximately.

Important Dates

- Submission Deadline for Special Session Proposals: December 31, 2018 (at 11:59 PM EST) Email your proposal to ISGTASIA2019@uestc.edu.cn
- Notification of Special Session Acceptance: January 15, 2019

Contact: ISGTASIA2019@uestc.edu.cn

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