

2022 IEEE PES Innovative Smart Grid Technologies Asia (ISGT-Asia 2022)



November 2 to 5, 2022
Singapore

Energy Resilience & Sustainability for Smart Nations

Call for Papers

The 11th International Conference on Innovative Smart Grid Technologies (ISGT-Asia 2022), sponsored by the IEEE Power & Energy Society (PES), will be held from 2-5 November 2022 in Marina Bay Sands, Singapore, the world's gateway to Southeast Asia. The IEEE PES ISGT-Asia 2022 conference will be a melting pot of participants from academia, industry, research and development organizations, electric power utilities, power and energy sector service providers, and the government to discuss, share and exchange ideas related to state-of-the-art innovations in smart grid technologies for the future grid. The theme of this year's conference is "Energy Resilience & Sustainability for Smart Nations" and includes industrial panel sessions, keynote speeches, tutorials, papers and poster presentations.

With 6 technical streams spread over 3 days, there will be plenty of opportunities for you to showcase your work in front of professionals in the smart grid sector at this hugely popular conference.

Conference Topics:

The conference organizing committee invites contributions in all areas related to smart grid technologies, including (but not limited to) the following:

1. System Planning and Operation with High-Level Renewable Energy Resources

Smart grid system planning, operation, reliability, T&D interface issues and solutions, system modeling, real-time simulation, co-simulation techniques, preventive maintenance, active distribution network, innovative state estimation tools, frequency response, ancillary services, and large-scale operation with distributed generation.

2. Information and Communication Technologies (ICT) and Cyber-Physical Security

Roles of ICT in smart grids, smart metering, data acquisition and monitoring, sensor networks, information and communication protocols and standards, 5G techniques and applications to smart grid, big data analytics, cloud computing, data management, substation automation, and cyber-physical security.

3. Renewable Generation Integration and Low-Inertia Grid

Power electronic circuit topologies and control strategies, integration of inverter-based resources (IBRs), grid-forming and grid-following controls, stability and power quality issues, grid-connected energy storage systems and their control, electric vehicle charging technologies and its impact in grid operation, overlay grids, electric drives, electric vehicle technologies, solid-state transformers.

4. Artificial Intelligence (AI) for Grid Resilience Enhancement

Models and tools to simulate and quantify climate change impacts on grid reliability and resiliency, resiliency metrics and hardening techniques, use of renewable energy for grid resilience, proactive control, fast restoration, AI/machine learning for grid resilience, machine learning for transient stability analysis, smart grid protection solutions.

5. Grid-Edge Systems and Technologies

Microgrid, Islanding, energy & demand-side management system, and consumer behavior, grid-interactive efficient buildings, energy efficiency, grid-edge intelligence, district heating and cooling, smart cities solutions, restoration and mitigation of extreme events.

6. Electricity Market, Innovative Business Mechanism, Policy/Regulatory Aspects

Regulatory aspects, policies, standards, electricity market mechanics, design and business models, economic impacts on energy market price, and smart grid awareness.

Important Dates:

Tutorial/Special Session proposal submission deadline: 28 February 2022

Tutorial/Special Session decision notification: 31 March 2022

Regular Paper submission deadline: 30 April 2022

Regular Paper decision notification: 31 July 2022

Final Paper submission deadline: 5 September 2022

Early Bird registration: 5 September 2022

