



IEEE PES GTD ASIA 2025

Grand International Generation, Transmission & Distribution
Conference and Exposition Asia



Accelerating The Energy Transition

Toward Carbon Neutrality – a Sustainable Energy Future for All

Join us at **IEEE PES GTD Asia 2025**,
the Premier Event of the IEEE, with
the World's Leaders to **Power the Future Together!**

Call for Paper

FINAL EXTENDED

IMPORTANT DATES

Full Paper Submission Deadline:	30 Sep 2025
Camera-Ready Submission Before:	1 Nov 2025
Author/Presenter Registration and Early Bird Rate Deadline:	30 Sep 2025



Conference

26th - 29th November 2025



Exposition

27th - 29th November 2025



Venue

Queen Sirikit National Convention
Center (QSNCC), Bangkok, Thailand



10,000+
ATTENDEES



400+
EXHIBITORS



300+
INTERNATIONAL
SPEAKERS



30+
CONFERENCE
TRACKS



SUPER
SESSIONS



PANEL
SESSIONS



KEYNOTE
SESSIONS



POSTER
SESSIONS



MULTIPLE
NETWORKING



PG
Power
Generation



T&D
Transmission
& Distribution



RE
Renewable
Energy

Local Host:



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CALL FOR PAPER

IEEE PES Generation, Transmission and Distribution Grand International Conference and Exposition Asia (GTD Asia 2025), hosted by IEEE Power & Energy Society, will be held during **26 – 29 November 2025 at Queen Sirikit National Convention Center (QSNCC), Bangkok, Thailand**. This event has been inherited from IEEE PES T&D Conference and Exhibition arranged biannually in America for more than 40 years. The second GTD Asia in Thailand is renowned as the world class event and expected to be the most prominent event of IEEE PES held in Asia, which will feature three major tracks: (i) Power Generation, (ii) Transmission and Distribution and (iii) Renewable Energy.

The GTD Asia 2025 comes with the great purpose of exchanging ideas and experiences through various sessions of panel sessions, forums, poster sessions, oral presentations and inclusive keynote and super sessions by international speakers and global well-known professors. Over 10,000 participants from all over the world including top executives, government officials, policy makers, and professional researchers will gather to strengthen the world's power and energy related industry network. Through the highlights of exhibition, the main utilities in Thailand, key players and leading companies in national and international levels will showcase their innovation, state-of-the-art technology, R&D, advanced system, and future trend for power and energy development.

Full Paper Submission **DEADLINE: 30 Sep 2025**

FORMAT & GUIDELINES

1. From the list of topics, select at least ONE Primary and ONE Secondary topic. The topics must be related to your submission.

This information will be used by the committee for assigning appropriate reviewers and scheduling sessions.

2. Author of full paper must use the Paper Template Paper to prepare your article.

3. Abstract only submitters must enter the text in the designated text box. Abstract should be between 100 and 180 words and contain text only.

Conference Topics

GENERATION

- A1. Carbon Capture and Utilization:** Implementation of carbon capture, utilization, and storage (CCUS) technologies in power generation to reduce emissions.
- A2. Digital Twin Technologies for Power Generation:** Leveraging predictive maintenance, real-time monitoring, and optimization through digital twins to enhance efficiency in power generation.
- A3. Innovative Nuclear Technologies:** Advancements in small modular reactors (SMRs) and next-generation nuclear power technologies to improve safety and efficiency.
- A4. Integration of Hydrogen and Fuel Cell Technology in Power Generation:** Exploring the role of green hydrogen in future power plants and its effects on grid stability and emission reductions.
- A5. Next-Generation Gas Turbines:** Development of advanced gas turbine technologies aimed at increasing efficiency and reducing emissions.

DISTRIBUTION

- C1. Advanced Distribution Management Systems (ADMS):** Utilizing advanced software and analytics to improve the control and optimization of distribution networks.
- C2. Electric Vehicle Impact and Solutions:** Addressing the challenges and opportunities of widespread electric vehicle adoption on distribution networks.
- C3. Integration and Management of Distributed Energy Resources (DERs):** Strategies for integrating and managing distributed generation sources within distribution networks like energy storage, rooftop solar, and small wind turbines.
- C4. Microgrids and Decentralized Energy Systems:** Enhancing grid, hybrid DC/AC Microgrids, control and optimization algorithms, power quality and stability, modular and scalable Designs, advanced communication protocols.
- C5. Next-Gen Smart Grid Technologies:** Innovations in smart grid infrastructure, including smart transformers and advanced distribution management systems.
- C6. Smart Metering and AMI:** Advancements in smart metering and advanced metering infrastructure (AMI) to improve grid management and efficiency.

TRANSMISSION

- B1. Dynamic Line Rating (DLR) Innovations:** Enhancing transmission line efficiency and capacity using real-time data and dynamic line rating technologies.
- B2. Grid Resilience to Natural Disasters:** Designing robust transmission networks capable of withstanding and recovering from natural disasters such as hurricanes and earthquakes.
- B3. HVDC Systems and Technologies:** Progress in high-voltage direct current (HVDC) technology for effective long-distance power transmission.
- B4. Superconducting Transmission:** Investigating the use of superconducting materials to minimize transmission losses and enhance network capacity.
- B5. Phasor Measurement Units (PMUs):** Advanced applications of PMUs for real-time monitoring and control of transmission systems.
- B6. Power Flow Controllers:** Developing innovative power flow control devices to manage congestion and improve grid flexibility.

RENEWABLE ENERGY

- D1. Bioenergy and Waste-to-Energy Systems:** Utilizing biomass, agricultural waste, and municipal solid waste for energy production, and advancing technologies for converting these materials into clean energy.
- D2. Floating Solar and Wind Turbine Technology:** Innovations and challenges in deploying solar panels and wind turbines on water bodies to maximize energy capture.
- D3. Integration of Renewable Energy into Distribution Networks:** Addressing the challenges and solutions for incorporating high levels of distributed renewable energy sources into distribution networks.
- D4. Renewable Hydrogen Production:** Techniques for producing hydrogen from renewable energy sources such as wind and solar power.
- D5. Solar-to-Fuel Technologies:** Cutting-edge research on converting solar energy directly into fuels like hydrogen through advanced electrolysis and photoelectrochemical processes.

OTHER TOPICS

- E1. Advanced Sensor Networks for Transmission Monitoring:** Utilizing IoT sensors and machine learning for real-time health monitoring and predictive maintenance of transmission lines.
- E2. Artificial Intelligence and Machine Learning in Power Systems:** Applying AI and ML for predictive maintenance, demand forecasting, power system optimization, load distribution, fault detection, and self-healing grid capabilities.
- E3. Blockchain for Grid Transparency:** Enhancing transparency, security, and efficiency in grid transactions through blockchain technology.
- E4. Cybersecurity in Power Systems:** Developing robust cybersecurity measures to protect power infrastructure from increasing cyber threats.
- E5. Decentralized Energy Generation Models:** Exploring new approaches to decentralized and peer-to-peer energy generation and management.
- E6. Electrification of Transportation:** Innovations in electric vehicles, charging infrastructure, and the impact of transportation electrification on the grid.
- E7. Quantum Computing Applications in Energy:** Investigating the potential of quantum computing to revolutionize energy modeling, simulation, and optimization.
- E8. Sustainable Energy Policy and Market Design:** Analyzing the impact of regulatory frameworks, market mechanisms, and policies on the adoption of sustainable energy practices and technologies.
- E9. Wireless Power Transmission:** Cutting-edge research on wireless energy transfer for high-voltage applications, charging devices, electric vehicles, and more.