



ieee-isgt-europe.org

CALL FOR PAPERS

23rd - 26th October 2023 | Grenoble, France

Submission deadline : **MAY 22ND, 2023**

Powering solutions for decarbonized and resilient future smartgrids

Venue: Grenoble, France

Ranked in the Top 5 of the most innovative cities in the world, Grenoble is constantly reinventing the future. Rich in its scientific and industrial culture, the region offers a unique setting in the heart of the Alps. As a prime destination for hosting business and scientific events, the Grenoble-Alpes Métropole offers quality support and increasingly attractive and efficient solutions.

The notoriety of Grenoble-Isère relies on its exceptional natural environment and the wealth of the urban and cultural regional life. The many lakes and the very close Mediterranean sea offer to lovers of water sport, superb and diversified sites.

Rhône-Alpes is one of Europe's most prosperous and dynamic regions. It rates as the second most prosperous region in France, after Paris-Ile-de-France, with a gross interior product per inhabitant 6% higher than the average for the European Union. The land surface of Rhône-Alpes is equivalent to that of Belgium, Switzerland or the Netherlands, with a population of 6,068,000 inhabitants, comparable to Denmark or Finland.

ISGT Europe 2023 will feature keynotes, plenary sessions, panels, industry exhibits, paper and poster presentations by worldwide experts on smart grid and related technologies. Researchers, practitioners, industrials 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.

The IEEE PES ISGT Europe conference is one of the two IEEE PES flagship conferences organized in Europe and has established a strong reputation in the last years. It focuses on industrial and manufacturing theory and applications for the wide use of information and communication technologies and integrated renewable and distributed energy resources on the electric grid.

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CONFERENCE TOPICS

The Conference will feature keynote and plenary sessions, panel sessions, and technical papers presented in poster sessions, as well as pre-conference tutorials.

The Conference Organizing Committee invites practitioners and researchers worldwide to submit papers and panel proposals on conference topics outlined by the following three tracks:

Track 1: Sustainable energy infrastructures

Track 2: Technologies and processes for flexible and resilient grids

Track 3: Latest industrial developments towards resilient grids

Each track will cover topics among the following :

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

STRATEGIES FOR THE MANAGEMENT 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.

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

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

INNOVATIVE METHODS 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

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 incentives

TOWARDS THE LARGE SCALE 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

CONFERENCE CHAIRS

Conference Chair: Bertrand RAISON, Professor Université Grenoble Alpes, SMIEEE

Conference Honorary Chair: Nouredine HADJSAID, Professor Grenoble-INP, LFIEEE

Industry Chairs: Gabriel BAREUX, RTE-R&D Director & Pierre MALLET, ENEDIS-R&D Director

General Secretary and Finance Chair: Marie-Cécile ALVAREZ-HERAULT, Associate Professor Grenoble-INP

Technical Program and Track 1 Chair: Vincent DEBUSSCHERE, Associate Professor Grenoble-INP

Track 2 Chair: Georges KARINIOTAKIS, Professor MINES Paris, SMIEEE

Track 3 Chair: Marc PETIT, Professor CentraleSupélec

Publications Chair: Jérôme BUIRE, Associate Professor Grenoble-INP

Academic Chair: Delphine RIU, Professor Grenoble-INP

IMPORTANT DATES

Full Paper
Submission

May 22

Early-bird
Registration
Opens

June 1

Notification of
Decision

July 30

Standard
Registration
Opens

Sept. 30

Conference

Oct. 23-26