

### **About Auckland**

As New Zealand's largest city, Auckland is the country's financial and economic powerhouse, and the gateway to the rest of the country. The modern city centre is surrounded by sparkling harbours, native forest, beautiful beaches and scenic wine regions. Auckland is a thriving high-tech hub of the Asia-Pacific region, home to more than 20,000 innovation-based companies. Auckland Convention Bureau can access experts across business, industry, tertiary and research institutions, making the city the perfect choice for international delegates to connect and collaborate..

### Waitemata Harbour

The wide sweep of Waitemata Harbour slices Auckland in two and is the city's most prominent natural feature. It was because of this easily navigable waterway that Auckland became New Zealand's capital in 1840 (the country's capital is now Wellington, though Auckland remains New Zealand's economic powerhouse). It's a delightful area to explore on foot and features a variety of shopping, dining, and entertainment opportunities.



## ORGANIZING COMMITTEE **IEEE PES ISGT ASIA 2023**











Tran The Hoang







WIE Chair &

Yuan Liu



Xin Liu











### Conference website:

https://ieee-isat-asia.ora/

**Paper Submission Link:** 

https://ieee-isgt-asia.org/papers

**Technical Enquiries:** isgt2023@gmail.com











**IEEE** 







CALL

**FOR** 

**ISGT ASIA 2023** 21-24 November 2023 | Auckland, New Zealand

# Call for Paper Submissions & Special Session proposals

# Grid Edge Technologies towards Resilient and Sustainable Energy Systems

IEEE PES ISGT Asia will be a venue for stakeholders from academia, electric power utilities, power and energy service providers, and research and development organizations to share and exchange experiences, new ideas and enabling technologies which will address the enormous challenges to be faced by the industry in response to decarbonisation of generation and integration of high levels of renewable energy resources into future power grids.

Some key highlights of this annual conference includes:

- **Tutorial Sessions**
- Keynote presentations from practice leaders in the field
- Presentation & poster sessions for idea sharing & discussion
- Students/Young Professionals Networking Forum
- Trade booths & themed panel sessions

#### Themes planned for ISGT-ASIA 2023

Hosting ISGT ASIA in Auckland with a focus on IEEE Future Directions will provide IEEE members & non-members access to the best knowledge, resources & opportunities in emerging technologies, & address public fear & challenges faced by the city as innovative technology is introduced & embraced. The theme has been selected to give a strong international & local flavor. The technical tracks will align with the strong traditional technical themes of IEEE like signal processing, robotics, biomedical, communications, computers, power & energy, power electronics, software etc. along with new emergent & exciting IEEE Future Directions platforms.











#### **Tutorial Sessions**

- The regular tracks will be supplemented with Tutorial & workshop sessions which will be mostly focused on future direction of different technology to enhance the resilience of the living. These are currently planned for venue-based attendees.
- More information for the paper submission as per the IEEE guidelines can be found on the conference website. The accepted & presented papers will be submitted to IEEE Xplore Digital Library.

#### Track 1: SMART GRID PLANNING, OPERATION & ANALYSIS

- New methods/tools for smart grid planning and operation
- Advanced load and renewable forecasting, state estimation
- Grid congestion and uncertainty management
- Transient stability studies of low-inertia power systems
- Hybrid AC/DC grids
- Distribution and transmission coordination

#### Track 2: PROTECTION, CONTROL, AND AUTOMATION OF **MODERN POWER SYSTEMS**

- Intelligent protection and control strategies
- Advanced FLISR, OMS, SCADA, Volt/VAR optimization, fast frequency response, dynamic voltage support
- IEC 61850 and substation digitalisation
- ICT and Cyber-security
- Smart grid interoperability and standards

#### Track 3: ELECTRICITY MARKET, REGULATIONS AND **STANDARDS**

- Regulatory frameworks and policies
- New business models and transactive platforms
- Demand response flexibility and demand side management
- Local energy communities, prosumers, aggregators, microgrids ...







#### Track 4: RENEWABLE ENERGY INTEGRATION AND CONTROL

- Renewable energy integration and grid code compliance studies
- Advanced power inverters and their grid support capabilities
- Electric vehicle integration
- Technology developments and research in the field of green hydrogen energy.
- Multi-energy systems

#### Track 5: GRID RESILIENCE AND RELIABILITY

- High-impact low-probability events
- Grid resilience evaluation, management, and enhancement
- Wildfire mitigation
- Climate Change

#### Track 5: ADVANCED TECHNOLOGIES/TOOLS FOR SMART GRID APPLICATIONS **AND VALIDATIONS**

- AI, Machine learning, data science, IoT
- Application of 5G and new communication technologies for smart grids
- Digital transformation in power sector
- Smart homes and smart buildings
- Supercomputing and quantum computing in smart grid
- Digital twin, real-time simulations, multi-domain cosimulation

#### Track 6: POWER ENGINEERING EDUCATION AND FUTURE WORKFORCE FO **SUCCESS**

- Best Practices in Online Engineering Education
- Lab-Based Instruction and Learning
- Engineering Innovation
- Sustainability and Climate Change Engineering
- Future Workforce Development

# **IMPORTANT DATES:**

### **Papers Submission**

Full-Paper Deadline: 15/06/2023 30/July/2023 5pm NZT

**Acceptance Notification: 15/08/2023** Camera Ready Submission: 25/09/2023















