ORAL SESSION

Session Topic 1： Energy Management and Trading in Active Distribution Networks

Date: Oct. 27, 2024

Room: 713 Meeting Room

Time: 08:00-09:50

Session Topic 2：Analysis and Control for the Power-Electronic-Based Power System

Date: Oct. 27, 2024

Room: 713 Meeting Room

Time: 10:10-12:00

Session Topic 3：Power Electronic Devices, Transmission Control, and Energy Storage

Date: Oct. 27, 2024

Room: 715 Meeting Room

Time: 08:00-09:50

Session Topic 4： Artificial Intelligence, Big Data, and Machine Learning for Cyber-Physical Power Systems

Date: Oct. 27, 2024

Room: 715 Meeting Room

Time: 10:10-12:00

Session Topic 5：Energy Systems with Electric Vehicle Prospects and Network Interaction

Date: Oct. 27, 2024

Room: 716 Meeting Room

Time: 08:00-09:50

Session Topic 6：Renewable Generation, Distributed Energy Resources and Multi-energy Systems A

Date: Oct. 27, 2024

Room: 718 Meeting Room

Time: 08:00-09:50

Session Topic 7：Power Electronic Devices, Transmission Control, and Energy Storage B

Date: Oct. 27, 2024

Room: 718 Meeting Room

Time: 10:10-12:00

Session Topic 8：Demand Side Management and Emerging Technologies in End-User Systems

Date: Oct. 27, 2024

Room: 716 Meeting Room

Time: 10:10-12:00

Session Topic 9：Electrical Machines and High Voltage Technology with FACTS

Date: Oct. 27, 2024

Room: 810 Meeting Room

Time: 08:00-09:50

Session Topic 10：Grid Resiliency and Reliability in Power and Energy Engineering

Date: Oct. 27, 2024

Room: 810 Meeting Room

Time: 10:10-12:00

Session Topic 11： Planning, Operation, Control and Modelling of Power and Energy Systems A

Date: Oct. 27, 2024

Room: 811 Meeting Room

Time: 08:00-09:40

Session Topic 12： Planning, Operation, Control and Modelling of Power and Energy Systems B

Date: Oct. 27, 2024

Room: 811 Meeting Room

Time: 10:00-11:40

Session Topic 13： Future Energy Systems: Microgrids, Standalone Power Systems, and Virtual Power Plants

Date: Oct. 27, 2024

Room: 815 Meeting Room

Time: 08:00-09:40

Session Topic 14：Power Electronic Devices, Transmission Control, and Energy Storage

Date: Oct. 27, 2024

Room: 815 Meeting Room

Time: 10:00-11:40

Session Topic 15：Electricity Market and Power System Protection and Monitoring

Date: Oct. 27, 2024

Room: 816 Meeting Room

Time: 08:00-09:50

Session Topic 1:

Energy Management and Trading in Active Distribution Networks Chairs: Yu Liu, Lilin Cheng 08:00-09:50, Oct. 27, 2024 713 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
24	Shukang Lv	Electric Power Research Institute State Grid Jiangsu Electric Power Co. Ltd	Multi-Level Linked Voltage Regulation Optimisation Strategy for Distribution Networks Considering Active-Reactive Regulation Characteristics of Electric Vehicles
279	Zekai Ding	Hohai University	Fault recovery method for DG-containing distribution networks taking into account load forecasting
312	Xiaoxiao Meng	Hefei University of Technology	Analysis of Stable Operation Domain for the Multi- Terminal Low Voltage DC System Considering PLL Nonlinearity Dynamics
507	Xianen Zong	State Grid Anhui Electric Power Research Institute	Analysis and Comparison of Optimization Effects of Inverter Voltage Control Strategies in Distribution Network
554	Zhigang Ye	Jiangsu Electric Power Testing and Research Institute Co. Ltd	Active and Reactive Power Coordinated Optimal Dispatch for Distribution Networks with High Penetration of Distributed PVs
11	Chaojie Li	UNSW	Online Masked Transfer Learning with Cell State Enhanced LSTM: Application in Photovoltaic Power Forecasting and data completion
47	Hongqiao Peng	Planning Research Center of Guangdong Power Grid Corporation CSG; Power Dispatching and Control Center CSG	Long-term Regional Hourly Net Load Profile Generation with Behind-the-meter PV

70	Chao Wang	School of Electrical Engineering, Northeast Electric Power University	Ultra-short-term wind power prediction model based on Kepler optimization algorithm optimizing gated recurrent unit hyperparameter
332	Xiangxiang Zhao	School of Electrical and Power Engineering, Hohai University	PLSR Model-based Installed Capacity Forecasting of Renewable Energy in Northwest China
441	Hanjiang Dong	South China University of Technology	Soft Dynamic Time Warping Neural Networks for Electric Vehicle Charging Station Load Forecasting
27	Zhixiang Yang	Hunan University	State of Health Estimation of Microgrid Energy Storage Batteries Based on An Improved Temporal Convolutional Network

● Session Topic 2:

Analysis and Control for the Power-Electronic-Based Power System Chairs: Hejun Yang, ChuyangWang 10:10-12:00, Oct. 27, 2024 713 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
89	Kai Hou	NARINanjing Control System Co., Ltd.	Finite-Set Model predictive control based on optimal switching sequence strategy for Grid-forming inverter
186	Lihui Zhang	School of Electrical and Electronic Engineering, Huazhong University of Science and Technology Wuhan, P. R. China	Estimating the Critical Clearing Time of Grid Forming Inverter via Lyapunov's Energy Functions
228	Chuyang Wang	College of Electrical and Power Engineering Hohai University	Grid-forming Control based on MMC-UPFC and its Multi-mode Switching Strategy
406	Shu Wang	NARI Technology Company , LTD.	Synergetic Virtual Inertia Control of AC-Excited Variable Speed Pumped Storage and Renewable Energy Sources for Grid Frequency Support

414	Yang Zhou	Changsha University of Science and Technology	Deep Reinforcement Learning-Based Additional Damping Control for Grid-Forming HVDC Power System
429	Hongwei Zhou	TBEA Xi'an Electric Technology Co., Ltd.	An Improved Frequency Feedforward Control for the Grid-Forming Converter
470	Lingyu Du	Shanghai Jiao Tong University	Power Leverage Mechanism Based Energy Management for Hybrid AC/DC Microgrids Cluster
572	Qingzuo Meng	Shanghai Jiao Tong University	A Trilateral Inertia Supporting Scheme for Hybrid AC/DC/DS Microgrids
60	Fang Liu	Puyang Power Supply Company, State Grid Henan Electric Power Company	A Robust Control Method for Active Dampers Against Filter Parameter Disturbance
340	Jun Zhang	Hohai University	Influence of Harmonics on the Reliability of Press Pack IGBT Devices
492	Chuyang Wang	College of Electrical and Power Engineering , Hohai University	The Frequency-decease Effect of Capacitor Voltage under Harmonic Compensation in MMC-APF Related to the Low Frequency Ratio

● Session Topic 3：

Power Electronic Devices, Transmission Control, and Energy Storage **Chairs: Zhihao Yang, Han Liu** **08:00-09:50, Oct. 27, 2024** **715 Meeting Room**			
Paper ID	**Author**	**Organization**	**Title**
506	Xianchen Zhao	Qujing Bureau of EHV Transmission Company	Study of Phase-Shifted Full-Bridge Return Power Optimization Algorithm
508	Xianchen Zhao	Qujing Bureau of EHV Transmission Company	Research on phase-shift full-bridge control strategy based on ADRC

18	Longji Zhu	Anhui University Of Science And Technology	Variable frequency and dual phase shift segmented control strategy of CLLC resonant converter for on-board charger
223	Xiaowen Yang	Nanchang University College of Information Engineering	A GaN Devices Based Resonant Soft-Switching Power Converter for Electrosurgery Applications
238	Dafei Lv	Hunan University	Sensorless Current Sharing Scheme For Multiphase Buck Converters Using Fuzzy PI Controller
394	Qinwei Zhang	College of Automation, Chongqing University of Posts and Telecommunications	A Numerical Parameter Optimization Design Method For Isolated Tripe Active Bridge Converter
428	Gaige Liang	State Grid Xuzhou Power Supply Company	Research on Control Strategies of Modular Multilevel Converter Based on Three-Level Controllers
432	Zhuolin Yang	Hohai University School of Electrical and Power Engineering	GaN-Based 200kHz LCC-S WPTS against misalignment condition with non-equal-size couplers
481	Dengke Sun	Anhui University of Technology	Peak Current Control of Swiss Rectifiers in Unbalanced Grids
40	Bo Chen	State Grid Tibet Electric Power Company Limited	Novel frequency control strategy for photovoltaic storage power stations in electric power systems based on model predictive control
61	Zaib Ullah Khan	Hohai University	Electrochemical Performance of Zn/Co Metal-Organic Framework/Reduced Graphene Oxide Nanocomposite for Energy Storage Applications

Session Topic 4:

Artificial Intelligence, Big Data, and Machine Learning for Cyber-Physical Power Systems Chairs: Fai Ge, Hongsheng Xu 10:10-12:00, Oct. 27, 2024 715 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
3	Wang Chao	State Grid Information and Communication Industry Group Beijing Guodiantong Network Technology Co., Ltd	Rresearch on automatic unattended bill collection, paste and verification integrated robot equipment and control platform based on deep convolutional neural network
37	Haifeng Zhou	State Key Laboratory of Smart Grid Protection and Operation Control	Assessment of static voltage stability margin for power systems with causal decomposition and reverse feature-enhanced temporal convolutional networks
42	Jiabin Zhang	Nari Group Corporation	Data-Physics Integrated Method for Cascading Faults Identification
51	Hong Yan Yu	School of Electrical and Automation Engineering Nanjing Normal University & NARI Group	UAV-based small object detection algorithm for PV panel identification
147	Lijun Liu	State Grid Jilin Marketing Service Center	MSIE: Multi-Scale Informer for Precise Electricity Consumption Forecasting of Distributed User
155	Weidong Liu	State Grid Tianjin Electric Power Company Marketing Service Center	Anomaly Detection Model for Electricity Consumption Based on Adaptive Threshold Estimation and Ensemble LSTM Autoencoders

159	Zening Zhao	China Electric Power Research Institute	Swin Transformer Architecture-Based Power System Transient Stability Assessment
288	Chen Liu	Chongqing University	Bi-objective Reinforcement Learning Optimization Of Virtual Power Plant Scheduling Considering Carbon Capture
10	Jiaye Tao	Information Centre of Guizhou Power Grid Co.	Enhancing Power System Stability against DoS Attacks through Hardware-in-the-Loop Simulation
17	Zhihong Liang	Electric Power Research Institute, China Southern Power Grid.	Construction and Application of Cyber Attack Simulation Platform for Power Systems
39	Shenjian Qiu	State Grid Smart Grid Research Institute Co., LTD.	Research on Assessment of Cyber Attack Risk Conduction in Distributed Photovoltaic Contained Distribution System

● Session Topic 5:

Energy Systems with Electric Vehicle Prospects and Network Interaction Chairs: Wei Wang, Ying Zhu 08:00-09:50, Oct. 27, 2024 716 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
83	Qi Wang	A Power System Data-driven State Estimation Adversarial Attack Method Based on Conditional Generative Adversarial Network	Southeast University, School of Electrical Engineering
145	Wenchao Li	Research on Bus Load Forecasting System Based on Cloud Edge Fusion Platform	China Southern Power Grid Co.,Ltd

4	Jilei Ye	A multi-objective optimization strategy for V2G-based scaled electric vehicles in distribution system with various PV penetration	Nanjing Tech University
118	Zesen Li	Optimal configuration of charging stations considering various charging characteristics of electric vehicle users	State Grid Jiangsu Electric Power CO., LTD. Economic Research Institute
120	Yajun Fan	Evaluation method of aggregate potential of rapid demand response for large-scale electric vehicle load	Management Cente State Grid Jiangxi Electric Power Co.,Ltd
141	Yunyun Xie	Evaluation of the Load Tunable Potential of Electric Vehicles Based on CNN-BiLSTM	Nanjing University of Science and Technology
158	Huaijia Zhang	Electric Vehicle Optimal Scheduling Based on Charging and Discharging Energy Boundary Model	Guangdong University of Technology
190	Dongsen Li	Multi-stage Operation Strategy of Electric Vehicle Aggregators in Energy-Frequency Market	China Energy Engineering Group Jiangsu Power Design Institute
286	Yuting Mou	Tariff Design for Private Electric Vehicle Charging Posts in the Residential Community	Southeast University
63	Bin Wu	A Day-Ahead Market Clearing Model Considering Deep Peak Regulation of Electrochemical Energy Storage	CSG Power Generation (Guangdong) Energy Storage Technology CO., LTD
66	Yuchao Xiong	Collaborative Optimization Strategy for Shared Energy Storage Station in Peak Shaving and Frequency Regulation	Three Gorges Electric Energy Co., Ltd.

Session Topic 6:

Renewable Generation, Distributed Energy Resources and Multi-energy Systems A Chairs: Zhi Wu, Yang Li 08:00-09:50, Oct. 27, 2024 718 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
50	Hongda Dong	Power Science Research Insitute of State Grid Jilin Electric Power Co.	MADDPG based Power Coordination Control Strategy for Hydrogen Energy Storage Units
220	Ke Duan	Hunan University	Optimal Dispatching for Integrated Energy System Considering Multiple Pathways to Hydrogen and Uncertainty of Renewable Energy
23	Xingshuo Li	School of Electrical and Automation Engineering, Nanjing Normal University	Comparison of Adaptive Virtual Impedance Coefficient for Power Oscillation Suppression in Multi-VSG Grids
46	Fenglin Miao	National Key Laboratory of Renewable Energy Grid-Integration(China Electric Power Research Institute)	Test and Assessment of Grid Forming Wind Turbine with Energy Storage based on Controller hardware-in-the-loop
49	Xiang Yu	State Grid Fujian Electric Power Co.,Ltd.	Planning and configuration of multi-hydrogen energy system in iron and steel industrial park considering low carbon
64	Hengyu Ling	NARI Group Corporation (State Grid Electric Power Research Institute)	An allocation method of distributed energy resources to loads through demand response based on curve matching
75	Bailiang Liu	State Grid Jiangsu Electric Power Co.,Ltd	Research on the Zero-Carbon Parks Interaction and Impact to the External Networks with Multiple Types of Energy Storage

81	Jingru Li	State Grid Economic and Technological Research Institute Co., Ltd	Voltage Stabililty Analysis in Three-Phase Unbalanced PV Rich Distribution Systems
92	Yuanyu Ge	Hohai University	Real-Time Scheduling of Wind-Solar-Hydro Complementary System Based on Deep Reinforcement Learning
103	Peiyi Zhou	Wuhan University	Impact of Distributed Energy Resources Integration on Voltage Vector Dynamics and Load Operation in Distribution Systems
107	Yihao Ou	North China Electric Power University	The self-responsive voltage control method for distributed photovoltaic inverters

Session Topic 7:

Power Electronic Devices, Transmission Control, and Energy Storage B **Chairs: Wenjun Bi, Jian Wang** **10:10-12:00, Oct. 27, 2024** **718 Meeting Room**			
Paper ID	**Author**	**Organization**	**Title**
110	Sicheng Pan	Yixing Branch, Wuxi Sanxin Power Supply Service Co., Ltd	Load Modeling of Distributed Generators Interfaced with inverters
124	Yanqiao Chen	CHN ENERGY New Energy Technology Research Institute Co., Ltd	Optimization of Operation Strategies for an Electricity-Gas Coupled Virtual Power Plant Considering Carbon Capture

126	Xingshuo Li	Nanjing Normal university, 210023, Nanjing, China.	Combining wavelet transform and temporal clustering methods to analyze PV fluctuations
128	Xinhang Zhou	School of Electrical and Power Engineering Hohai University	Model Prediction Control Combing Kinetic Energy Based Rotor Speed Control for PMSG-WECS
129	Han Wu		Use Limited Renewable Energy Data to Estimate Node Distributed Generation Hosting Capacity
151	Yanpei Song	Hohai University	A Day-Ahead Optimal Operation of Hydropower-Wind-solar Complementary System Considering Forbidden Zone
280	Shuhan Lu	School of Electrical and Electronic Engineering Huazhong University of Science and Technology	Phase-locked stability evaluation method for combined renewable power generation and thermal units transmission system
389	Wenting Huang	Hohai University	Impact of Renewable Energy on Transient Stability of Multi-area Long-chain Sending-end Network
405	Haozhen Cheng	Karlsruhe Institute of Technology	New Co-Simulation Variants for Emissions and Cost Reduction of Sustainable District Heating Planning
501	Jia Wei	State Key Laboratory of Water Resources Engineering and Management, Wuhan University	Impact of Turbine Efficiency Characteristics Changes on Economic Benefits of Hydropower Plants in Short-Term Scheduling
97	Hongfei Yu	Zhejiang University	Optimal Hybrid Energy Storage System Scheduling Strategy in Energy Market Considering Battery Cycle Life

Session Topic 8:

Demand Side Management and Emerging Technologies in End-User Systems Chairs: Juai Wu, Tingyu Jiang 10:10-12:00, Oct. 27, 2024 716 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
102	Juan Zuo	State Grid Shanghai Energy Internet Research Institute Co. LTD	Scheduling of virtual power plant operators in aggregated data centers considering carbon trading and green electricity trading
134	Hao Wang	School of Electrical and Power Engineering ， Hohai University	Research on the Joint Dispatch Model of Industrial Adjustable Loads Participating in the Electricity and Ancillary Services Market
214	Yuqing Yang	College of Electrical and Information Engineering Hunan University	Day-Ahead Optimizing Dispatch of the Renewable Energy Systems based on A Deep Q-Network Approach and Demand Response Strategies
300	Lei Gan	Hohai University	Non-Intrusive Load Monitoring Method Based on Color-Coded V-I Trajectories and Multi-Feature Fusion
307	Wenjuan Niu	Economic and Technology Research Institute, State Grid Jiangsu Electric Power Co.,Ltd.	Research on the Market Ability Assessment Method for Demand-Side Resource
417	Xinrui Liu	Northeastern University	Strategy for Improving Service Quality of Virtual Power Plant Considering Customer Satisfaction.
421	Jia Ning	Nanjing Institute of Technology	Equivalent Ratio of Frequency Regulation Resources based on Derivation of Open-Loop Control Frequency Deviation
539	Le Bu	Hohai University	Configuration Method for PVB System Based on the Resource of Zero-Carbon Buildings

68	Neeraj Singh Gautam	Power Grid Corporation of India Limited	A novel method for Stringing of Overhead Lines in non-approachable area using Drones and Plateena ropes
100	Xiaoqian Chen	Electric Power Research Institute of State Grid Ningxia Electric Power Co., Ltd.	Based on Reinforcement Learning for Power Command Allocation of Battery Energy Storage Stations
204	Rui San	State Grid Ningxia Electric Power Co.,Ltd	SOC control strategy of energy storage system based on Brin line theory

- **Session Topic 9:**

Electrical Machines and High Voltage Technology with FACTS **Chairs: Jilin Cai, Man Ding** **08:00-09:50, Oct. 27, 2024** **810 Meeting Room**			
Paper ID	**Author**	**Organization**	**Title**
114	Yanhui Li	Xiangtan University	Design of an Improved Sliding Mode Observer for Sensorless Switched Reluctance Motors
132	Xinhang Zhou	School of Electrical and Power Engineering Hohai University	Fault Tolerant Control for PMSG with Interturn Short Fault Based on Current Residuals
199	Fengjie Long	Hunan university	Parameter-Adaptive Recursive Least Squares Identification and Optimization for Permanent Magnet Synchronous Motors
232	Anpeng Wang	Harbin Institute of Technology	Current Inner Loop Design Considering Inductance Asymmetry for PMLSM Drives

272	Zefeng Yang	Hohai University	Loss Optimization Method for Controllable Rectification Generation System of Doubly Salient Electromagnetic Generator Based on Angular Position Control
353	Kunjie Huang	Nanchang University	A Modulation Method to Reduce Capacitor Voltage Ripple in Floating Capacitor Dual Inverter with Virtual Vectors
358	Shushu Zhu	Nanjing University of Aeronautics and Astronautics	Current Control of Triple-Redundancy PMSM Using Deadbeat Active Disturbance Rejection Control
109	Fan Liu	State Grid Hubei Electric Power Research Institute	Study on Temperature Rise Characteristics of C4F7N/CO2 Mixed Gas GIL Busbar With Different Air Pressures and Mixing Ratios
127	Chuan Wang	Xi'an Jiaotong University	Research on the Impact Principle of STATCOM Integration on the Penetration Rate of Photovoltaic Generation in Weak Grid
136	Wentao Liu	College of Electrical Engineering, Zhejiang University	Fault Ride-Through Strategy of LCC-MMC Series Hybrid HVDC Transmission System for Offshore Wind Farms
250	Siyan Yu	State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University	Dielectric properties of insulating materials in subnanosecond pulse generator

Session Topic 10:

Grid Resiliency and Reliability in Power and Energy Engineering Chairs: Haiya Qian, Xu Wang Time: 10:10-12:00, Oct. 27, 2024 810 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
6	Yaqian Li	Shenzhen Power Supply Bureau Co., Ltd	Optimization configuration method for feeder automation considering the balance of reliability and economy
7	Yanjian Peng	Hunan University	A LADRC and Self-Adaptive Combination Control Method of VSG for Transient Stability Enhancement During Voltage Sag Compensation
13	Peiyi Zhou	Wuhan University	Asymmetric Fault Ride-Through Optimal Control of Direct-Drive Wind Turbine Based on the APLL
28	Yong Li	Hunan University	Resilience-Oriented Robust Scheduling for Multi-energy Microgrids with Importance based Load Classification
113	Yazhou Lv	NARI Group Corporation (State Grid ElectricPower Research Institute))	Low frequency resonance suppression strategy for hydropower photovoltaic combined external transmission system
415	Chunsheng Guo	College of Electrical Engineering, Sichuan University	A Coordinated Current Limiting Method for Flexible DC Grids Based on Source-Grid Limiting Contribution
418	Ciwei Gao	School of Electrical Engineering, Southeast University	Optimization Method for Virtual Power Plant Management Based on Prosumers' Distributed Energy Storage Sharing

444	Jiarun Zhu	Nanjing University of Science and Technology	Stability Analysis for Secondary Voltage Control of Microgrids Considering Communication Delays
445	Tao Jiang	Northeast Electric Power University	A Novel LSTM for Predicting Transmission Line Faults unter Ice Disasters
484	Xinrui Liu	College of Information Science and Engineering, Northeastern University	Electric Power Industry Innovation Mechanism: Current Situation and Prospect
356	Jingwen Zhou	Hohai University	Planning of power allocation strategies for a hybrid energy storage system in a joint energy-reserve-frequency regulation market

Session Topic 11:

Planning, Operation, Control and Modelling of Power and Energy Systems A **Chairs: Si Lv, Bo Wang** **08:00-09:40, Oct. 27, 2024** **811 Meeting Room**			
Paper ID	**Author**	**Organization**	**Title**
34	Xiaofeng Dong	State Grid Jiangsu Electric Power Co. Suzhou Power Supply Company Suzhou, China	A Robust Pricing Strategy based on Graph Theory for Multi-Shore Power System Considering Shared Energy Storage in Distribution Network Market
41	Jingtian Bi	China Electric Power Research Institute	Study on Improved Control Strategy of SVG and Cooperative Arrangement Method with Static Reactive Power Compensation Equipment
45	Chao Hong	Electric Power Research Institute,China Southern Power Grid, Guangzhou	Switched event-triggering secondary frequency control of power systems considering wind

		Guangdong	and solar stochastics under denial of service attack
48	Hongbo Sun	Mitsubishi Electric Research Labs(MERL)	Proactive Sequential Phase Swapping Scheduling for Distribution Systems with a Finite Horizon
74	Yunyun Xie	Nanjing University of Science and Technology	Small-signal Stability Analysis of Offshore Wind Farm Integrated Grid-forming MMC-HVDC
78	Wenlong Li	Shanghai Jiao Tong University	A Second-Order Cone Low-Carbon Optimal Dispatch Model Considering Electric Vehicle Grid Interaction and Battery Life Degradation
115	Jerome Fonin	Indian Management School & Research Centre	Cameroon household electricity demand forecast by a combined end-use, geographic mapping, and regression method
119	Zesen Li	State Grid Jiangsu Electric Power CO., LTD. Economic Research Institute	Integrated Configuration of Electric Vehicle Charging Stations and Distributed Generation Considering Demand Response Capacity
137	Honghai Chen	Hohai University	Research on Internal Reactive Power Optimization Strategy for Offshore Wind Farms Considering Minimization of Line Losses
142	Feng Dong	Siemens	A Practical Corrective Switching Algorithm with Full-Topology Model of Power Systems

Session Topic 12:

Planning, Operation, Control and Modelling of Power and Energy Systems B Chairs: Shuyang Zhou, Lei Gan 10:00-11:40, Oct. 27, 2024 811 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
149	Lei Gan	Hohai University School of Electrical and Power Engineering	An accurate solution to nonlinear optimization problem in distribution network VVC particiated with PV inverters
154	Shiyang Liu	NANRI Group Co., Ltd	Real-Time Dispatch Strategy Based on the Complementary Characteristics of Multiple Energy Storage Systems
203	Zhengcheng Feng	China Electric Power Research Institute	Voltage Stability Analysis and Quantitative of Power Systems Considering LVRT of Renewable Energy
283	Keyan Li	School of Electrical Engineering ,Shandong University	Frequency Nadir Prediction Method Based on The Two-area Frequency Response Model
292	Jiaqi Che	Marine Design and Research Institute of China	Research on Multi-objective Optimization Strategy of Capacity Configuration for Ship Composite Energy Storage Systems
341	Wentao Huang	Shanghai Jiao Tong University	Coordinated Planning of Offshore Green Ammonia Production and Near-Zero Ship Transportation for Multiple Energy Islands
423	Zhen Gong	Department of Electrical Engineering, Tsinghua University	Investigation of the Forced Oscillation in a VSG-based PV System

435	Anxiang Lu	Nanjing institute of technology	Research on fast optimal corrective transmission switching based on deep reinforcement learning
466	Shilin Gao	College of Electrical Engineering, Sichuan University	Numerical Oscillation Suppression of Electromagnetic Transient Simulation Based on Eigenvalue Analysis
524	Xudong Li	The Hong Kong Polytechnic University	A Short-term Scheduling-control Synergic Model of Hydropower Units for Hydro-Wind-Solar Complementary Operation

● Session Topic 13:

Future Energy Systems: Microgrids, Standalone Power Systems, and Virtual Power Plants Chairs: Ye Cai, Sheng Chen 08:00-09:40, Oct. 27, 2024 815 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
364	Chuanhui Cheng	Electric Power Research Institute, China Southern Power Grid	The Effect of Mechanical Treatment on the Performances of Graphene / copper Composites
410	Zhiwei Shen	UNSW Sydney	Monitoring Service for Updating Power System Digital Twins
455	Pinghui Wu	Hefei University of Technology	Analysis of Demand Response in Distribution Network Scenarios with Photovoltaic Integration.
62	Yuanhao Li	Hohai University	The Bidding Strategy of Wind-Solar-Small Hydropower Virtual Power Plants in the Energy and Auxiliary Service Market

76	Javan Chiro	Strathmore University	Microgrid Energy Supply Optimization: A Case of Wasini Island, Kenya
91	Haiqing Gan	State Grid Jiangsu Electric Power Co.,Ltd.	Collaborative optimal scheduling strategy of new energy microgrid considering flexible load regulation
94	Yvhua Mi	Xiangtan university Faculty of Automation and Electronic Information	Optimal scheduling of independent microgrid based on multi-objective improved gray wolf algorithmaper
108	Shuyu Cao	Hohai University	Coordinated Low-Carbon Scheduling Strategy for Multiple Virtual Power Plants Considering Carbon-Electricity-Green Certificate Trading
335	Xiangchen Jiang	School of Electrical and Power Engineering, Hohai University	Hierarchical Optimization Scheduling Model of Multi-Microgrids Based on Analytical Target Cascading
336	Jinxi Yuan	Hohai University	Distributed optimization of virtual power plant clusters considering a carbon incentive and penalty mechanism in uncertain environments

● Session Topic 14:

Power Electronic Devices, Transmission Control, and Energy Storage Chairs: Sicheng Wang, Xiaoxiao Dong 10:00-11:40, Oct. 27, 2024 Room: 815 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
90	Zhinong Wei	Optimal Operation of Distribution System Operator and Multi-intelligent Community Micro-Grid Based on Hybrid Game Theory	School of Electrical and Power Engineering Hohai University

557	Zipeng Liang	Energy Management in Microgrids: Sufficient Conditions for Convex Bi-directional Converter Operation Model	Department of Electrical and Electronic Engineering, Hong Kong Polytechnic University, Hong Kong SAR
31	Feng Wen	Research on Fault Diagnosis Method for Wireless Power Transfer Systems Based on PSO-SVM	Nanjing University of Science and Technology
38	Tingyu Gao	Research on key technology of transformer partial discharge detection based on ultrasonic-UHF fusion sensor	China Electric Power Research Institute
67	Hexiangyue Long	Harmonic Response Analysis of 220 kV Oil-Immersed Transformer Winding And Core Under Preload	Huazhong University of Science and Technology
106	Wanxing Sheng	A New Method for Detecting and Evaluating the Insulation State of Transformers Based on Frequency Response Analysis	China Electric Power Research Institute
138	Honghai Chen	Maintenance strategy for offshore wind farms based on optimal maintenance time windows	Hohai University
239	Wei Wang	An Interturn Short-Circuit Fault Diagnosis Method in Distribution Transformer Based on Three-phase Magnetizing Admittance Ratio	School of Electrical Engineering, Southeast University
303	Hanjun Jiang	On Deep Learning for Condition Assessment of Power Transformers	The University of Queensland

463	Zhiqiang Feng	Intelligent Tilt Monitoring Method for Pylon Using High Precision Terrestrial Laser Scanning	State Grid Hubei Electric Power Research Institute

● Session Topic 15:

Electricity Market and Power System Protection and Monitoring Chairs: Nan Zhao, Xiaorong Sun 08:00-09:50, Oct. 27, 2024 816 Meeting Room			
Paper ID	**Author**	**Organization**	**Title**
32	Jihe Xu	Jiangxi Power Trading Center Co., LTD	Load Aggregator Pricing Strategy Considering Demand Response Capability in Provincial Power Grids
80	Xin Chen	Department of Electrical Engineering,Tsinghua University	Comparison of Three Intelligence Algorithms on Parameter Identification of Jiles-Atherton Model
111	Yun Wang	Nanjing NARI-Relays Electric Co., Ltd	Research on Internal Fault Analysis and Main Protection Design of Zhaoqing Variable-Speed Pumped-Storage Unit
143	Jianing Bai	Tsinghua University	A Rotor Protection Scheme Extracting the Main Stator Harmonics of Variable Speed Pumped Hydro Machines
181	Yingjian Jia	Shool of Electrical Engineering Shandong University	Adaptability Study of Under-Voltage Load Shedding Strategies for Grid with Large-Scale Distributed Photovoltaic Generation
185	Jiangliang Jin	Donghua University	A Day-Ahead Market Clearing Model under System Inertia Constraints

266	Bing He	State Grid Shanghai Extra High Voltage Company	Research on the Fusion Detection Method of Extreme Learning Machines and Sparse Coding
276	Wei Chai	Electric Power Research Institute State Grid Shanghai Municipal Electric Power Company	New Distribution Network Digital Twin Construction Technology and its Application in Accident Planning
359	Xiaodan Zhuang	Zhejiang Electric Power Trading Center Co., Ltd	Research on the effectiveness evaluation system of provincial power market system construction considering green, supply retention and price stability
382	Jinghui Yu	Xi'an Jiaotong University	Inter-provincial Multi-channel Centralized Bidding Transaction Considering Carbon Emission Reduction
512	Weijia Yang	State Key Laboratory of Water Resources Engineering and Management, Wuhan University, Wuhan 430072	Preliminary Study of Reliability Prediction from Regulation Intensity of Pumped Storage Units in Renewable Energy Systems

● Session Topic 16:

Non-Destructive Insulation Test Techniques and Quality of Power and Energy Systems
Chairs: Lizi Luo, Chao Dai

10:10-12:00, Oct. 27, 2024
816 Meeting Room

Paper ID	Author	Organization	Title
197	Linxin Wang	Harbin Institute of Technology, Shenzhen	A New Method for cable soft fault detection based on the Broadband Electromagnetic Time Reversal
247	Huaqiang Li	State Key Laboratory of Electrical Insulation and Power Equipment	Using Local Maximum Difference Enhanced Texture and Multifeature Fusion for Evaluating the Aging of Insulating Paper in Microscopic Image

494	Shan Gao	State Grid Jiangsu Electric Power Research Institute	Noise Reduction Study of Vacuum Interrupter Vacuum Level Spectra for Terahertz Detection Based on IWT-RTS
25	Mingtong Yang	Tianjin University	Layered and Distributed Voltage Optimization for High and Medium-Voltage Distribution Networks with High Penetration of PV
26	Bingxin He	Polytechnic Institute Zhejiang University	Harmonic Resonance Mode Analysis for Offshore Wind Power System Based on Impedance Gathering
88	Xiao Zhang	NR Electric Co., Ltd	Review and Prospect of Primary Frequency Regulation Evaluation for New Power System
237	Wei Wang	Southeast University	Dual Zero-Crossing Detection Control Strategy for Power Electronic On-Load Tap Changer of Distribution Transformer
269	Tao Ding	Xi'an Jiaotong University	Research on Provincial Reliability Evaluation Considering Multi-Cycle Trading Strategies of Renewable Energy
362	Jinpeng Guo	Hohai University	Clustering of Operating Scenarios for New Energy Power Systems Based on the Variables Affecting Static Voltage Stability
457	Tao Xu	Hohai University	The Impact of Renewable Energy Fault Recovery Rate on the Transient Stability of the Sending-End Power Grid
530	Weijia Yang	State Key Laboratory of Water Resources Engineering and Management, Wuhan University	Regulation Intensity of Hydropower Plant under Different Scenarios of Renewable Energy Volatility: A Preliminary Analysis

POSTER SESSION

Session Topic 1

Date: Oct. 26, 2024

Chairs: Jun Zhang, Keman Lin, Min Wang, Lei Xi

Time: 13:30-14:10

Session Topic 2

Date: Oct. 26, 2024

Chairs: Zhixin Fu, Zhenfei Chen, Yuying He, Xun Dou

Time: 14:25-15:05

Session Topic 3

Date: Oct. 26, 2024

Chairs: Qi Wang, Yizhou Zhou, Chong Wang, Qingsong Zhang

Time: 15:20-16:00

Session Topic 4

Date: Oct. 26, 2024

Chairs: Jinpeng Guo, Xingwei Zhou, Jiu Zhu, Qiang Qian, Junjie Hu

Time: 16:15-16:55

Session Topic 5

Date: Oct. 26, 2024

Chairs: Yujing Guo, Junpeng Zhu, Ping Jin, Huiling Su

Time: 17:10-17:50

Session Topic 1

Date: Oct. 26, 2024

Chairs: Jun Zhang, Ke Man Lin, Min Wang, Lei Xi

Time: 13:30-14:10

Stand No.	Paper ID	Author	Affiliation	Title
1	5	Mohammad Moradzadeh	ULB	A Review of Condition Monitoring of Offshore Wind Turbines
2	8	Guoqiang Zu	State Grid Tianjin Electric Power Research Institute	Assessment of Load Security Margin of Transformer-electric Charging Station
3	9	Cunqiang Huang	Research Institute of Economy and Technology of State Grid Qinghai Electric Power Company	Research on Source-Grid-Load-Storage Coordination Planning Method of Centralized-Distributed Form
4	12	Wenbo Tan	College of Information Engineering Xiangtan University	Capacitive charge-secondary side phase shift control method for LLC resonant converter
5	14	Yizhuo Ma	Shanghai Jiao Tong University Shanghai, China	Torsional Oscillation Characteristic·Analysis of the PMSG-based Wind-driven System Considering VIC
6	15	Yizhuo Ma	Shanghai Jiao Tong University Shanghai, China	Resonance Analysis of the Grid-following PMSG-based Wind-driven System Considering VIC
7	16	Zheren Zhang	College of Electrical Engineering, Zhejiang University	Optimization of AC Filter for Offshore Wind Power Transmission System via 24-Pulse Diode Rectifier
8	20	Yihang Zhao	CEC Technical & Economic Consulting Center of Power Construction	Predicting Electric Power Demand in China Based on HS-GM Model

9	21	Su Guo	Hohai University	Complementary Scheduling of Cascade Hydropower Stations and Photovoltaic Power Considering Daily Regulating Hydropower Stations
10	22	Xingshuo Li	School of Electrical and Automation Engineering, Nanjing Normal University	Comparative Study on Interharmonics Mitigation for Grid-connected PV Systems
11	29	Tingyu Gao	China Electric Power Research Institute	Development and Validation of a Partial Discharge Simulation Platform for Transformer Insulation Monitoring
12	30	Tingyu Gao	China Electric Power Research Institute	Integrated Ultrasonic and Electrical Sensor for Partial Discharge Detection in Power Transformers
13	35	Zeyu Zhang	School of Electrical Engineering，Southeast University	Analysis of Open Capacity and Overloaded Lines of Distribution Networks in Jiangsu Province
14	43	Shan Li	Electric Power Research Institute of Guangxi Power Grid Co., Ltd.	Research on evaluation index system and evaluation method of distribution network fault outage risk under the background of big data
15	44	Yangjun Zhou	Electric Power Research Institute of Guangxi Power Grid Co., Ltd.	Application of Artificial Intelligence in Risk Assessment of Distribution Network
16	53	Liu Junhui	State Grid Henan Economic Research Institute	Cost reduction effectiveness calculation and impact analysis of the integrated project of source network load storage
17	54	Zihan Zhou	Shanghai Jiao Tong University	Coordinated Operation of Multiple Flexible Resources in Low-carbon Microgrid With Annomia and Hydrogen Storages
18	55	Xingyuan Ren	Anhui University	Enhanced Detection of Insulator Defects Through Environmental Temperature Curve Analysis

19	56	Liu Junhui	State Grid Henan Economic Research Institute	Economic analysis of rural source-network-charge-storage integration project
20	57	Bangjin Liu	CSG POWER GENERATION (GUANGDONG) ENERGY STORAGE TECHNOLOGY CO., LTD	A Day-Ahead Optimal Economic Dispatch Strategy of Industrial Parks Considering Electrochemical Energy Storage
21	58	Zheng Weng	CSG Power Generation (Guangdong) Energy Storage Technology Co.,Ltd	Coordinated and Optimized Scheduling Mechanism for User-Side Battery Energy Storage
22	59	Zhiqiang Wang	China Southern Power Grid Energy Stotage Co.,Ltd	A Game Theory Method for Market Trading of Battery Energy Storage Power Stations Considering Reserve and Frequency Regulation
23	65	Yibo Li	Southeast university	Observability Analysis of Distribution Networks using Stochastic Response Surface Method
24	69	Rock Agon	Carnegie Mellon University Africa	Optimizing Grid Performance through Vehicle-to-Grid Integration: A Comprehensive Review
25	71	Jiajie Feng	University of Queensland	Wide-area Virtual Power System Stabilizer Design for Mitigating Inter-area Oscillations
26	72	Zijian Wang	Nanjing Softcore Co., Ltd.	Node Load Forecasting Method with Distributed Rooftop Photovoltaic Considering Meteorological Conditions
27	73	Yiping Yu	School of Electrical and Power Engineering, Hohai University	Analysis of grid-connected oscillation characteristics of offshore wind power based on impedance model
28	77	Ye Zhang	Electric Power Research Institute, China Southern Power Grid	Minimum inertia assessment method for high percentage new energy power system based on improved particle swarm algorithm

29	79	Yingshuang Wu	Guizhou Power Grid Co., Ltd. Guiyang, China	Multi-Area Coordinated Control of High-Proportion New Energy Power Grids Based on an Improved Deep Deterministic Policy Gradient Algorithm
30	82	Hui Zhou	School of Automation and Electronic Information Xiangtan University	Efficient Wind Power Forecasting Based on Data Reconstruction and the PSO-CNN-LSTM Hybrid Model
31	84	Longyuan Liu	The School of Automation and Electronic Information Xiangtan University	Virtual infinite capacitor for grid-connected inverter
32	85	Zhongqi Guo	State Grid Electric Power Research Institute	Characteristic prediction for the transformers by a grey Verhulst model
33	86	Zhongqi Guo	State Grid Electric Power Research Institute	Investigation of prediction with grey model for different combinations of transformer characteristics
34	87	Zhongqi Guo	State Grid Electric Power Research Institute	Prediction approach for the oil temperature of transformers by a grey method with grouping strategy
35	93	Shuo Feng	Hohai university	Game Theoretic-Based Firm-Energy Allocation Strategy of Wind-Solar-Hydro Energy System
36	95	Bingxin He	Polytechnic Institute Zhejiang University	Research on Harmonic Resonance Suppression of AC Integrated Offshore Wind Farm with Impedance Reshaping STATCOM
37	96	Guobing Pan	College of Mechanical Engineering Zhejiang University of Technology	Short-term PV cluster power prediction based on fuzzy C-means and ITransformer-TCN
38	98	Wei Chen	Power China Huadong Engineering Corporation Limited	Optimal Capacity Allocation Strategy of BESS Considering the Frequency Regulation of wind turbine generation and BESS
39	99	Zhihan Wu	College of Electrical Engineering and Automation Fuzhou University	Power Prediction of Distributed Photovoltaic Plants Based on Dynamic Feature Extraction and CNN-BiLSTM

40	101	Juan Zuo	State Grid Shanghai Energy Internet Research Institute Co. LTD	Investigating the bidding strategy of loaded virtual power plant while considering multiple demand response resources (3)
41	104	Haiquan Huang	State Grid Jiangsu Electric Power Co., Ltd.	Voltage Dynamic Response Analysis Under the Fault of Distribution Network
42	105	Cheng Gu	Long Yuan (Beijing) New Energy Engineering Technology Co., Ltd	Improved siamese neural network based on feature fusion for wind turbine fault warning and identification of key components
43	116	Wei Liu	State Key Laboratory of HVDC, Electric Power Research Institute, CSG	Research on collaborative optimization method of multi-area integrated energy system with high proportion of new energy access
44	117	Li Yang	Zhejiang University	Maximum Hosting Capacity Evaluation of Renewable Energy for Regional Power Systems Considering Multiple Scenarios
45	121	Shibiao Fang	Shenzhen University	On site personnel access monitoring and early warning in photovoltaic field based on AI image recognition
46	122	Hang Meng	State Grid Zhejiang Electric Power Co., Ltd Wenzhou Power Supply Company	Development and Application of Intelligent Remote Closing Device for Substation Considering Multiple Emergency Scenarios
47	123	Enhao Shi	Zhejiang University of Technology	Research on Online Optimal Dispatch Strategy of Virtual Power Plants Based on Deep Reinforcement Learning
48	130	Sun Shaobin	Nanjing SuYi Industrial Co., LTD	Cluster Control Strategies for Multi-Type User Distributed Energy Storage with Peak Shaving and Voltage Regulation Considerations
49	131	Congdong She	School of Electrical Engineering and Automation, Wuhan University	The Influence of Trace Water on the Partial Over-heating Decomposition Characteristics of C5F10O/N2 Mixture as an Insulating Medium

50	133	Congdong She	School of Electrical Engineering and Automation, Wuhan University	Deterioration Behaviours of Nitrile Butadiene Rubber in C5F10O/N2 Insulated Switchgear
51	135	Junfeng Hu	North China Electric Power University	Research on Cost Allocation of Ramp Services Using Independent Energy Storage Dynamic Shapley Value
52	140	Jiahao Zhang	Nanjing University of Science and Technology	Research on multidimensional comprehensive assessment index of power system under extreme external disasters
53	144	Haojing Wang	State Grid Shanghai Electric Power Company Electric Power Science Research Institute	Day-ahead scheduling strategy of electric vehicle cluster microgrid considering source-load uncertainty
54	146	Qi Cui	State Grid Electric Power Research Institute	Migration of Desktop Applications for Power Systems Operation and Management Based on Binary Translation Engine: PhyBin
55	148	Bencheng Zhong	Harbin Institute of Technology	Newton-Raphson Predictive PLL Based Position Estimation Method for Sensorless SynRM Control
56	150	Hanlin Guo	College of Electrical Engineering, Zhejiang University	Compact Galvanic Isolated Modular Multilevel High Voltage DC/DC Transformer and Its Control Scheme in Full DC System
57	152	Puyu Wang	Sg-Relays Co. Ltd., Nanjing, China	Real-time Monitoring Method for Small-Signal Stability of VSC-HVDC Converter Based on Digital Twin Approach
58	153	Puyu Wang	Sg-Relays Co. Ltd. Nanjing,China	Real-Time Junction Temperature Monitoring Method for IGBT Power Modules of VSC Converters Based on Digital Twin Technology
59	156	Chenyi Zheng	Nanjing Dongbo Smart Energy Research Institute	Key Parameters Optimization Method of Wind Turbine Reactive Power Support Considering Power Angle Stability and Short-Circuit Current

60	157	Haixiang Xie	School of electrical engineering Southeast University	Frequency-Constrained Robust Unit Commitment Model Considering Virtual Inertia Control of Wind Farms
61	160	Ke He	Sichuan Energy Internet Research Institute Tsinghua University	Demand Response Potential Prediction Method for Residential User Clusters with High Penetration Behind-the-Meter Distributed Photovoltaics
62	161	建润 张	Southeast University	Research on blind zone visual warning design strategy of AR-HUD under different driving road scenarios
63	163	Ying Wang	Key Laboratory of Measurement and Control of CSE, Ministry of Education Southeast University Nanjing, China	Multi-resources Supplemental Dispatch to Make up Frequency and Ramping Capacity Shortfalls of Coal-Fired Power Units
64	164	Kang Chang	School of Electrical Engineering and Automation, Harbin Institute of Technology, NARI Group Corporation (SGRPRI)	A Strategy of Adjusting the Emergency Repair Program for Sudden Risk Under Ice Disasters
65	165	Xiaoxi Chen	China Electric Power Research Institute	Research on technical standards for grid-connection frequency support of photovoltaic power generation
66	166	Yang Fan	State Grid Shanghai Municipal Electric Power Company Electric Power Research Institute	Research on Failure Rate Prediction of Power Equipment Based on Random Forest
67	167	Shuyi Li	Guangdong University of Technology	U2-P droop control strategy considering the effect of line resistance
68	168	Wei Chai	State Grid Shanghai Municipal Electric Power Company Electric Power Research Institute	Optimal Scheduling of Distributed Resource Reliability in Distribution Grids Based on Improved Whale Algorithm

69	170	Zhichao Yang	School of Electrical Engineering, Southeast University	Review on the Technology and Engineering Application of Phase Shifting Transformer
70	171	Weixu Tian	School of Automation,Nanjing University of Science and Technology	Repair Crew Scheduling for Distribution System Restoration Considering Unbalanced Voltage Degree

Session Topic 2

Date: Oct. 26, 2024

Chairs: Zhixin Fu, Zhenfei Chen, Yuying He, Xun Dou

Time: 14:25-15:05

Stand No.	Paper ID	Author	Affiliation	Title
1	172	Chuyang Wang	Hohai University	Research on Voltage Balancing Strategy in UPFC Feedback Control Based on Tagging Model
2	173	Xia Zhao	Heilongjiang University of Science and Technology	Application of Deep Learning Algorithm and Platforms in Hydropower units
3	174	Zhichao Yang	School of Electrical Engineering, Southeast University	Interpretation and Applicability Analysis of Guides for Phase Shifting Transformer
4	175	Wei Liu	State Grid Weihai Power Supply Company	Renewable Power Hosting Capacity Assessment Considering L-index for Static Voltage Stability
5	179	Xiaochen Zhang	State Grid Beijing Electric Company	Resilience-oriented Allocation of DERs Considering the Fragility Model of Distribution System Components
6	180	Junchai Wang	Powerchina Zhongnan Engineering Corporation Limited	Research on Power Expansion and Optimization Based on Profit and Loss Balances of Power, Peak Shaving, Power Consumption, and System Economy in Data-deficient Regions

7	182	Jingyi Li	Planning Department Power China Northwest Engineering Corporation Limited	Research on the simulation operation of wind, solar, thermal and energy storage bases based on improved bee colony algorithm
8	183	Wei Liu	State Grid Weihai Power Supply Company	Evaluation of Renewable Energy Accommodation Capacity Considering Transient Voltage Stability
9	187	Chi Chen	School of Electrical Engineering Xi'an University of Technology	The investigation of space charge characteristics for liquid rubber doped epoxy resin under different temperature gradient
10	189	Dongsen Li	China Energy Engineering Group Jiangsu Power Design Institute	Economic Analysis of Multi-microgrid Considering Integrated Demand Response
11	192	Qitao Liu	State Grid Electric Power Research Institute	Model Simplification and Time Complexity Reducing Method For Security and Stability Control Systems
12	193	Dongsen Li	China Energy Engineering Group Jiangsu Power Design Institute	Coordinated Operation of Regional Integrated Energy Systems Based on Electrical Thermal Coupling Devices
13	194	Weilin Zhong	School of Electrical Engineering Xinjiang University Urumqi, China	Optimization of Primary Frequency Regulation for Virtual Power Plants Based on Data-Driven and Grey Wolf Optimizer
14	195	Dong Zhang	China Renewable Energy Engineering Institute	Research on Optimization Model of Medium-long-term Maintenance Schedule for New-generation Power System
15	196	Denghui Fu	hohai university	Electricity-Carbon Market Clearing Model Based on Combined Carbon Abatement Mechanism and Locational Marginal Price Analysis
16	198	Yiming Zhu	Power China Beijing Engineering Corporation Limited	Research on the Power Supply Configuration of New-generation Power System Based on Full-time Electric Power and Energy Balance Process

17	200	Chenxu Liu	Hunan University	Sensorless control of permanent magnet synchronous motor based on new integral sliding mode observer
18	202	Hanlin Guo	College of Electrical Engineering, Zhejiang University	DC Voltage Control and DC Fault Protection Scheme for Multi-Voltage Level DC Grids with High Voltage DC/DC Transformer
19	205	Yongkang Zhou	School of Automation , Nanjing University of Science and Technology	Intra-phase SOC balancing control strategy with THVI
20	206	Ge Junkai	State Grid Zhejiang Electric Power Co., Ltd. Research Institute	Multi-physics simulation study on current carrying characteristics of high voltage AC submarine cable under multiple working conditions
21	207	Shiyou Xing	School of Automation Nanjing University of Science and Technology	Thermal fault diagnosis method for lithium-ion batteries based on electrochemical impedance spectroscopy
22	208	Bencheng Zhong	Harbin Institute of Technology	Ellipse Fitting Technique Based Sensorless Control for SynRM Using Rotating Square Voltage Injection
23	209	Jiawei Pan	Southeast University	Optimization of Virtual Power Plant Operation Strategy Based on Deviation Demand Response
24	210	Lijun Liu	State Grid Jilin Marketing Service Center	Short-term Load Forecasting Based on Pattern-Guided Convolutional Neural Networks Under Different Electricity Consumption Profiles
25	211	Haohong Peng	EVE Energy Co., Ltd	A brief review of battery management technology for smart battery
26	212	Huaihua Zheng	State Grid Jiaxing Electric Power Supply Company	Research on optimization control strategy with PSS based on VSG-Controlled inverter
27	216	Junling Wan	College of Artificial Intelligence Nanjing Agricultural University	ALDDPS:Abnormal Detection Based on Biased Random Key Genetic Algorithm and Denoising

				Self-encoder of Distributed Power Station
28	217	Yixing Hao	School of Automation and Electronic Information, Xiangtan University	Research on Adaptive Reclosing Technology for Low-Voltage Distribution Networks
29	218	Jingjie Ma	Shanghai Institute of Technology, School of Electrical and Electronic Engineering	A Novel Cournot Model of Electricity Market Considering Retailers' Strategic Behaviors
30	219	Yixiao Wang	State Grid Jiaxing Electric Power Supply Company	The comprehensive compensation strategy for power quality of energy storage DSTATCOM in low-voltage distribution networks
31	221	Depin Feng	State Grid Linyi Power Supply Company	Solution Analysis of Optimal Reactive Power Flow Considering Voltage Constraint Variation
32	222	Dezhong Li	Hunan Datang Xianyi Technology Co. Emerging Business Division	Research on real-time prediction of CO2 emissions from thermal power plants based on multilayer perceptron
33	226	Jie Wang	Shanghai Jiao Tong University	Model Prediction Control Method of Frequency Regulation for Ship Diesel-Storage Hybrid Supply System
34	227	Guishu Zhao	School of Electrical and Automation Engineering, Nanjing Normal University, Nanjing, China	Characteristic Analysis of Three-Phase Interleaved Staggered Parallel DC/DC Converter for Electric Vehicle
35	230	Wei Liu	Nanjing University of Science and Technology	Distributed coordinated optimal dispatch of multiple virtual power plants under non-cooperative game theory
36	233	Guishu Zhao	School of Electrical and Automation Engineering, Nanjing Normal University, Nanjing, China	Adaptive control strategy for VSG parameters based on direct-drive wind turbine system
37	236	Mingde Liu	Center for Modern Information Management, School of Management,	A two-step locational marginal price forecasting method in spot market with poor data

			Huazhong University of Science and Technology	
38	240	Haiyan Zhang	School of Electrical and Power Engineering, Hohai University	A Method for Site Selection and Capacity Determination of Distributed Condenser in Multiple Wind Power Qutput Scenarios
39	241	Wei Wang	School of Electrical Engineering, Southeast University	Adaptive Zero-Crossing Regulation Algorithm for Multi-Winding Parallel-Wound Distribution Transformers
40	242	Rui Liu	College of Electrical and Information Engineering Hunan University	ANALYSIS AND OTIMIZATION FOR 15MW DIRECT-DRIVE WIND GENERATOR BASED ON STATOR CORE COOLING TECHNOLOGY
41	243	Heyu Luo	Tianjin University	Modern Power System Frequency Response Security Region Considering Safety Constraints
42	244	Yuhong Wu	Deqing Xindian Electric Power Construction Co., Ltd	Study on Leakage Magnetic Characteristics under Inter-turn Short Circuit Fault of Transformer
43	245	Md. Rokonuzzaman	School of Engineering, Monash University Malaysia	ANN-Based Grid-Connected Solar PV Integrated Smart Home Energy Management System
44	246	Jianghua Wu	Shenzhen Research Institute of Big Data, The Chinese University of Hong Kong-Shenzhen	A Novel Price-Oriented Supply-Demand Interaction Scheduling Model Optimizing Virtual Power Plant Operations
45	248	Zixuan Wang	Xi'an Jiaotong University	Mechanism of broadband harmonic amplification and insulation deterioration in DC submarine cables
46	249	Huaqiang Li	State Key Laboratory of Electrical Insulation and Power Equipment	Study of Mechanical Properties of High Voltage Cables Under Lateral Pressure Based on Finite Element Simulation

47	251	Boyu Qin	School of Electrical Engineering, Xi'an Jiaotong University	Analysis of Stability Control Mismatch Scenario in Renewable Energy Sending System
48	252	Zhaotai Meng	State Grid Henan Information Telecommunication Company (Data Center)	Analysis of Dynamic Cost Variations in Electricity Data Based on Machine Learning
49	254	Jinpeng Guo	Hohai University	Optimal Allocation of Inertia for Renewable Energy Sources to Improve System Frequency Stability
50	255	Xinqiao Yang	Beijing Huadian Energy Internet Research Institute Co., Ltd.	Optimization strategy for virtual power plant participation in demand response scheduling considering electric vehicle aggregation
51	263	Cunqiang Huang	Economic Research Institute of State Grid Qinghai Electric Power Company	Joint Planning Method for Intelligent Soft Open Point and Energy Storage in Distribution Network Based on Improved DC Power Flow
52	267	Yuanzheng Hu	NARI Technology Co., Ltd.	Privacy-Preserving User-Side Load Forecasting
53	268	Jinying Wang	Department of Electrical Engineering North China Electric Power University	A Stackelberg Game Model for Photovoltaic and Energy Storage Charging Station groups participate in the Day-ahead Electrical Market
54	270	Yue Zhang	Zhenjiang Power Supply Company, State Grid Jiangsu Electric Power Co., Ltd	Improved Fluctuation Suppression Control for the Grid-connected Converter of Distributed Generations
55	271	Zhu Dongsheng	Jiangsu Electric Power Design Institute Co., Ltd.	Benefit Evaluation Model of Energy Storage In the Energy Market Considering the Impact of the Stage of Charge
56	273	Sun Xiaoyan	Beijing, China	Insulator Condition Monitoring Based on TMR Leakage Current Sensors

57	274	Yuanyuan Zhu	Changzhou University, School of Mechanical Engineering and Rail Transi	Soft Faults Diagnosis Based on LightGBM in Lithium-ion Battery Module
58	277	Qianxu Zhang	College of Renewable Energy, Hohai University Hohai University Nanjing, China	Evaluation and application of regulating capacity of small hydropower operated in conjunction with distributed photovoltaic
59	278	Zhaohang Ma	School of Electrical and Power Engineering Hohai University Nanjing, China	Study on the Impact of Leading Reservoir on the Daily Regulation Capacity of Cascade Small Hydropower Stations
60	281	Shuhan Lu	School of Electrical and Electronic Engineering Huazhong University of Science and Technology	Research on the renewable power phase-locked stability considering the influence of reactive power compensation device
61	282	Xiao Lu Cao	Henan Jiuyu Epri Electric Power Technology Co., LTD	Research on Transient Equivalent Modeling Method for Large-scale Distributed Photovoltaic in Distribution Networks
62	284	Guolin Xu	School of Electrical Engineering, Shandong University	Frequency Regulation Control Strategy of Over-Speed Wind Turbines Considering Optimal Operation Point
63	285	Shiqi Zhao	Shandong University	Optimization of Wind-Storage Integrated Grid Power Target Considering Energy Storage Capacity Requirements
64	287	Yue Mei	Southeast University	Wideband Oscillation Identification Method in Power System Based on Relaxation Algorithm
65	289	Ting Ren	Nanjing SAC Power Grid Automation Co., Ltd. GUODIAN NANJING AUTOMATION CO.,LTD.	preliminary exploration of fault diagnosis strategy for overhead transmission lines in DC power grid
66	290	Hao Sun	Hohai University	Collaborative optimization of capacity scheduling for near zero-carbon public building co-generation system

67	291	Zhuxin Ma	Xi'an Jiaotong University	Spatiotemporal Distribution of Electric Vehicle State of Charge Based on Travel Chains and the Gravity Model
68	293	Ma Wenwei	DFH Satellite Limited Corporation	Modeling and Stability Analysis for Weinberg Converter Using Peak Current Control Mode
69	294	Han Tang		A Novel Lightweight Group Convolutional Neural Network Architecture For Inter-Turn Short Circuit Fault Diagnosis Of Induction Motors
70	295	Xusheng Guo	National·Key·Laboratory of·Renewable·Energy·Grid-Integration, China Electric Power Research Institute	Accommodation Evaluation Method for Renewable Energy Power Systems Based on Lagrange Soft Actor-Critic Deep Reinforcement Learning

Session Topic 3

Date: Oct. 26, 2024

Chairs: Qi Wang, Yizhou Zhou, Chong Wang, Qingsong Zhang

Time: 15:20-16:00

Stand No.	Paper ID	Author	Affiliation	Title
1	296	Junjie Huan	Shanghai University of Electric Power	Electric Vehicle Load Forecasting based on Time Series Decomposition and CPIKS Module
2	297	Su Guo	Hohai University	A Comprehensive Methodology for Calculating Optical Efficiency and Corresponding Heat Flux in Concentrated Solar Power System
3	298	Baohua Wang	Nanjing University of Science and Technology School of Automation	Research on High Frequency Distance Protection for Wind Power Grid Connection with Thyristor Controlled Series Compensation

4	299	Cihai Qin	State Grid Shanghai Municipal Electric Power Company	Review on frequency stabilization of power grid supported by renewable energy in the context of new type power system
5	301	Zhenfu Zhang	Hunan Electric Power Design Institute Co., Ltd.	AN OPTIMIZATION ALGORITHM FOR POWER SUPPLY OF CLEAN ENERGY HEATING UNDER HIGH PENETRATION RENEWABLE ENERGY
6	302	Taolue Shen	The University of Queensland	On Synchro-Waveform Data Analytics for High Impedance Fault Identification in Distribution Networks
7	305	Renxiang Hu	Turpan Power Supply Company of State Grid Xinjiang Electric Power Co.	Hydrogen Gas Detection System in Transformer Oil Based on Big Data Analysis
8	306	Huiwen Zhao	Nanjing Institute of Technology	Convex hull-based construction method of the distributionally robust flexibility operation region model for a photovoltaic-storage DC flexible system
9	308	Kangyi Li	State Grid Zhejiang Electric Power Co., Ltd. Shaoxing Power Supply Company	Load Forecasting Based on Weather Forecast Correction and Cumulative Temperature Index
10	309	Chao Li	Huazhong University of Science and Technology	Hierarchical Coordinated Control Method for Hydrogen-Electric Hybrid Energy Storage System Based on Model Predictive Control
11	310	Md Tasbirul Islam	King Fahd University of Petroleum and Minerals (KFUPM)	Waste battery recycling from electric vehicles in Saudi Arabia: A futuristic policy perspective
12	311	Fernando Maleesha	SLIIT	Elevating Efficiency and Sustainability in Large- Scale Coconut Oil Manufacturing through Progressive Strategies
13	313	Jinglong Jia	Shanghai Jiao Tong University	Transformer Monitoring Data Cleaning Method Based on GMM and BiGRU

14	314	Ye Wang	State Grid Jiangsu Electric Power Co.,Ltd	Multi-source Information Acquisition and Modeling Technology of Converter Station for Fault Intelligent Diagnosis
15	315	Ang Qi	College of Electrical Engineering and Automation; Shandong University of Science and Technology	Stochastic Multi-Objective Optimal Dispatching Method for Improving Wind Power Accommodation Ability
16	316	Yiwei Feng	Lanzhou University of Technology,China	Distributed Secondary Control for DC Microgrid with Dynamic Event-Triggered Strategies
17	317	Xingying Chen	Hohai University	Energy Storage Configuration Method for Industrial Parks Considering Profit Maximization
18	319	Zaib Ullah Khan	Hohai University	A Facile Synthesis of Co-doped ZnO/rGO Nanomaterials for Energy Storage Applications
19	320	Abdullah Abduljabbar	HBKU	Digital twin of medium voltage grid network using real-world synchronized PMU dataset with AI-based modelling and data analytics
20	324	Qinghui Zeng	Foshan Power Supply Bureau of Guangdong Power Grid Co., Ltd.	Research on distributed photovoltaic access scheme of high permeability distribution network based on three-layer decision model
21	325	Ziheng Yan	GUODIAN NANJING AUTOMATION CO.,LTD.	Operational Behavior Diagnosis of Protective Relays Based on Temporal Convolutional Network
22	327	Lijun Liu	State Grid Jilin Marketing Service Center	EvoK-Means: A Differential Evolution Optimized K-Means Algorithm for Clustering Electric Power Consumption Patterns
23	329	Zhuo Gao	College of Electrical Engineering & Control Science, Nanjing Tech University	Research on Polymerization Control Strategy of Virtual Power Plant for System Scheduling Requirements
24	330	Xiaoxuan Guo	Electric Power Research Institute Guangxi Power Grid Company, Nanning, China	Scheduling Strategies for Shared Energy Storage in Distribution Substation Areas

25	331	Zhenfeng Liang	School of Electrical Engineering Xi'an University of Technology	Research on Feeder Zero Sequence Overcurrent Protection Adaptive to Network Topology Changes
26	333	Jisen Li	State Grid Beijing Miyun Electric Power Supply Company	Load forecasting method based on stacking ensemble learning under multiple meteorological factors
27	334	Chuan Liu	State Grid Beijing Miyun Electric Power Supply Company	Power supply vehicle scheduling method based on multi-agent reinforcement learning with shared attention
28	337	Guang Chen	State Grid (Suzhou) City&Ehergy Research Institute	A Review on Modeling Methods of Data-Driven Demand-Side Virtual Power Plant Adjustable Potential
29	338	Xudong Song	School of Electrical and Power Engineering Hohai University	Schedule optimization for new power base considering the reliability of outgoing transmission
30	339	Menglu Li	School of Electrical and Power Engineering Hohai University	A short-term optimization model of wind-photovoltaic-hybrid pumped storage considering the capacity limitation of transmission lines
31	342	Junpeng Zhu	Hohai University	Linear Programming Method for Distribution Network Fault Recovery Based on Dynamic Switching Technology
32	343	Taiyu Gu	Electric Power Research Institute, State Grid Liaoning Electric Power Company	Distribution Network Terminal Modeling Based on IEC 61850/IEC CIM and Communication Design Scheme Using Industrial IoT Protocols
33	344	Luhao Wang	University of Jinan	P2P energy trading among microgrids under partial-decision information
34	346	Luhao Wang	University of Jinan	Multi-Objective Coalitional Game for Energy Trading Among Multiple Microgrids
35	347	Xiangjing Su	Shanghai University of Electric Power	A Novel AC/DC Power Flow Algorithm Considering MMC-HVDC Connected Offshore Wind Farms and System Regulation Characteristics

36	349	Yanping Wu	China Electric Power Research Institute	Research on High-frequency Signal Monitoring Scheme and Key Technology for Near HVDC Converter Station
37	350	Xun Xi	School of electrical engineering Southeast University	Day-ahead Temporal Scenario Generation and Quality Evaluation of Photovoltaic and Loads Based on Volatility Interval Correction
38	351	Xiaowen Wang	shanghai electric power design Institute Co., Ltd	The Reactive Compensation Optimization Configuration Scheme for Offshore Wind Farm AC Transmission System
39	352	Guo Jikun	Southeast University	Study on the Safety of Power Frequency Electromagnetic Exposure from High-Voltage and UltraHigh-Voltage Transmission Lines
40	355	Ying Fan	State Grid Shanghai Electric Power Company	Operational strategy of virtual power plant for participating in coupled peak-shaving and carbon markets
41	360	Zhi Wu	School of Electrical Engineering, Southeast University	A Two-Stage P2P Market Mechanism Considering the Uncertain Electricity Price of Distribution Network
42	361	Li Xia Sun	Hohai University	Multi-stage Dynamic Partitioning Method for Receiving-end Grid based on Voltage Steady and Transient State
43	363	Cheng Ma	Hohai University	Low Carbon Economic Dispatch of Integrated Energy System Considering Demand Response and Carbon Capture Under Stepped Carbon Trading
44	365	Yifan Zhang	Nanjing Normal University School of Electrical and Automation Engineering	Research on Energy Management Strategy of Integrated Photovoltaic and Energy Storage Power Station
45	367	Qilong Huang	Nanjing University of Science and Technology	Charging-Constrained Microgrid Operation Enhancement based on Uncertain Demand Response
46	371	Wen Zhao	Zhejiang Electric Power Trading Center Co., Ltd	Challenges and Coping Strategies for Green Power Environmental Value Accounting Transfers

47	372	Zhaoli Leng	Zhejiang Electric Power Trading Center Co., Ltd	A Study on Risk Evaluation of Information Disclosure in Provincial Electricity Markets
48	373	Jianfa Wu	Economic and Technological Research Institute State Grid Fujian Electric Power Co., Ltd. Fuzhou, Fujian, China	Evaluating the Effects of Green Credit Guidelines on Corporate ESG Performance Through a Double Machine Learning Approach
49	374	Yang Hu	North China electric Power University	Clustering of temperature measurement points for key components of offshore wind turbines considering spatiotemporal multi-modality characteristics
50	375	Bo Wang	Hohai University	Two-Level Utilization of LNG Cold Energy for Port-Multi Energy Microgrid Management
51	376	He Jie	State Grid Electric Power Research Institute	Unified Simulation and Verification Technology for Primary and Secondary Control in Power Systems Based on Digital Stable Control Systems
52	377	Feixiong Chen	College of Electrical Engineering and Automation Fuzhou University	An Affine Arithmetic-based Optimization Method of Integrated Electricity-Gas System Considering Multiple Uncertainties
53	379	Wenhua Ni	School of Electrical and Power Engineering.Hohai University	Key Technologies Review for New-type Power Sysytems
54	381	Bin Yang	Hebei University of Technology	An Adaptive Reclosing Method For Distribution Networks Based on Active-Passive Fault Detection
55	383	Wei Wang	Huazhong University of Science and Technology	A Comprehensive Market Power Analysis Method Based on Principal Component Market Power Index
56	385	Di Niyaer	State Grid Xinjiang Electric Power Co., Ltd. Electric Power Research Institute	Intelligent Diagnosis of GIS Disconnector Faults Based on Multi-Information Fusion

57	386	Jufeng Yang	Jiangsu University	A Robust Lithium-ion Battery SoH Estimation Method Using Refined RC-network ECM and SVR
58	387	Dan Wang	State Grid Fuxin power supply Company	Cooperative Economic Dispatch of Mobile Energy Storage
59	390	Enze Shao	Jiangsu Frontier Electric Power Technology Co.,Ltd	A Carbon Emission Projection and Prediction Method Based on LSTM and ARDL Models for Multiple Emission Sources
60	391	Xiaofei Sun	School of Electrical Engineering, Shandong University	Study on Reactive Power Response Characteristics of Grid-Forming Renewable Energy Systems with Virtual Internal Potential
61	392	Enze Shao	Jiangsu Frontier Electric Power Technology Co.,Ltd	Technique for Constructing Carbon Emission Flow of Electric-heat Synergy in Integrated Energy
62	393	Peng Guo	China Renewable Energy Engineering Institute	Research on Optimization Scheduling of the Cascade Hydro-Wind-Solar-Storage complementary system Towards Clean Energy Consumption
63	395	Ruisheng Diao	ZJU-UIUC Institute	Day-ahead Optimal Dispatch of Multi-Integrated Energy Systems Considering Uncertainties Based on Nash Bargaining Approach
64	396	Liangliang Hao	Beijing Jiaotong University	Optimization Schemes for Auxiliary Power to Enhance the Generator Leading Phase Capability
65	400	Anthony Kristianne Tang	University of the Philippines - Diliman	Development of a General Framework for Interconnection of Philippine Islands to Main Grid
66	401	Feixiong Chen	College of Electrical Engineering and Automation Fuzhou University	Regional Carbon Emission Measurement Method Based on Carbon Emission Flow Theory
67	403	Shilin Gao	College of Electrical Engineering, Sichuan University	Hierarchical System Commutation Failure Prevention Method for UHVDC Based on Turn-off Area and Commutation Current Area Criteria

68	404	Yafei Wang	State Grid Jiaozuo Electric Power Supply Company	Load curve classification method based on convolutional neural network
69	407	Shengnan Zhao	University of Jinan	Distribution network operating state diagnosis method based on uncertainty propagation theory
70	408	Zhihan Liu	State Grid Jiangsu Electric Power Co., Ltd.	Fault Location Technology of DC Control and Protection System Based on Deep Learning

Session Topic 4

Date: Oct. 26, 2024

Chairs: Jinpeng Guo, Xingwei Zhou, Jiu Zhu, Qiang Qian, Junjie Hu

Time: 16:15-16:55

Stand No.	Paper ID	Author	Affiliation	Title
1	409	Xingong Cheng	University of Jinan	A Lean Investment Method for User-Side Energy Storage Based on Energy Performance Contracting
2	412	Shijie Yao	The University of Queensland	An Improved Power Transformer High Frequency Model for Transient Overvoltage Studies
3	411	Hanxuan Liu	Hohai university	Optimized Scheduling of Water-photovoltaic-pumped Storage at Multiple Time Scales Considering Pumped Storage Participation
4	413	Rui Yang	School of Electrical and Power Engineering, Hohai University	Power system state estimation guided by neural network considering power flow constraints
5	419	Zhaoqing Zhang	School of Electrical and Power Engineering Hohai University	Low-carbon optimization dispatch of multi-integrated energy system based on kriging metamodel and Stackelberg game

6	422	Yifu Liu	School of Electric Power Engineering, South China University of Technology	A single-ended intelligent fault location method for flexible DC overhead line and cable hybrid transmission line
7	425	Sang Xu	Huazhong University of Science and Technology	Adaptive Aperiodic and Periodic Disturbances Observer Based on Enhanced LESO for Speed Fluctuation Suppression of PMSM
8	426	Chaoqun Lu	state grid xuzhou power supply company	Rural Household Distributed Photovoltaic in City Z： Impact, Challenges and Policies
9	430	Xubin Xing	Zhuhai Power Supply Bureau of Guangdong Power Grid Co.	Research on voltage regulation strategy for full cable distribution networks considering user voltage and power quality
10	431	Tiance Zhang	North China Electric Power University	Capacity Optimization of Renewable Energy Generation System with Pumped-Hydrogen Coupling Energy Storage
11	433	Yuhan Shi	School of Naval Architecture,Ocean and Energy Power Engineering, Wuhan University of Technology	A resilience boosting approach for distribution networks considering multiple distributed resources
12	434	Lizhi Dong	China Electric Power Research Institute	Research on The Primary Frequency Regulation Control Method of Hybrid Flywheel Array Collaborative New Energy Power Station
13	437	Yajun Zhou	China Electric Power Research Institute	Mechanism for energy sharing of electric vehicles incorporating supply-demand ratios and subject preferences
14	439	Chao Zhang	Hunan University	Magnetically Controlled Shunt Reactor Configuration Method Based on Single-Infeed Renewables-Integrated Effective Short Circuit Ratio
15	442	Xin Li	School of Naval Architecture,Ocean and Energy Power Engineering ,Wuhan University of Technology	Assessment of State of Health in Multi-Batch Retired Lithium Batteries Using an Equivalent Circuit Model

16	443	Meiqin Mao	Research Center for Photovoltaic System Engineering.MOE, Hefei University of Technology	Distributed Transactive Energy Control of Electric Vehicles Based on Blockchain and Oracle Technology
17	447	Shangyang He	Department of Electrical and Electronic Engineering (EEE), The Hong Kong Polytechnic University	Allocating the Power Module for Future EV: a Constraints Learning Approach
18	448	Ying Le	Research Institute Co., Ltd. Huadian Electric Power	Optimized operation of integrated energy system considering the characteristics of ice storage air conditioning and building area energy storage
19	449	Dongsen Li	Department of integrated energy system, China Energy Engineering Group, Jiangsu Power Design Institute Co., LTD.	Optimized Deloading Operation of Wind Turbine Generator in Virtual Power Plant Considering Forecast Error and Carbon Trading
20	450	Zexing Miao	College of Energy and Electrical Engineering, Hohai University	Investigating the Regulatory Potential of Virtual Energy Storage in Ice Thermal Storage Air Conditioning Loads
21	451	Minghu Liu	Energy sales Co., Ltd. Shandong Huadian	A Hierarchical Collaborative Optimization Strategy for Integrated Energy Systems
22	452	Tianyi Zhu	college of automation engineering,Nanjing University of Aeronautics and Astronautics	AC-DC Integrated Starting/Generation System of Double-Winding Induction Generator Based on Flux Orientation Control
23	453	Jiahui Fan	Nanjing University of Posts and Telecommunications	Optimal configuration of wind-photovoltaic-storage-electric vehicle capacity in distribution network based on non-cooperative game
24	454	Qiang Guo	State grid Changyi power supply company	Load Forecasting with Extreme Weather based on ImTimeGAN-CGBM Architecture
25	458	Shoufu Shao	Energy sales Co., Ltd. ShandongHuadian	Optimization of Low-Carbon Scheduling for Integrated Energy Systems Considering Green Certificates and Carbon Trading Mechanisms

26	460	Yang Du	State Grid Shanghai Electric Power Company	Peak time response of self-contained power supply in demand response mode
27	461	Ziyin He	Wuhan University of Technology	A Review of Electric Vehicle Aggregator Participation in Multi-market: Bidding, Clearing and Scheduling
28	462	Difei Tang	Electrical and Automation Engineering, Nanjing Normal University, Nanjing, China	Optimization Strategy for Multi-Microgrid Scheduling Considering Hydrogen Logistics
29	464	Chao Dai	Hohai University	Effect of cooling rate on the dielectric properties of polypropylene for cable insulation
30	465	Liu Yuming	Electric Power Research Institute, China Southern Power Grid	MMC-HVDC resonance suppression strategy based on co-optimization of voltage feedforward and current inner loop
31	467	Liu Han	Hohai UniversitySchool of Electrical and Power Engineering	Research on Wireless Power Transmission System based on Non-uniform Switchable Transmitting Coil Array
32	468	Yan Li	NARI Group (State Grid Electric Power Research Institute) Co., Ltd	Research and application of GOOSE in digital pumped storage power stations
33	469	Jiang Jing	State Grid Economic and Technological Resrearch Institute Co.,Ltd	Research on Photovoltaic Interval Prediction Method Based on Meteorological Correction and Transformer
34	471	Lei Gan	School of Electrical and Power Engineering, Hohai University	Microgrid Feasible Domain Construction based on Redundancy Constraint Identification
35	472	Jiaxun Li	Tsinghua University	Distribution-level Flexibility Market for Congestion Management of Distribution Networks Considering Responsiveness Uncertainties of Electrical Vehicles
36	473	Liu Han	Hohai University School of Electrical and Power Engineering	Research on Wireless Power Mutual Replenishment System for Dual Unmanned Aerial Vehicles Based on Runway-type Relay Coil in Ground-side

37	474	Yonghui Sun	College of Artificial Intelligence and Automation-Hohai University	Adaptive model predictive control for combined wind-storage system participating in frequency regulation
38	475	Yuzhuo Fu	Helmut-Schmidt-University	Pattern Blending through Label Interpolation for Smart Meter Data Augmentation with Conditional Generative Adversarial Network
39	476	Guanbiao Huang	CSG Electric Power Research Institute	Design Method for Distributed Database Storage Architecture of Power Grid Based on Efficiency-Cost Optimization Model
40	477	Fu Shen	Kunming University of Science and Technology	Current Harmonics Suppression of a Grid-connected PV-integrated with Energy Storage System
41	478	Shasha Li	State Grid Electric Power Research Institute	State Estimation in Smart Grids Using Spatio-Temporal Graph Convolutional Networks
42	479	Haiyan Wu	CSSC Jiujiang Marine Equipment (Group) Co., Ltd.	Three-Dimensional Simulation of Temperature Rise of a Prototype Conductor in 35kV Offshore Single-Point Mooring Device
43	480	Yang Zhou	Anhui University of Technology	A Rotor Structure Designed for Low Noise Emission
44	482	Shuyan Liu	Hunan University	Study on Optimal Power Flow of Power System Considering Carbon Emission Flow and Deep Peak Shaving
45	483	Jie Gao	China Renewable Energy Engineering Institute	Research on Simulation and Prediction of Photovoltaic Power Generation based on Machine Learning and Similar Day Optimization
46	485	Yu Zhang	Huazhong university of science and technology	Distributed Event-Triggered Coordinated Voltage-Constrained and Current-Sharing Control for Islanded DC Microgrids
47	486	Linjun Zhou	College of Electrical and Information Engineering	Multi-objective optimization analysis of fuel pump motor for special vehicles

48	487	Jinming Xu	College of Automation Engineering Nanjing University of Aeronautics and Astronautics	Small-Disturbance Stability Improvement of Weak Grid-Connected Photovoltaic Power Plant Based on Grid-Forming Controlled Converters Partial Substitution
49	489	Tao Shen	College of Electrical Engineering, Guizhou university	Frequency Coordination Control of Multi-Area Power Systems Based on Multi-Agent Deep Reinforcement Learning
50	490	Guicheng Yang	PowerChina Huadong Engineering Corporation Limited	Research on the Automatic Coding System for 3D Models of Pumped Storage Power Stations
51	493	Ren Liu	China Southern Power Grid	Research on Cross-Space Propagation of Cyber Security Risks in Cyber Physical Power Systems Based on State Transition Machines
52	496	Zelun Sun	NARI Group Corporation (State Grid Electic Power Research Institute)	Online verification method for power grid frequency security considering multi-time scales frequency modulation characteristics
53	498	Kanghui Gu	China Energy Engineering Group Jiangsu Power Design Institute Co., Ltd	Stability Analysis of Multi-Terminal Direct Current in an Actual Power Grid Based on Electromechanical-Electromagnetic Hybrid Simulation
54	499	Wenxin Wu	School of Electrical and Power Engineering，Hohai University	Enhancement Method for Hosting Capacity of Distribution Network through Utilizing Flexible Resources
55	500	Junliang He	Anhui Longyuan New Energy Co., Ltd	Capacity Configuration of Distributed Wind Storage Systems Considering Random Scenarios
56	502	Xiaolin Li	School of Electrical Engineering Shandong University	Optimal Operation of Electro-Thermal-Hydrogen System Based on Refined Hydrogen Storage Modeling
57	503	Mohan Zheng	Shanghai University of Electric Power	Long-short Term Optimal Configuration For Hydrogen Battery Energy Storage System In Multi-Microgrids With Heterogeneous Sources

58	504	Xian Xiao	Jincheng Nanjing Engineering Institute of Aircraft System	A Contrastive Analysis of SAE APR 4754 Revision B and Revision A
59	505	Xiaoyu Zeng	Xi'an Jiaotong University	Aggregating and Scheduling Flexibility of Multiple Flexible Resources for Distribution Network: A Feasible Region-Embedded EMPC Method
60	509	Hongsheng Xu	Hohai University	Reconstruction of Load Response Behavior Based on Multi-Agent Generative Adversarial Imitation Learning
61	510	Yufeng Yang	NARI Group Corporation	User side resource electricity consumption guidance strategy based on satisfaction matching
62	511	Zhiming Chen	Institute of Economic and Technology of State Grid Fujian Electric Power Co., Ltd.	The evaluation method of tunable potential of electric vehicle considering multi-time-step coupling
63	514	Zheng Limengqian	Hunan University	Comparative Study on Different Wind Power Prediction Algorithms Based on Comprehensive Performance Evaluation
64	515	Yuxiong Huang	Xi'an Jiaotong University	Risk Assessment Method for Power and Electricity Balance in New Power System Based on Multi-time-scale Chronological Production Simulation
65	516	Xiao Zhang	State Grid Xuzhou Power Supply Company	Interactive Scheduling of Virtual Power Plants and Distribution Grids Considering Risk Constraints
66	518	Na Lei	State Nuclear Electric Power Planning Design& Research Institute Co.,Ltd	Optimisation of a multi-energy complementary integrated energy system with hydrogen-mixed natural gas and biomass energy
67	521	Xiang Wu	School of Electrical Engineering, China University of Mining and Technology	Maximum Torque Per Ampere Operation for IPMSM Based on Sliding-Mode Extremum Seeking Control
68	523	Yihuan Liu	Lanzhou University of Technology	Day-ahead Multi-objective Stochastic Optimization Scheduling for Residential Communities

				Considering Demand Response
69	526	Chen Chen	State Grid Jiangsu Electric Power Co.,Ltd. Economic Research Institute	Status and Suggestions for New Energy Industry in Jiangsu under New-Type Power System
70	527	Yang Shi	School of Electrical Engineering Shandong University	Research on Enterprise Low-carbon Evaluation Index Based on AHP-entropy Weight Method

Session Topic 5

Date: Oct. 26, 2024

Chairs: Yujing Guo, Junpeng Zhu, Ping Jin, Huiling Su

Time: 17:10-17:50

Stand No.	Paper ID	Author	Affiliation	Title
1	528	Yehao Yuan	Peking University	Strategic Allocation of Aggregator Interests Considering of External Power Transmission
2	531	Yan Huang	School of Information Science and Technology, Peking University	Medium-Term Jointly Load Forecasting via An Enhanced KAN-based MTL Framework
3	532	Siyuan Liu	Xi'an Jiaotong University	Research on Microgrid Bilevel Optimization Scheduling Considering the Uncertainty of Renewable Energy and Carbon Emissions in the New Power System
4	533	Jingxuan Sun	School of Electrical Engineering of Shandong University	An Improved LVRT Strategy for Overvoltage Supression of Sending-End Grid-Forming Converter Station
5	535	Fan Chen	Nanjing Institute of Technology	An Economic Optimization Scheduling Method for Photovoltaic Storage Charging Stations Based on Improved Proximal Policy Optimization Algorithm

6	536	Yang Jingru	Nanjing University of Information Science and Technology	Based on the IWOA-BiGRU-A-DKDE ultra-short-term PV power interval prediction
7	537	Rui Ye	China Electric Power Planning & Engineering Institute, Beijing	Charging Load Forecasting of Highway Infrastructure Considering Spatiotemporal Coupling
8	538	Haoyu Wang	Beijing Institute of Technology	Battery State of Health Estimation for Real-world Vehicles Based on Ensemble Learning
9	540	Ziqi Wang	Beijing Institute of Technology	A novel battery RUL prediction approach based on probabilistic hyperparameter optimization
10	542	Yifan Duan	Xi'an Jiantong University	Optimal Operation Strategy of Park-level Integrated Energy Systems Considering Carbon Trading
11	543	Xianchen Zhao	Qujing Bureau of EHV Transmission Company	Ice-melting Frequency Calculation of DC ground wire Combining Characteristic Harmonics
12	545	Shuyang Wang	China Electric Power Research Institute	Peak Shaving Value Assessment for New Entities Participating in Power Ancillary Service Market for Load-side Virtual Power Plant
13	546	Tao Xu	School of Control Science and Engineering, Shandong University	Common Mode Circulating Currents Suppression and Power Distribution Methods of Parallel SOPs
14	547	Na Li	North China Electric Power University	Optimal Operation Strategy of Aggregated Multiple Flexible Resources in Power Balance Unit
15	548	Fengtao Li	Nanjing Normal University	Short-Term Power Consumption Dynamic Forecasting Using Optimal Weighting Combination
16	549	Tao Xu	Shandong University	Control Method and Optimization Design of SOP-Storage-Charging Integrated Equipment
17	550	Chen Jinfan	Hohai University	Mid/long-term Energy Management for Zero-carbon Buildings Considering Weather Conditions and Energy Use Schedule

18	551	Guicheng Yang	PowerChina Huadong Engineering Corporation Limited	Vibration Trend Prediction of Pumped Storage Unit based on VMD, SSA and Optimal KELM
19	552	Sheng Zhou	School of Electrical Engineering, Zhejiang University	Optimal scheduling of high proportion renewable energy systems considering the responsiveness of user-side energy storage clusters
20	555	Longpeng Ma	TODE, Technology of Digital Energy	Time Series Production Simulation Based Limits Locating Method of RERs Accommodation
21	556	Xiao Zhang	STATE GRID XUZHOU POWER SUPPLY COMPANY	A grid resilience enhancement approach considering cascading failures due to reduced carrying capacity under extreme ice disasters
22	560	Lei Fu	State Grid Hunan Electric Power Co., Ltd. Technical Skills Training Center	A distributed photovoltaic power anomaly perception method based on nuclear principal component-OPTICS cluster division
23	561	Naishuang Li	NARI Group Corporation(State Grid Electric Power Research Institute)	A Calculation Method for Power Limit of Transmission Section Based on Knowledge Graph
24	562	Wenhao Zhang	Tongji University	Optimal Layout of Multiple Distributed Energy Storage Systems in Active Distribution Networks Considering System Uncertainties
25	563	Jiacheng Zeng	NARI Group Corporation(State Grid Electric Power Research Institute)	The Interactive Coupling Between Power Control Loops In Grid-Forming Inverter Based on Spring-Damper Oscillator Model
26	565	Shu Wang	NARI Technology Company , LTD.	Adaptive Impedance Design for VSG in Variable Speed Pumped Storage Hydropower Converters Under Strong Grids
27	567	Xiaoyu Gu	School of Electrical and Power Engineering, Hohai University	Research on the Optimal Allocation of Pumped Storage Capacity in Qinghai Region Considering Sequential Development
28	568	Ningkai Tang	NARI Group Corporation（State Grid Electric Power Research Institute）	On Fast N-1 Contingency Analysis: A Graph Neural Network Approach

29	569	Peidong Li	State Grid Economic and Technological Research Institute Co.	Research on the Function Roles of Variable-Speed Pumped Storage Based on Time-Series Production Simulation
30	575	Jianxin Tan	HCIG New-energy Co., Ltd.	Impedance-based Adaptive Subsynchronous Oscillation Damping Controller
31	576	Shuzheng Wang	School of Electrical Engineering Nanjing Institute of Technology	Mining Method of SER Fault Event Set in Converter Station Based on Improved Association Rule Algorithm
32	577	Youqi Ni	School of Electrical and Power Engineering Hohai University	A Non-Intrusive Electric Load Component Identification Method Based on Event Detection
33	578	Ying Wang	School of Electrical Engineering Beijing Jiaotong University	Urban Power Grid Planning with Nested Microgrids: Ensuring continuous Power Supply to Critical Loads under Extreme Events
34	583	Vinit Kumar	Chandigarh university	An Intelligent System for Vehicle Collision Avoidance System Using the Internet of Things
35	587	Yewei Wang	School of Electrical Engineering Southeast University	Construction and Application of SCADA System Knowledge Graph Based on Multi-source Data Fusion
36	588	Yuanyuan Wang	Southeast University	A WT-LSTM Approach for Reactive Power Load Forecasting with Active Power Load Integration
37	589	Xuexuan Lu	School of Electrical Engineering Northeast Electric Power University	Wind Power Penetration Limitation Calculation Considering Grid-Forming Type-based Wind Turbine Generator Under Frequency Constraints
38	590	Di Niyaer	State Grid Xinjiang Electric Power Co., Ltd. dept. of Electric Power Research Institute.	Intelligent Method for Identifying the Switching States of a Disconnector Based on Transient Enclosure Voltage Characteristics in GIS
39	591	Yingyao Zhang	College of Electronics and Information Engineering Tongji University	Dynamic Response Analysis of High-Voltage Transmission Tower-Line System

40	592	Jiangang Ding	Electric Power Research Institute, CSG	Influence of Current Limiting Resistor on the Breakdown Development Process of Vacuum Gaps
41	593	Weiji Han	Shanghai Jiao Tong University	Multi-Stage Battery Charging Scheduling Optimization at Battery Swapping Stations
42	594	Congyi Wang	Institute of Electrical and Electronic Engineering North China Electric Power, North China Electric Power University	Market-based versus non-market-based mechanisms: external value assessment of distributed photovoltaic
43	595	Yingyao Zhang	College of Electronics and Information Engineering Tongji University	Research on End-to-End Text Spotting Algorithm for Power Equipment Nameplate Images
44	596	Jinfei Meng	Tianjin University	Adjustable Potential Analysis of Cleanrooms For Pharmaceutical Industries
45	597	Yanzhang Liu	China Electric Power Research Institute	Validation Method of Coordinated Operation strategy for Integrated Source-Network-Load-Storage Projects in Power Systems
46	598	Zhaojun Meng Meng	Beijing Chuangtuo International Standard Technology Research Institute Co., Ltd.	An investigation on the International Standardization for the Grid Integration of Hydrogen Production and Storage Systems
47	599	Fuwu Li	Turpan Power Supply Company of State Grid Xinjiang Electric Power Co.	Transformer Oil Chromatography Fault Detection System Based on Raman Technology
48	600	Shi Tiancheng	Economic and Technical Research Institute State Grid Anhui Electric Power Co., Ltd.	Techno-Economic Selection of Multi-Scenario DC Distribution Voltage Level Sequences for Future Power Grids
49	601	Chengsheng Zhang	Institute of Economic and Technology of State Grid Fujian Electric Power Co., Ltd.	Comparison of the Patterns of Electric Vehicle Participation in Various Electricity Markets

50	602	Yang Li	China Nuclear Power Engineering Company CO., LTD	Comparative Analysis of Lighting System of CAP1000 and HPR1000
51	603	Xiaowen Wu	State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University	Growth characteristics of plasma electrolytic oxidation ceramic insulating film on the surface of high-temperature resistant wire
52	604	Min Wang	Hohai University	A Review on State Estimation Techniques inAC/DC Hybrid System
53	605	jiantao Li	Power Dispatching Control Center Guangxi Power Grid Co., Ltd.	Research on the System Scheduling Strategy of Elec tric Heating Load with Carbon Price
54	606	Yang She	State Grid Shanghai Electric Power Company	Considering the peak time response of users' self-provided power sources in the electricity market
55	607	Ruoying Yu	Renewable energy Research Center, China·Electric Power Research	Demand Analysis of DPV Participating in Power Balance with Consideration of Prediction Confidence Intervals
56	608	Yu Cui	State Grid Jiangsu Electric Power CO., LTD.	Research on multi-scenario new energy storage grid-connected operation systems
57	609	Liangxi Guo	Hohai University	Bi-level Optimal Scheduling for Peak Shaving and Carbon Reduction Based on Building Photovoltaic and Energy Storage Systems
58	610	Yayu Zhang	Department of Electrical Engineering, Shanghai Jiao Tong University	Cost-Driven Regulation and Configuration of Energy Storages Providing Fast Frequency Response for Large-Scale Wind Farm Integration
59	611	Yayu Zhang	Department of Electrical Engineering, Shanghai Jiao Tong University	Storages' Primary Frequency Regulation for Wind Farms' Large-scale Integration into the Power Grid