2025 OkIP International Conference on Energy and Sustainable Technologies (CEST)

Tuesday, 1 April 2025 - Thursday, 3 April 2025

Tiako Center, Oklahoma City, OK, USA & Online

Scientific Tracks

Green Generation/Management

Energy Management/Storage/Recycling
Electric/Hybrid Vehicles | Green Energy Boost
Hydrogen, Fuel cells, Energy Carriers
Energy Harvesting | Biofuel Generation
Wind/Geothermal Power | Efficient Lighting
Solar/Biomass Energy | Efficient Power
Combustion Fuels and Renewable Sources
Uninterruptible Power Supply
Grid-Oriented Energy Systems
Circuitry for Energy Harvesting/Scavenging
Energy Reduction/Conservation
Innovative HVAC Systems | Photovoltaic Cells
Power Quality/Filtering Techniques
Energy System Operational Strategies
Advanced Metering Infrastructure
Power Distribution Grids | Hydropower
Sustainable School/Education
Battery Materials/Mechanisms/Optimization
Pervasive Energy Services
Other

Sustainable Designs/Innovations

Strategies for Sustainability
Performance Evaluation | Wearable Electronics
Green Building-Components/Systems-Mngmt
Efficient Circuit Design for Energy Harvesting
Ergonomics and Sustainability
Building and Low Environmental Impact
Sustainable Building Design/Construction
Home and Commercial Automation
Ocean-Wave/Under-Water Energy Harvesting
Energy-Efficient Renovation
Clean Energy Architectural Solutions
Other

Smart Systems/Infrastructures

Smart Construction/City/Vehicle
Grid Modernization | Efficient Wind Turbines
Digital Communication and Control
Evolution/Integration of Renewable Energy
Reduction of Emission Energy Sources
Smart Grids/Microgrids/Meters/Appliances
Internet of Things (IoT) and Sustainability
Smart Energy Management Systems
Smart Urban Development
Intelligent Transportation Systems

Smart Manufacturing/Factory
Unmanned Aerial Systems and Sustainability
Other

Legal/Social/Economic Sustainable/Energy Issues

Emerging Standards | Ecosystem Monitoring
Carbon footprints and Metering
Reduced Carbon Emission | Climatic Data
Regulatory Issues and Standards
Safety and Protection of the Environment
Developed/Emerging Country Tech./Issues
Spill Prevention and Control
Deregulation and Electric Power Market
Climate Change | Renewable Energy Sources
Green Business Practices | Airborne Substances
Environmental Pollution Issues
Ecosystem Modeling | Green Protocols
Nuclear and the Environment
Other

Green IT/Computing

Energy-efficient Protocols and Networking
IT de-Manufacturing | Disaster Control
Legitimate IT Recycling | Sustainable Software
Energy Efficient IT solutions & Algorithms
Green Software Design/Development
Energy Efficient Algorithms
Sensor Networks Usage | Sustainable Big Data
Network Concepts | Efficient Data Centers
Climate and Disaster Monitoring
AI & Expert Systems for Sustainability
Optimization techniques for energy applications
Green Cloud/IoT/Communication Technologies
Energy-Efficient Data-Centers/Networks
Energy-Efficient Machine Learning Approach
Other

Biomedical/Biotechnology

Digital Health/Wellness
Advances in Pharmaceutical-Industry/Imaging
Environmental Protection | Biodegradation
Portable Medical/Biomedical Devices
Chemical/Agro-Chemical Safety
Devices for Disabled/Handicapped
Marine Microalgae Harvesting | Detoxification
Biodiesel Production/Agricultural Crop
Electrochemistry Renewable Fuel

Pollution Biodegradation | Soil Contamination
Organic Photovoltaic Cells | …
Other

Forecasting/Water/Sanitation

Forecasting Techniques and Predictions
Weather Analysis | Life/Property Protection
Societal impacts of weather | climate monitoring
Weather Accessibility and Understandability
Water Systems and Sustainability
Sanitation/Water supply| Sinkhole Identification
Gaseous Benzene Remediation
Other

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
Other

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
Other

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
Other

IA in Power/Energy/Sustainability

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
Sustainable AI
AI in Energy Grids/Agriculture
AI in Sustainable Supply Chains
AI in Environmental Monitoring/Enforcement
AI for Enhancing Weather/Disaster Prediction/Response
Other

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
Other