2024 OkIP International Conference on Advances in Power and Energy (CAPE)

Tuesday, 1 October 2024 - Thursday, 3 October 2024

Tiako Center, Oklahoma City, OK, USA & 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| Automation | 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

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