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Reference: **SESSION\_2022\_C2**

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Type:

**Session Materials**

Title:

**Session 2022 - SC C2 Package**

[Session registration account](#)

## Contents:

### Videos

#### General

- **Opening Ceremony**
- **Opening Panel**
- **Next Generation Network forum**
- **Women In Energy forum (2 videos)**

#### SC C2

- **Group Discussion Meeting 1**
- **Group Discussion Meeting 2**
- **Workshop C2-C5 - Large disturbances**
- **Tutorial - TSO-DSO Cooperation Control Centre Tools Requirements**

### Documents PDF

#### Session Papers & Posters

- **10159** Brazilian Power System Operation Under Extreme Operating Conditions - Recent Examples and Proposals to Face Future Challenges
- **10160** Brazilian Interconnected Power System - Implementation of Wind Power Farm in

## Restoration Process: Practices and Experience

- **10161** Brazil's Embedded HVDC Systems – Operation Planning Challenges
- **10198** Operational Metering, forecast & validation of effective Area Inertia
- **10199** Development and validation of new organisational Models and Systems for DER led Restoration
- **10200** Inertia Measurements in the GB Power System used for operations and planning Improvements
- **10224** Automated System-wide Event Detection and Classification Using Machine Learning on Synchrophasor Data
- **10228** Approach to Distribution PMU Placement and Observability Analysis
- **10230** A KDE-based Methodology for PMU Data Management and Real-time Event Detection
- **10352** Potential and challenges of AI-powered decision support for short-term system operations
- **10402** Wide-Frequency Measurement Technology for Power Electronics- dominated based Power Systems
- **10405** Challenges and Countermeasures on Operational Planning with High Penetration of Renewable Energy Sources: Chinese Experience and Prospect
- **10408** Influence of the Fault Ride-Through Control Strategy of Wind Turbines on the Transmission Power of UHVAC/DC
- **10426** Challenges And Responding To The Booming Of Renewables In Vietnam's Power System
- **10427** Low Demand Operation of a Grid with High Share of Inverter-Based Resources - South Australian Case Study
- **10479** Experience of development and implementation of SOMS (System Operation Management Software)
- **10481** Reactive Power Management and Other Challenges with High Renewable Penetration: Case study of Indian grid
- **10482** Impact of Silt on Hydro Stations of Northern part of Indian Power System and Enhancing the Resilience in Grid Operation through near Real Time Silt Monitoring
- **10484** A tool to detect Low frequency power system oscillations in real time using PMU data
- **10487** Implementation of New Dispatch Formulation and Software for Tertiary Frequency Control Reserves in Indian Power System
- **10488** Evolution of Renewable Energy Monitoring Centre in Southern Regional Grid: Experience through Data, Forecasting and Challenges
- **10548** State Estimation in Medium Voltage Distribution Networks using Pseudo Measurements
- **10550** Synchrophasor-based Applications to Enhance Electrical System Performance in the Netherlands
- **10554** Transition to a new regional coordination framework
- **10559** Development of Dispatching Monitoring and Control Technology in Russia Based on PMU Data
- **10565** Nonparametric Identification of Events in the Western Siberia Power System Based on Big Data Processing of PMU
- **10579** Re-establishing Functional Observability in a Control Center under Total Loss of Normal Communications using Time-series Clustering
- **10635** Applying Big Data Analytics to Demand Forecast in Island Power Systems towards Large Installation of Renewable Energy

- **10636** Development of New Integrated Stability Control System for Photovoltaics Introduction Expanding Grid Utilizing Artificial Intelligence
- **10680** Prediction of possible power system blackout risk with machine learning algorithms
- **10711** Smart Grid Flexibility Solutions for Transmission Networks with Increased RES Penetration
- **10787** Wide Area Monitoring and Protection System for interarea oscillations suppression in the Italian power system
- **10791** Islanded Operation of the HV/MV network: a Dynamic Study based on a Real-Life Experiment Data
- **10798** Quantifying the impact of Synchronous Inertial Response and Fast Frequency Response to Frequency Stability for high share of Renewables in HVDC interconnected Jeju system
- **10873** Development of Innovative Power Flow Controller-compatible RTCA Decision Support Tools for Enhancing Control Centre Operations
- **10913** Transient stability enhancement through the control of embedded HVDC transmission systems. Grid2030 RITSE project
- **10916** Year-ahead operational planning in an evolving system through multi-situation methods
- **10942** Practical experience of using fully automated centralized voltage regulation in transmission system
- **10954** Technical, Regulatory and Economic Development for Distributed Flexible AC Transmission Systems – D-FACTS
- **10985** Resilience Enhancement Applications in Operational Planning and Control for the TSO of Serbia
- **10986** Deep Learning Application for Power Generation Forecasting of VRE in Thailand
- **10987** Demonstration Project of Low Carbonization and Advancement by Online Optimized Control of Transmission System Voltage and Reactive Power utilizing ICT
- **11005** Handling intra-zonal constraints in the upcoming European balancing Markets
- **11032** New voltage control service and VOLTAIREE project
- **11034** Testing of Power Oscillation detection algorithm using a Real-Time PMU laboratory
- **11098** Training platform for proof of future dispatcher tools
- **11100** Ad-Hoc Determination and Activation of Remedial Actions in Electro-Thermal System Operations
- **11128** Machine Learning Using PMU Data to Predict Small Signal Disturbances
- **11150** Simulator-based operator training on power system operating procedures
- **11151** Topology Optimization of Power Network with Renewable Energy Sources Based on an Adapted Genetic Algorithm
- **11152** Black-Start Network Restoration using Offshore Wind Power with AC cables

### Workshop

- **Workshop C2-C5** - Large disturbances

### Tutorial

- **Tutorial** - TSO-DSO Cooperation Control Centre Tools Requirements

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- **Session 1** - Energy Transition on Power Equipment
  - **Session 2** - Changes in Planning and Design of Transmission and Distribution Systems
  - **Session 3** - Re-designing regulatory & market tools considering sector coupling scenarios

## General Report C2

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More Informations :

**File Size:**123,6 MB **Study Committee :** C2 **Year:**2022

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