IEEE ISGT Europe 2024 Conference

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Towards Net-Zero: Integrating Smart Technologies for a Decarbonized Connected Energy Grid

The IEEE PES ISGT Europe 2024 conference will feature keynotes, plenary sessions, panels, industry exhibits, paper and poster presentations by worldwide experts on smart grid and related technologies. Researchers, practitioners and students worldwide are invited to submit papers for consideration to be presented at the conference and to discuss the latest trends and emerging and innovative technologies for grid modernization

May 1 — **Full Paper Submission**

June 1 — **Notification of Decision**

June 14 — **Early-bird Registration Opens**

Sept. 14 — **Camera-ready Paper Submission**

The IEEE PES ISGT Europe 2024 is organized by IEEE Power & Energy Society (PES) and University of Zagreb Faculty of Electrical Engineering and Computing, Croatia

CONFERENCE TOPICS:

1 Components

- Smart substations
- Diagnostic, aging models, reliability and lifetime extension
- Circular economy, eco-design and components recycling
- Advancements in power electronics for smart grids
- Decarbonized generation units
- Security of supply in power systems with more renewables

2 Strategies for the managment of power systems

- Integration and management of energy storage systems
- Integration and operation power electronics-interfaced resources
- Advancements in ADMS, DERMS, EMS, and OMS solutions: solutions for microgrids
- Distribution and transmission system coordination
- Multi-energy systems: power-to-X storage, etc.s

3 Protection, ICT & automation

- Cybersecurity
- Protections, power quality
- Resilience regarding data exchanges
- Automation of active power systems
- Communication and real-time connectivity in smart grid
- Interoperability, standards and norms

4 Planning

- AC, DC, and hybrid power systems
- Uncertainty management
- Forecasting methodologies for grids planning & operation
- Prospective studies: pathways for low carbon and sustainable energy systems

5 Innovative method and tools for power systems

- Low-inertia and inertia-free power systems
- Grid resilience evaluation and improvements
- Digital twins and computer modelling
- Data science for power systems: the use of artificial intelligence for smart grids – edge computing and autonomous control

6 Market design, end-users, regulation, prosumers

- Demand response and demand side management
- VxG and prosumers commitment
- Local energy communities, transactive energy systems
- Energy policy, future energy markets, flexibilities valorization and trading
- Energy sufficiency and social prosumers incentive

7 Towards the large scale of deployment of new solutions

- Lessons learned/best practices from demonstrators of smart grid technologies
- High TRL industrial developments illustration
- Benchmarks, reviews and open data sharing