

2025 GCC POWER

THE 21ST CIGRE-GCC INTERNATIONAL CONFERENCE
31ST EXHIBITION FOR ELECTRICAL EQUIPMENT

10-12 NOVEMBER 2025 | REGENCY HOTEL | KUWAIT

**Powering the Future Towards
Resilient, Clean and Digital Grids**

Conference Program

Time Based on UTC +3 (Kuwait Local Time)



GCC POWER
مؤتمر كهرباء الخليج
10-12 NOVEMBER 2025
REGENCY HOTEL - KUWAIT

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وزارة الكهرباء والماء والطاقة المتجددة
Ministry of Electricity & Water & Renewable Energy
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ORGANIZED BY





Welcome Message

It is with great pride and heartfelt joy that I welcome you to GCC POWER 2025—a defining moment for our region, where vision, expertise, and collaboration come together to shape a brighter future.

As Chairwoman of the Board, I am deeply honored to stand alongside such distinguished delegates, institutional leaders, and pioneering minds. This event reflects our shared commitment to excellence, inclusivity, and strategic progress across the GCC.

GCC POWER 2025 is not just a program—it is a platform for meaningful dialogue, and transformative outcomes. Together, we will explore best practices, address pending challenges, and celebrate the milestones that mark our collective journey. On behalf of the organizing committee and our esteemed partners, I extend my warmest welcome and sincere gratitude for your presence.

May this gathering inspire bold ideas, foster enduring partnerships, and reaffirm our pride in the progress we are building—together.

With appreciation,

H.E. Eng. Athari K. Al-Mohammed
CIGRE GCC, Board Chairwoman



Day One

Monday 10 November 2025
(19 Jumada al-Awwal 1447)



09:00	OPENING CEREMONY
09:00 - 09:05	Welcome statement and Holy Quran
09:05 - 09:10	Patronage Address
09:10 - 09:15	CIGRE GCC Address
09:15 - 09:20	CIGRE International Address
09:20 - 09:25	CIGRE GCC Pioneers Address
09:25 - 09:30	Display of the opening video
09:30 - 09:45	Honoring VIPs and Sponsors
09:45 - 10:10	Spotlight on Kuwait Electricity Sector Dr. Adel Al Zamel MEW Undersecretary
10:10 - 10:40	Exhibition inauguration
11:00 - 12:00	OPENING PANEL SESSION
	Experiences and Lessons Learned from Major Disturbances Leading to Partial or Complete Blackouts.
	Moderator: Sean McGuinness Principal Project Manager EPRI
	Panelists: 1. The Iberian peninsula Blackout Panelist: Mr. Julio Ramon Castro Gonzalez , CEO, Iberdrola 2. National Grid Saudi Arabia, Major Disturbance Panelist: Eng. Ahmed Al-Zahrani , VP, Operations & Control, National Grid-Saudi Arabia 3. The Oman Blackout Panelist: Mr. Maktoom Al Hosani , Manager, Operational Planning 4. The Chile Blackout Panelist: Mr. Juan Carlos Olmedo , Board president, CEN 5. The Brazil Blackout Panelist: Paulo Eduardo Martins Quintao
12:00 - 12:30	PRAYER BREAK & EXHIBITION VISIT

12:30 – 13:25 - TUTORIALS

TUTORIAL 1

Role of Synchrophasors in Wide Area Monitoring, Protection and Control of Interconnected Power Grids.

Speaker:

Athula Rajapakse

Professor, University of Manitoba
Winnipeg, Manitoba, Canada

TUTORIAL 2

Harmonic Voltage Limit Specification and Compliance Assessment in Power Systems

Speaker:

Dr. Selma Awadallah

Assistant Professor,
Hamad Bin Khalifa University,
State of Qatar

13:30 – 15:00 - SESSION 1

TRACK A

SESSION A1

Energy Storage as a Pillar of Grid Stability in Renewable-Driven Power Systems

Chaired by:

Eng. Naji Ahmed Al Messabi
EWEC-United Arab Emirates

A101

Enhancing Grid Stability in High Renewable Energy Penetration Systems: A Comparative Study of BESS and FACTS for Saudi Arabia Network.

By: **Mohamed A. Hassan**
Saudi Electricity Company
Saudi Arabia

A102

Hybrid Energy Storage System Sizing for Low-Carbon Power System- Oman National Grid Case Study

By: **Akhillas Al Waaili**
OETC-Oman

TRACK B

SESSION B1

Advancements in Asset Management for Power Systems

Chaired by:

Eng. Asma Alsallal
MEW-Kuwait

B101

Implementation of Effective Maintenance Quality Control Function in Saudi Electricity Company (SEC) National Grid (NG)

By: **Mohammad M. AlShareef**
National Grid-Saudi Arabia

B102

Exploring Smart Digital Electrical Substations

By: **Mohamed Elfayoumy**
Hitachi Energy-United Arab Emirates

A103	<p>Improving Grid Stability under High Renewable Penetration: Optimal Flexibility Reserve Provision Using Short-and Long-Duration Energy Storage Technologies</p> <p>By: Gergo Varhegyi EPRI Gulf-United Arab Emirates</p>	B103	<p>Achieving Operational Excellence through Technological Interventions and Data Analytics</p> <p>By: Lalit Kumar Wasan Etihad Water & Electricity United Arab Emirates</p>
A104	<p>Fast and Steady: Coordinated Control of Battery Storage for Renewable Energy Grids</p> <p>By: Hussain Almakrami National Grid-Saudi Arabia</p>	B104	<p>Impact of environmental and loading conditions on Online Power Factor and Partial Discharge Measurements of 132 kV Bushings</p> <p>By: Simon Sutton Doble Engineering United Kingdom</p>
A105	<p>Control Strategy Development for Utility-Scale Battery Energy Storage as a Virtual Power Line (VPL) in the Saudi Arabia Network</p> <p>By: Dr. Yagoob A. Al-Sharief Saudi Electricity Company Saudi Arabia</p>	B105	<p>Abu Dhabi Phase-Shifting Transformer Project: Automatic Parallel Control, Design, and Commissioning</p> <p>By: Muhammad Danish Shaikh Schweitzer Engineering Laboratories, Inc. United Arab Emirates</p>
A106	<p>Leveraging Battery Energy Storage System to Enhance Voltage Stability: A Case Study of Hail South Network</p> <p>By: Mohammad Sulaiman Alrashid Saudi Electricity Company-Saudi Arabia</p>	B106	<p>Strategic Approach for Managing Aged Submarine Power Cables</p> <p>By: Ilias Christou Saudi Aramco-Saudi Arabia</p>
	Q&A (15 min.) LIVE SESSION		Q&A (15 min.) LIVE SESSION
15:00	LUNCH & END OF DAY ONE		
20:00	GALA DINNER SPONSORED BY MEW		

Day Two

Monday 11 November 2025
(20 Jumada al-Awwal 1447)



08:00 – 09:30 - SESSION 2			
TRACK A		TRACK B	
SESSION A2		SESSION B2	
Enhancing Grid Stability and System Reliability		Transformer Design, Manufacturing, Life Cycle and Performance	
Chaired by: Eng. Tarik Al Abri OETC-OMAN		Chaired by: Eng. Fahad Al-Zahrani Saudi Electricity Company Saudi Arabic	
A201	Enhancing Power System Stability through AI-Driven Load Prediction: LSTM vs. Linear Regression in Oman's Power System By: Malik Alshabibi OETC-Oman	B201	Enhancing sustainability for power transformers by using integrated On-Load Tap-Changers By: Marius Poschenrieder Maschinenfabrik Reinhausen GmbH-Germany
A202	Enhancing Grid Stability in the Southern Region of KSA: Lessons from the June 1, 2019 Blackout through Advanced Modeling and PSS Optimization By: Mohamed Ali Berriri GE VERNOVA United Arab Emirates	B202	Recent Advances in the Condition Monitoring and Health Assessment of Ester Filled Transformers By: Bruce Pahlavanpour Ergon International Inc United Kingdom
A203	Enhancing Electricity Demand Forecasting Through Machine Learning Techniques By: Nooreya Sayed Shehab Mahfoodh Bahrain Electricity and Water Authority-Bahrain	B203	Frequency response correlation and validation with routine testing By: Husain Helal Megger-Bahrain
A204	Damaging over voltages in 230kV transformer-ended feeder due to circuit breaker stuck pole operation: case study of 230/13.8kV 60MVA power transformer failure By: Nawaf Alarwi Saudi Aramco-Saudi Arabia	B204	Advanced Vibro-Acoustic diagnostic of Onload Tap Changers based on twin transformers comparison and combined VAM and DRM measurements – Case study By: Sofiane Bakkay OMICRON Electronics GmbH Tunisia

A205	Voltage Stability Enhancement Through STATCOM: A Future Proposal for Qatar By: Sami S Abueida Kahramaa-Qatar	B205	Quantifying the Carbon Footprint of Power Transformers through Life Cycle Analysis and Evaluation By: Ayyoub W. Al Hourani KFUPM-Saudi Arabia
A206	Application Practice of Static Synchronous Condensers (SSC) to Improve the Stability of Transmission System By: Yalin Zhang Sieyuan Electric-China		
	Q&A (15 min.) LIVE SESSION		Q&A (15 min.) LIVE SESSION

09:30	Coffee Break, Exhibition Visits
	Poster Session 1

10:15 – 11:30 - SESSION 3

TRACK A		TRACK B	
SESSION A3		SESSION B3	
Smart Integration of Diverse Energy Sources in GCC Power Networks		Electricity Market Design and Integration of Green Technologies	
Chaired by: Dr. Yousef M. Al-Abdullah KISR-Kuwait		Chaired by: Dr Yannick Phulpin EDF-France	
A301	Integrated Assessment of Green Hydrogen Production from the NAOCL Plant at Doha West Power Station in Kuwait By: Asma Alsallal MEW-Kuwait	B301	Electricity Market Design in the Era of Decarbonization By: Bandar Jubran Alqahtani Saudi Aramco / Power Systems Saudi Arabia

A302	<p>Methodology For Reliability Assessment of Solar PV and CSP Plants with Energy Storage</p> <p>By: Shafique Shahid Mirza Dubai Electricity & Water Authority-United Arab Emirates</p>	B302	<p>Outcomes of WG C5.34 on the integration of electro-mobility in electricity markets</p> <p>By: Anant Venkateswaran CIGRE- WG C5.34</p>
A303	<p>Renewable Energy in the GCC: Mitigating Dust Impact to Boost Solar PV Output</p> <p>By: Mithaq Ateyatalla Sustainable Energy Expert-Bahrain</p>	B303	<p>Impact of EV development on power system economics in the GCC region</p> <p>By: Dr. Marie Petitot KAPSARC -Saudi Arabia</p>
A304	<p>Interfacing Nuclear Power Plants with Electric Grids - The UAE Success Story</p> <p>By: Dr. Ahmed Taha Emirates Water and Electricity Company (EWEC) United Arab Emirates</p>	B304	<p>Particular challenges for EV integration in the GCC region</p> <p>By: Dr. Hidab Hamwi KISR-Kuwait</p>
A305	<p>Renewable Energy Potential in Bahrain - Opportunities, Challenges, and Future Prospects</p> <p>By: Isa S. Qamber Bahrain Society of Engineers Bahrain</p>		
A306	<p>AI for Reliable and Resilient Operations in High Renewable Energy Penetration Systems</p> <p>By: Amer Salman Al Salman National Grid SA / Saudi Electricity Company Saudi Arabia</p>		
	Q&A (15 min.) LIVE SESSION		Q&A (15 min.) LIVE SESSION

11:30 - 12:30	
WOMEN IN ENERGY	NGN PRESENTATION
<p>Session Title: When the Gender Gap Flips: Lessons from Kuwait</p> <hr/> <p>Moderator: Dr. Abeer Almaimouni Electrical Engineering Department, University of Kuwait</p> <hr/> <p>Panelists: Eng. Sara Akbar Chairperson and CEO of OILSERV Kuwait and the Chairman of the Board of OILTECH Iraq</p> <p>Dr. Fotouh Abdul Aziz Al-Ragom Acting as the Science and Technology Director and the Executive Director of the Energy and Building Research Center at the Kuwait Institute for Scientific Research (KISR)</p> <p>Eng. Dina AlNakib Senior Director, Research and Technology Deployment Section , Kuwait Foundation for the Advancement of Sciences</p>	<p>Moderator: Dr. Fahad Alhuwaisheh Abdullah Al Salem University Kuwait</p> <hr/> <p>An Effective dq-based Control Technique for a Grid-Connected Single-Phase PUC5 Inverter</p> <p>By: Eng. Mustafa M. Alhariri KCST University</p> <hr/> <p>Data-Driven Operational Diagnostics and Performance Mapping of a 20 MW Hybrid PV-Wind Installation</p> <p>By: Eng. Ghada Shehada Kuwait University</p> <hr/> <p>Footstep-based Piezoelectric Energy Harvesting via Node Distribution and LTC3588 for Efficient Battery Charging</p> <p>By: Eng. Fatma Abou Elhassan KCST University</p> <hr/> <p>Feasibility and Potential of Advanced Copper Recovery From High Voltage Cables in Kuwait</p> <p>By: Eng. Bedour AlSayegh MEWRE</p>
12:30	Prayer Break, Exhibition Visits
	Poster Session 2

13:30 – 15:00 - SESSION 4			
TRACK A		TRACK B	
SESSION A4		SESSION B4	
Innovative Approaches to Power System Development in the GCC Region		Advancements in Distribution Systems and DER / EV Integration	
Chaired by: Mr. Hilal A. Salim AL Nasiri OETC-Oman		Chaired by: Eng. Abdulrahman Al Dderham KM-QATAR	
A401	Cost-Effective Grid Congestion Management using Battery-based Energy Storage Systems By: Mohamed Abido King Fahd University of Petroleum & Minerals Saudi Arabia	B401	Enhanced Host Assessment of GIS & AMI/MDM Integration-Based Simulation Tools & RTDS for Distributed Renewables & EV Chargers by Electric Utilities - A Case Study of EWA, Bahrain By: Ali Salman Ali Salman Electricity & Water Authority (EWA)-Bahrain
A402	Reliability-Driven Approach for Evaluating Power Supply Redundancy for Oil Fields By: Lina Bahumayshan Saudi Aramco-Saudi Arabia	B402	Improvement of ground resistance by developing the detection and measurement of relation between EM susceptibility and high soil resistivity By: Khalid Ayid Shatwi Saudi Electricity Company-Saudi Arabia
A403	Demand Response Programs for Efficient Balancing: Concepts, Benefits, and Opportunities for the GCC region By: Marie Petitot KAPSARC-Saudi Arabia	B403	Simulation-Based Analysis of the Impact of Ambient Temperature on Electric Vehicle Battery Performance in Qatar By: Hazem Kasem Texas A&M University at Qatar
A404	National Grid SA Experience for Enhancing System Inertia and Fault Levels with High Renewable Energy Sources Penetration By: Hussein M Basha Saudi Electricity Company Saudi Arabia		

A405	Technology Prioritization for GCC Power System Expansion: A Data-Driven Multi-Criteria Decision Approach to Net Zero transition By: Abhishek Kar Siemens-United Arab Emirates	B404	Lightning Protection Solutions of Overhead Distribution Lines and Equipment Utilizing Streamer arrester discharge with new model structures By: Mohammed Rafiq Ali Tiro Saudi Electricity Company-Saudi Arabia
		B405	The Role of Smart Grid in Enhancing Reliability and Resilience in Power Distribution System Through Self-Healing Capabilities, Distribution System Network of Nama Dhofar Services as A Case Study By: Said Salim Ahmed Al Mashaikhi Nama Dhofar Services-Oman
		B406	Extending Transformer Lifespan through Static Phase Balancing in LV Networks By: Urban Kuhar Dewesoft d.o.o.-Slovenia
	Q&A (15 min.) LIVE SESSION		Q&A (15 min.)
15:00	LUNCH & END OF DAY TWO		
16:00	GCC CIGRE BOARD MEETING		

Day Three

Monday 12 November 2025
(21 Jumada al-Awwal 1447)



08:00 – 09:30 - SESSION 5			
TRACK A		TRACK B	
SESSION A5		SESSION B5	
AI and Smart Grids: Innovative Approaches to Monitoring and Energy Efficiency		Novel Techniques in Substation Automation and Protection	
Chaired by: Eng. Mohamed Y. Al-Kubaisi KM- Qatar		Chaired by: Eng. Khaled Al Ameri TAQA-UAE	
A501	Artificial Intelligence in Predictive Maintenance: A Holistic Approach to Electrical Equipment Monitoring By: Saad Mohammed Albreak National Grid-Saudi Arabia	B501	Novel Fault Detection Technology for High Voltage Submarine Cables By: Mohammed Ibrahim Ali OMICRON Electronics-Bahrain
A502	Application analysis of fgOTN in electric power communication network By: Zhiqiang YIN Huawei Technologies Co., Ltd. Qatar	B502	Introduction of Phase Shifting Transformers in Abu Dhabi Network: Advanced Protection, Control Strategies and Key Experiences By: Murali Kandakatla TAQA-Transmission United Arab Emirates
A503	Machine Learning-Based Smart Meter Data Analysis for Fault Detection and Tampering Identification in Oman By: Alaa Al Kiyumi Nama Electricity Distribution Company-Oman	B503	The Effect of Inverter-Based Resources on the Short Circuit Level and Protection Relays Pickup Settings By: Mohammed Saleh Alghamdi National Grid-Saudi Arabia
A504	Developing Sustainable System for Future Data Centers By: Abdullah Ayad Alharbi Aramco-Saudi Arabia	B504	Standardizing Signal Lists, SCL Engineering, and Testing Processes Throughout the System Lifecycle of Substation Automation Systems By: Mohammed Khamis Aloufi OETC-Oman

A505	Advanced Metering Infrastructure (AMI) National Project: Modernizing Distribution Networks and Harnessing the Power of Integration in the Big Data Era By: Khalfan Al Burtamani Nama Electricity Distribution Company-Oman	B505	Experience of implementing a full digital substation in the Middle East By: Rajesh Ananth Kumaresapandian GE VERNOVA United Arab Emirates
A506	Gas-Fired IPPs in the Era of Growing RES Investment By: Maryam Al-Aali KAHRAMAA-Qatar	B506	AI-Driven Enhancements in Protection Systems for Power Transmission By: Ebraheem Al-Mufarrej MEW-Kuwait
	Q&A (15 min.) LIVE SESSION		Q&A (15 min.) LIVE SESSION

09:30	Coffee Break, Exhibition Visits
	Poster Session 3

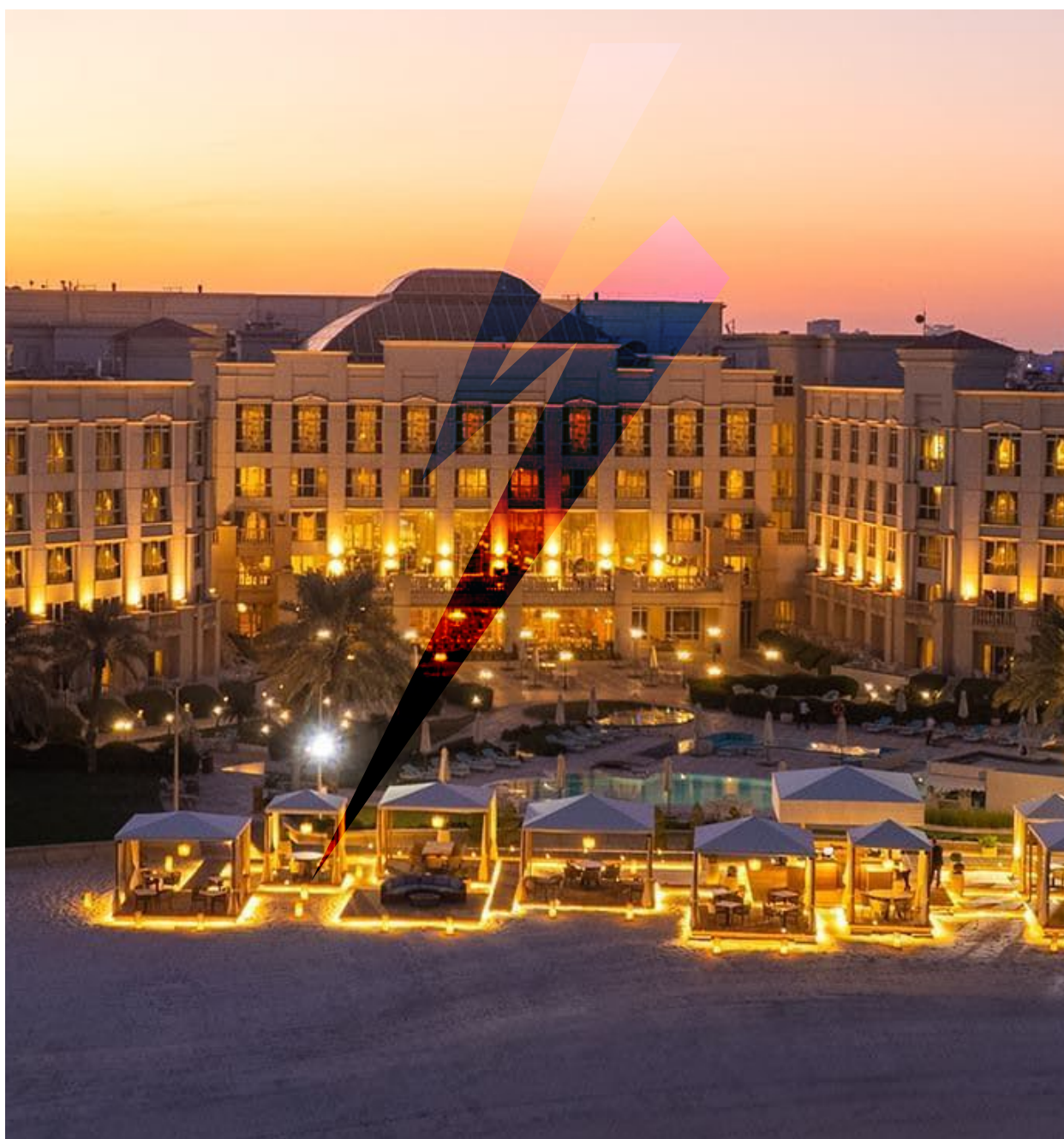
10:30-12:00 - SESSION 6

TRACK A		TRACK B	
SESSION A6		SESSION B6	
Advanced Techniques for Overhead Line and Cables Protection		Smart and Sustainable Grid Solutions: HV Equipment, Substations, and Flexible AC/DC Technologies in the GCC Region	
Chaired by: Eng. Mohammad Al Marri MEW- Kuwait		Chaired by: Eng. Kamel Al-Shehabi Bahrain	
A601	Overhead Line Protection and Fault Diagnosis for Critical Energy Infrastructure: A Practical Approach for Oil and Gas Facilities By: Sama Al-Mubarak Saudi Aramco-Saudi Arabia	B601	A Novel Approach for Substation Monitoring, Control and Protection Low Voltage DC Power Transfer Eliminating Copper Cables By: Balaji Venkatesan GE Vernova-India

A602	<p>Condition Assessment and Lifetime Strategy Program for High Voltage Land and Submarine Cables in the Oil and Gas Industry</p> <p>By: Haitham Al Arfaj Saudi Aramco-Saudi Arabia</p>	B602	<p>Advancing Composite Insulators for Reliable and Sustainable Power Grids Worldwide</p> <p>By: Eric Moal Independent Expert-France</p>
A603	<p>Transmission capacities in AC vs DC cable systems</p> <p>By: Alwin Paul Prysmian Cable Sytems United Arab Emirates</p>	B603	<p>Online PD monitoring of transmission assets and its benefits at TAQA Transmission</p> <p>By: Rejimon Rasheed TAQA Transmission United Arab Emirates</p>
A604	<p>Investigation of Defect Insulation Systems with Deferent Artificial Cavities Consisting of High Voltage Power Cable</p> <p>By: Mustafa Mukhtar Hassanein Ahmed Saudi Electricity Company - National Grid (SEC)-Saudi Arabia</p>	B604	<p>Ensuring Accurate Power Quality Measurements in Modern Electrical Grids: Assessing the Wideband Performance of Inductive Voltage Transformers</p> <p>By: Anas Abdulkhader OMICRON Electronics MEA United Arab Emirates</p>
A605	<p>Research and Application of Long-Life Composite Insulators and Compact Line Solutions in Extreme Harsh Environments</p> <p>By: Héctor De Santos Shemar-Spain</p>	B605	<p>Technical Considerations of Grounding Grid Design Calculation for FACTS and HVDC Projects</p> <p>By: Basem M. Alsuhaibani Saudi Electricity Projects Development Company Saudi Arabia</p>
		B606	<p>DC Faults and Protection Strategies for HVDC systems with Overhead Transmission Line</p> <p>By: Hani Al Khazim National Grid-Saudi Arabia</p>
	Q&A (15 min.) LIVE SESSION		Q&A (15 min.) LIVE SESSION

12:00	Technical Team Meeting
	Prayer Break, Exhibition Visits
	Poster Session 4

13:30 - 14:15 CLOSING SESSION	
13:30 – 13:35	CIGRE GCC Chairman Closing Statement
13:35 – 13:45	CIGRE GCC Secretary General Announcements
13:45 – 14:00	Technical Committee Chairman Remarks & Recommendations and best Papers Award Announcement
14:00- 14:15	Honoring committees & Distinguish Members
14:15	Closing and Lunch - End of Conference



POSTER SESSIONS

10 – 12 November 2025

19 – 21 Jumada al-Awwal 1447



09:30 - 10:15

POSTER SESSION 1

P101.	Experiences with implementation of an asset performance (APM) management tool at TAQA Transmission By: Vinoth Kumar Subramani-TRANSCO-United Arab Emirates
P102.	Practical Implementation of Two-Dimensional Transformer Fleet Management Approach based on an example of a German Utility By: Dr. Alexei Babizki Maschinenfabrik Reinhausen-Germany
P103.	Enhancing Predictive Maintenance of 11kV Distribution Networks: Offline Partial Discharge Testing Using Damped AC Signals By: Mohamed Alhayki Megger Limited-Bahrain
P104.	Digital Twins Applied to Power Grids By: Jean-Pierre Girard P. HEXACODE Solutions-Canada
P105.	Advancing Transformer Diagnostics: A Statistical Analysis of a Publicly Available DGA Database By: Mohamed Barhdadi Texas A&M University-Qatar
P106.	Real-time Monitoring of a Lightning Arrester using online Partial Discharge (PD) Measurements and its Correlation with Third Harmonic Leakage Current Analysis By: Umesh N Soni Electrical Research And Development Association-India
P107.	Application of Dissolved Gas Analysis for Fault Identification in Natural Ester Oil Filled Power Transformers: A Case Study By: Manjusha S. Nambiar Electrical Research and Development Association (ERDA)-India
P108.	Residual life estimation techniques, risk assessment based on fault level data and guidelines for replacement or refurbishment based on asset utilization curve By: Vikas Singh Damodar Valley Corporation (DVC)-India

12:30 - 13:30

POSTER SESSION 2

P201.	Decision tree optimization for distribution network planning: a case study By: Yazan Qiblawey Iberdrola Innovation Middle East-Qatar
P202.	Simulation Of Rcc-Ground Fault Neutralizer (Rcc-Gfn) Grounding System For Distribution Networks To Enhance The System Reliability Using Pscad Software By: Arun Jeyakumar Dar International for Engineering Consultancy-India
P203.	Enhancing MPLS-TP Security: Future-Proofing Grid Communications Against AI-Driven Cyber Threats and Post-Quantum Risk By: Mahmoud Zakaria GE Vernova-Saudi Arabia
P204.	Singular fault patterns created by Inverter Based Generation and their influence on line protection By: Roberto Cimadevilla ZIV-Spain
P205.	Technical requirements in design, Installation & power system automation for the Mobile Sub-station in projects (A case study) By: Yogesh M Patil Saudi Aramco-Saudi Arabia
P206.	Non-invasive PD monitoring system using a deep neural network (DNN)-based sound event recognition algorithm By: ByeongYun Ko KAIST-South Korea
P207.	Mitigating transformer fires by using an underground oil holding tank By: Ahmed I.M. Musa SRACO-Saudi Arabia
P208.	Frequency Regulation for Low Inertia Power System with High Penetration of Photovoltaic System By: Khaled Maitah Electricity Distribution Company-Jordan

P209.	<p>Accelerating Renewable Energy Adoption in Kuwait Through Policy Framework</p> <p>By: Dr. Rashid A. Al Shatti Kuwait Institute for Scientific Research-Kuwait</p>
P210.	<p>Feasibility Analysis and Economic Viability of Offshore Wind Farms in Kuwait</p> <p>By: Abdullah S Al Otaibi Public Authority for Applied Education and Training, Higher Institute of Energy-Kuwait</p>

09:30 - 10:30

POSTER SESSION 3

P301.	<p>Design of a Hybrid Solar PV–Wind–Storage System for High Voltage Substation Support in the Kingdom of Saudi Arabia</p> <p>By: Mounir Bouzguenda King Faisal University-Saudi Arabia</p>
P302.	<p>Renewable Energy Integration in India: Challenges, Grid Disturbances, and Mitigation Strategies</p> <p>By: Pankaj Kumar Jha Power Grid Corporation of India Ltd.-India</p>
P303.	<p>Secure Microgrid Communication: A federated deep learning approach for Network Intrusion Detection in Microgrids connected over IEC-60870-5-104 protocol</p> <p>By: Sajath Ponpuram Sathar Hitachi Energy-Qatar</p>
P304.	<p>The role of artificial intelligence in the maintenance of assets for transmission stations to enhance the efficiency of electricity networks in the Gulf States</p> <p>By: Abdulsalam Khadan Dayes Al Marei National Grid-Saudi Arabia</p>
P305.	<p>Smart Testing for Smart Grids: Digital Twins in Relay Protection</p> <p>By: Mohamed Ibrahim Ali OMICRON Electronics-Bahrain</p>

P306.	<p>HVDC Transmission Relaying Strategies: advanced protection schemes and challenges</p> <p>By: Mohammed Hussien Hassan Musa Saudi Electricity Company-Saudi Arabia</p>
P307.	<p>Experimental Studies on Jordan's power grid stability with integrated electricity storage systems</p> <p>By: Abdallah Al-Hayajneh SEPCO - Jordan</p>
P308.	<p>Voltage Regulating Distribution Transformers (VRDTs): Enabling Grid Flexibility for Achieving Net-Zero in the GCC</p> <p>By: Waqas Hussain Maschinenfabrik Reinhausen-United Arab Emirates</p>
P309.	<p>Long-Term Dimensional Stability of Cold Shrink MV Cable Joints Using LSR Under Simulated Storage Conditions</p> <p>By: Mohammed ALy Khalil Askar Bahra Electric-Saudi Arabia</p>
P310.	<p>Integration Challenges and Ancillary Service Contributions of Grid-Forming Inverters</p> <p>By: Mohamed Elsayed KAHRAMAA - Qatar</p>

12:00 - 13:30

POSTER SESSION 4

P401.	<p>Considerations in The Design of Islanding and Load Shedding Control Systems at Oil and Gas Processing Facilities</p> <p>By: Abduljaleel Almutawah Saudi Aramco-Saudi Arabia</p>
P402.	<p>Conceptual Design of Power Infrastructure for a Large-Scale Crude Oil Development: Grid Integration, Stability, and Reliability Considerations</p> <p>By: Jerry Su GE Vernova International LLC-United Arab Emirates</p>
P403.	<p>BESS based LVRT feature implementation in Grid Connected PV System</p> <p>By: Asheesh Dhaneria Electrical Research and Development Association-India</p>

P404.	<p>Assessing rate of change of frequency and inertia limit in a real power system with high variable renewable energy and storage penetration: a case study of Northeast Saudi Arabia</p> <p>By: Dr. Abdelaziz Salah Saidi National Grid Company - Grid Studies Dep. Central Operation Area, Saudi Arabia</p>
P405.	<p>Control Philosophy for Variable Shunt Reactors in High Voltage Submarine Cable Systems for Offshore and Onshore Substations</p> <p>By: Nagaraj Neradhala Dar International for Engineering Consulting-Saudi Arabia</p>
P406.	<p>Artificial Intelligence Techniques for enhancing Load Forecasting</p> <p>By: Abdelrahman Alheyasat NEPCO-Jordan</p>
P407.	<p>Effects of MVARs in large interconnected Electrical Networks between Utility and Consumer Plants</p> <p>By: Mohammad Atif Saudi Aramco-Saudi Arabia</p>
P408.	<p>Performance analysis of grid forming inverter with different control strategies</p> <p>By: Khaled Maitah Electricity Distribution Company-Jordan</p>
P409.	<p>Comprehensive Review of Global Grid Codes for Power System Operators</p> <p>By: Jamshed Saleem GCCIA-Saudi Arabia</p>
P410.	<p>Challenges and Recommendations for Replacing LOPF with XLPE Cable in Electric Utilities</p> <p>By: Abdullah Al Tarooti Saudi Electricity Company-Saudi Arabia</p>

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