



# Call for papers



## ISGT Asia 2024

10-13 November 2024, Bengaluru, India



### Call for Papers:

The 13th IEEE PES Innovative Smart Grid Technologies, Asia conference is an IEEE PES flagship conference organized in Asia. The IEEE PES ISGT 2024 is sponsored by IEEE Power & Energy Society and conducted by IEEE PES Bengaluru Chapter from 10-13, November 2024 in Bengaluru, India.

The IEEE PES ISGT 2024 Asia will be a venue for stakeholders from power and energy utilities, industries, vendors and service providers, academia, and research and development organizations. The conference provides a platform to share and exchange experiences, new ideas and enabling technologies which will address the enormous challenges to be faced by the power and energy industry in response to decarbonisation and integration of high levels of renewable energy resources into future power grids.

The IEEE ISGT Asia will provide IEEE members & non-members access to the best knowledge, resources & opportunities in emerging technologies, challenges faced by power and energy industry/utilities across Asia and the globe.

#### About Bangalore :

With a rich history dating back to the 16th century when it was founded by Kempe Gowda, Bangalore has evolved into a global hub for information technology and biotechnology. Home to numerous multinational corporations, startups, and research institutions, the city has earned its reputation as the "Garden City of India" owing to its lush greenery and pleasant climate.

One of the city's key attractions is its cosmopolitan nature, where people from diverse backgrounds and cultures coexist harmoniously. You'll find a blend of traditional South Indian culture, modernity, and a youthful energy that permeates the city's streets, parks, and technology parks.

Bangalore is renowned for its educational institutions, making it a hotspot for academic and research pursuits. From the prestigious Indian Institute of Science (IISc) to renowned engineering and management colleges, the city fosters a culture of learning and innovation.



#### Key highlights:

- Tutorial sessions.
- Keynote presentations and industry driven panel discussions.
- Paper presentations and poster sessions.
- Students/Young professionals networking.

The regular paper tracks will be supplemented with tutorials & panel discussion which will focus on addressing the present changes and future direction of different technologies to enhance the grid operation and planning.

The technical tracks will align with the strong traditional technical themes and emerging technologies like smart grid technologies, communications, algorithms, power & energy, power electronics, decarbonisation, case studies etc. Interested authors are requested to send the full paper in IEEE format on the below topics mentioned under various themes.



## THEMES

## TOPICS

### Smart Grid technologies, tools and applications

Advanced technologies/tools for smart grid  
Transmission system technologies, HVDC and FACTS  
Advancements in WAMS, ADMS, DERMS, EMS, and OMS solutions  
High performance computing applications  
Application of new communication technologies for smart grids  
Substation modernization and automation  
Micro grids, smart homes and smart buildings  
Data analytics, machine learning, digital twin, and artificial intelligence in smart grids  
Smart grid monitoring and advanced metering infrastructures  
Information and communication technologies for smart grids

### Clean Energy Transition

Multi sectorial renewable energy integration and net zero  
Storage technologies for renewable integration  
Low-inertia and inertia-free power systems  
Green hydrogen technologies  
Modeling and dynamic simulations  
Integration and interactions of power electronics-interfaced resources  
Electric vehicle grid integration  
Super Grid  
Small modular reactors (SMRs)  
Off-shore wind and solar

### Protection, Resilience and Reliability

Cyber-physical and cybersecurity in smart grids  
Intelligent protection and control strategies  
Grid resilience evaluation and improvements  
Climate resilient power system  
Power quality in smart grids

### Smart Grid regulations and standards

Smart grid interoperability and standards  
Energy policy, future energy markets and trading  
Demand response flexibility and demand side management  
Ancillary markets  
Electric vehicle to grid services  
Grid integration standards  
Cyber security policy and standards  
Safety regulations and standardst  
Transactive energy

### Industry applications and case studies

Advanced tools for smart grid planning and operation  
Advanced load and renewable forecasting  
Grid congestion and uncertainty management  
Integration studies: pathways for low carbon and sustainable energy systems  
Transmission and Distribution system coordination  
Lessons learned/best practices from demonstrators of smart grid technologies  
Hybrid AC/DC grids  
New business models for smart grids

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R. Nagaraja, Managing Director, PRDC, India.

#### Conference Co-chair and Convenor:

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#### Industry Chair:

Balaraman K, Executive Director, Idam Infrastructure Advisory Pvt. Ltd, India

#### Information Contact:

Abhishek M Appaji, Assoc. Professor at BMS College of Engineering, India.

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#### Conference Secretary:

Satish B A, Asst. Professor, Dayananda Sagar College of Engineering, India.

#### Publications Chair:

Deepak Krishnan, Assoc. Director, Energy, World Resources Institute, India.

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Sheldon Williamson, Ontario Tech University, Canada

S N Singh, PES R10 West Zone Chapters Representative, India

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.

Full paper submission date

30.04.2024

Notification of acceptance

30.06.2024

Final paper submission date

30.07.2024

#### Contact:

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#### IEEE PES Bangalore Chapter website:

<https://r10.ieee.org/bangalore-pes/>