INTERNATIONAL SYMPOSIUM

Transition to Innovative, Sustainable and Resilient Power systems





Theme

Hosted by GCC CIGRE, the symposium focuses on recent researches, developments and policies related to transition to innovative, sustainable and resilient power systems. The symposium provides an opportunity for experts, scholars and engineers to exchange knowledge about such technical and regulatory aspects during technical sessions.

Venue



Muscat, capital of Sultanate Oman, is one of the Middle East's oldest and most picturesque cities. Between its corniches and modern quarter are Portuguese-built forts, blue-domed mosques, royal palaces, and souks. A mix of the charming, modern, where you can

enjoy your stay in Oman.

The venue of the Symposium is Oman Convention & Exhibition Centre which located in its own fully integrated precinct only four kilometers from Muscat International Airport. The Precinct provides the infrastructure necessary to host successful international, regional and local events and is there for the enjoyment of delegates, visitors and the local community. The precinct includes a JW Marriott Hotel (five star) linked to the Convention Centre, Crowne Plaza Hotel (four star). A business park, surrounded by a nature



reserve, which is a haven for Oman's exotic birdlife, together with parklands and a wadi (valley), are also part of this picturesque precinct. More details available at https://ocec.om/

www.sym2023.cigre-gcc.org

Programme

- Tutorial sessions will be held in the morning on Monday 6th March, and the opening session and the welcome reception in the afternoon.
- The main symposium sessions will take place on Tuesday 7th and Wednesday 8th March. Multiple sessions are planned to be held with several paper presentations in each. Sessions will run in parallel tracks.
- Detailed information for Working Group meetings, technical visit and Accompanying tour is available at https://sym2023.cigre-gcc.org/

Topics

1 - Driving towards an enhanced system Sustainability, and Resiliency with increasing shares of Renewables

A) Development of methods, models and analytic techniques to ensure resilience in future grids.

B) Addressing the future challenges in generating, transmitting and utilizing sustainable energy in an environmentally responsible manner, while improving business practices and operating efficiency, and enhancing reliability and power quality.

C] Innovative solutions for a more flexible power system, allowing for a higher, cost-effective integration and utilization of renewables

2 - Innovations in Future Power Grids in Energy Storage, Electric Vehicles & Digitalization

A) Evolution of Battery storage technologies and energy storage applications.

B) Opportunities and challenges of digital transformation of utilities in improving the digitalization.

C] Developing the usage of plug-in electric vehicles and emerging new concepts in transportation such as electric highways and the significant role of energy storage solutions for transportation.

3 - Development in HVDC Grids and Multi-terminal HVDC.

A) HVDC Grid and Multi-terminal HVDC systems

B) Development of medium voltage and low voltage DC systems

C) Challenges of HVDC systems with long distance overhead line and cables.

Papers Publication

Papers will be available for downloading from the Symposium website before the Symposium for all registered participants. The papers can be purchased in electronic format from CIGRE Central Office after the Symposium. The 6 best papers will be published in CIGRE Science & Engineering. A summary report of the Symposium will be published in ELEC-TRA after the event.



Registration

Information for registration will be available at https://sym2023.cigre-gcc.org/

Committees

The Technical Organizing Committee is made up of the following Study Committees chairs:

- A3 Transmission and distribution equipment
- C6 Active Distribution Systems and Distributed Energy Resources (Lead SC)
- B2 Overhead lines
- B4 DC systems and Power Electronics (Lead SC)

The Organizing Committee is chaired by Mr. Thani Al-Khusaibi, the chair-person of GCC National Committee.

The Technical Organizing Committee is chaired by Christine Schwaegerl, the chair-person of SC C6 and HU Joanne, the chair-person of SC B4.

The Local Organizing Committee is chaired by Mr. Ahmed Al Ebrahim, the GCC Technical Committee Chairman.

Submission of synopses

Participants wishing to present and publish papers should submit synopses (about 500 words) by following instructions on **https://sym2023.cigre-gcc.org/,** where the synopses and paper templates are also available. All synopses, papers, and presentations must be in English. Please note authors should be available to present at the symposium.

Deadlines

Authors should note the following deadlines: Submission of synopsis: 15th Sep. 2022 Notification of synopsis acceptance: 5th Oct. 2022

Submission of full paper: 5th Dec. 2022 Notification of PAPER acceptance: 5th Jan. 2023.

