# 2021 OkIP International Conference on Advances in Power and Energy (CAPE)

Monday, 15 November 2021 - Thursday, 18 November 2021

MNTC Conference Center & Online

## **Scientific Tracks**

#### **Energy Generation/Storage**

Storage Technologies/Deployment/Economics Nuclear | Hydrogen | Fuel Cell-based Systems Energy Harvesting/Generation | Inverters Biofuel/Biomass Generation | Geothermal Circuitry for Energy Harvesting/Scavenging **HVAC Systems | Transformers Energy System Operational Strategies** Energy Carriers/Distribution/Consumption Hybrid Battery/Super Capacitors | Short-Circuit DC-AC Converter and Battery Storage System Uninterruptible Power Supply | Power supplies Demand/Conservation/Supply/Policy Clean/Future Energy | Natural Gas | Recycling Optimization/Consumption/Conversion Balance/Reliability/Strategy/Flow Utilization/Complementation | Mobile Storage Distributed Systems | Generation Capacity Distributed/Hybrid/Optimal Generation Liquid Air/Offshore Generation/Storage

#### **Power/Energy Systems**

Usage | Conservation | Management | Pervasive Services | Power Security/Stability Efficiency | Quality and Filtering Techniques Planning and Forecasting | Efficient Lighting Operational Strategies | Distribution Issues Advanced Metering Infrastructure | Converters Generation Technologies and Power Apparatus Operation | Distributed Systems Control Method/Techniques | Nuclear Station Optimization | Reliability | Transmission Lines Quality Monitoring and Mitigation | Security Converters Technologies/Topologies | Safety Power Electronics in Complex Systems Quality-Issues/Supplies | Condition Monitoring Integration/Packaging/Thermal-Management Power Devices/Driving Circuits | Compensation Performance Analysis | Vulnerability | AC/DC New Trends/Technologies | Policy | Strategy Future Challenges and Directions | Maintenance Hard/Soft Switching Techniques | Protection Asset Management | Wide-Area Systems Signal-Processing/IT/Computing in Power

### **Grid & Electrical Vehicle (EV)**

Micro/Nano Grids | Smart Grid Technologies Station/Substation Protection | Dispatch Mode Hybrid/Multi Microgrids | Grid Modernization Smart Grids/Microgrids/Meters/Appliances Grid-Interactive Systems | Grid Resiliency Battery Charging Technologies/Systems Battery Materials/Mechanisms/Management Contact/Contactless Battery Chargers Electric/Hybrid Vehicles | Distribution Grids Vehicular Technology Energy Saving EVs Components/Grid-Interactions | Safety Electric-Propulsion/Drive Systems | Weak-Link Fault Coordination/Protection of Grids Grid Resiliency/Integration/Interfacing/Control Cyber and Physical Security of Power Grid Grid Internet of Things/Everything (IoT/IoE) Power Fluctuation | Dispatch Mode | Adequacy

#### IA in Power/Energy

Big-Data | Machine Learning | Data Analytics Deep Learning Model | Evolutionary Algorithm Estimation/Identification Methods Measurement Control/Techniques Motion Control | Robotics | Special Drives Factor/Disturbance Correction Techniques Decision Support Systems | Topology Control Frequency Control/Normalization Fault/Voltage Diagnosis/Control | Measurement Predictive Model | Network Analysis Line Monitoring/Inspection | Decarbonization Emergency/Flow/Power-Outage Management Anomaly Detection/Mitigation | Efficiency Multi-Machine Systems | Smart Ballasts Computational Methods | Damage Prevention Impedance-Model/Frequency Scan Analysis

#### Renewable/Sustainable Energy

Wind Farm | Novel Energy Conversion Studies Renewable Energy (RE) Evolution/Integration RE Systems Management/Awareness/ IoT RE Systems Education | Energy Internet Wind Hydropower | Solar Energy | RE Market Biomass/Biofuel | RE Transmission/Storage Geothermal/Wave/Tidal Energy | Wind Power Energy-Efficient Protocols/Data-Centers RE Distribution/Wireless/Cellular Network Electric Machinery/Control Energy Saving Green IT/Computing/Communication Power/Energy Legal/Social/Economic Issues Virtual Power Plant | Storage System Electricity Market/Policy/Regulatory Aspects

Saturday, 17 May 2025

Solar Radiation Forecasts | Greenhouse Gas Regenerative Power | PV Module Performance Energy Saving/Surplus Power | RE Reliability