# **GRIDCUN 2025**





# Namaste

**Key Dates:** 

**Registration Starts:** 15th October 2024

Synopsis
Submission
Deadline:

30th November 2024

Notification of Acceptance:

15th December 2024

Final Paper Submission:

31st January 2025

For detailed submission guidelines and conference information, please visit the GRIDCON 2025 website

https://
apps.powergrid.in/
gridcon

or contact the organizing committee at

gridcon@powergri d.in



# Innovations in Grid Resilience: Strategies for Enhancing Reliability, Sustainability, and Adaptability of Power Transmission System

The **GRIDCON 2025**, a premier event in the power transmission industry, invites **professionals**, **researchers**, **and academics across the global power system community** to submit technical papers to shape the future of grid resilience, asset management, and digital transformation. As we face rapid changes in technology and operations, this conference will provide a platform to explore cutting-edge solutions and strategies for a reliable, efficient, and sustainable power grid.

We invite papers on the following Preferential Subjects which are aligned with various CIGRE Study committees viz. A2, A3, B2, B3, B4, B5, C1, C2, C3, C4, D1 and D2.

### **PREFERENTIAL SUBJECTS**

# PS1: SMART ASSET MANAGEMENT: UNLOCKING EFFICIENCY THROUGH NEXT-GENERATION TECHNOLOGIES

The future of asset management lies in leveraging data-driven and digital solutions to optimize performance, enhance reliability, and extend the lifespan of grid equipment. This subject invites papers that showcase innovative tools, techniques, and methodologies for smart asset management.

### **Subtopics:**

- Condition Assessment of Transmission Equipments
- Al-Driven Predictive Maintenance
- Advanced Analytics for Failure Prediction
- Asset Health Indices and Decision Support Systems
- New Technologies in Transmission Lines and Cables
- New Technologies in HVDC, VSC, MVDC, LVDC, Hybrid DC
- New Technologies in Substations, switchgears, MV and HV Equipment
- Drones, robotics, and automated inspection solutions
- Digital Transformation of Asset Management
- Asset Refurbishment vs Replacement
- Simulation and Modelling for Life Extension of Assets
- Smart Financing/Investment Strategy in Power Transmission
- Best Practices in Human Asset Management

# PS2: FORTIFYING THE FUTURE: BUILDING GRID RESILIENCE IN THE FACE OF UNCERTAINTY

In an era of increasing climate volatility, cyber risks, and evolving demand patterns, building grid resilience is paramount. This subject seeks to explore new methodologies, tools, and frameworks that enhance the ability of power systems to withstand and recover from disruptions.

## **Subtopics:**

- Advances in Design and Engineering for Disaster Resilient Transmission System
- Predictive Grid Resilience Models and Cybersecurity
- Weather-Driven and High Impact Low Frequency Event Resilience Planning
- Restoration, Blackout Recovery, and Demand Flexibility
- Resilience through Microgrids and Distributed Energy Resources (DERs)
- Advanced Monitoring, Diagnostics, and Urban Grid Resilience
- Experiences with communication technologies in Transmission systems
- Global Case Studies in Grid Resilience
- Climate Adaptation Strategies for Transmission Systems

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### **PROGRAM**

The full program will be available closer to the conference and will include:

- CEO events
- Keynotes, Business and CEO panels
- Plenary Sessions
- Poster Sessions
- Next Generation Network (NGN) events
- A large international
   Technical Exhibition
- Women in Energy (WiE) event
- Best paper and best NGN papers (age <35 years) awards



# PS3: INNOVATING FOR SUSTAINABILITY: GREEN TECHNOLOGIES IN THE TRANSMISSION INDUSTRY

As the energy landscape evolves, the transmission industry is embracing green technologies to enhance sustainability, reduce environmental impact, and support the transition to a low-carbon future. This subject explores innovative solutions and practices that contribute to a greener power transmission network.

### **Subtopics:**

- Eco-Friendly Insulating Fluids & Materials
- Challenges & Mitigative Practices for RE Integration
- Energy Storage Solutions
- Smart Grid Technologies
- Reduction of SF6 Emissions

- Green Hydrogen/Green Ammonia
- Life Cycle Assessment of Transmission Assets
- Recycling & Circular Economy for Transmission Equipment
- Sustainable Procurement Practices for Transmission Projects

### **SUBMISSION OF SYNOPSIS**

The quality of the papers is initially assessed on the basis of a synopsis. To this end, the synopsis must summarise the results and advances that will be described in the paper (inclusive of figures, charts etc.). The synopsis should be in 500 words (max.). Final acceptance or non-acceptance is duly notified to authors. All synopses, papers, and presentations must be in English. Please note that at least one co-author must present the paper at the conference in form of digital posters.

### **WHY SUBMIT?**

GRIDCON 2025 is a unique opportunity to present your research and innovations to a global audience of industry leaders, academics, regulators and decision-makers. Selected papers will be featured at the conference, along with the national journal of CIGRE-India and have the potential for publication in e-CIGRE. Join us in shaping the future of grid resilience, asset management, and digital transformation!

Post conference, you may also participate in technical visit to World's Largest Multi Terminal HVDC station at  $\pm$  800 kV HVDC station, Agra (limited seats) or World's largest centralised remote operation centre for EHV Transmission assets at NTAMC, Manesar.

# **CONFERENCE VENUE**

# YASHOBHOOMI (IICC), Dwarka, Delhi

Nestled at the border of Delhi-Gurgaon, Located in Dwarka, New Delhi, YASHOBHOOMI (IICC) is India's largest convention and exhibition centre. Yashobhoomi stands as a beacon of excellence, offering state-of-the-art facilities. Yashobhoomi offers a mixed purpose tourism experience with the best location, convenient transportation, as well as various commercial facilities.

