



5<sup>th</sup>

**ICEPG 2023**

# 第五届能源、电力与电网 国际学术会议

2023 5<sup>th</sup> International Conference on Energy, Power and Grid

# 会议手册

## CONFERENCE BROCHURE

主办单位： 华南理工大学

■ 2023年9月22-24日 ■ 中国·广州



### 会议指引

#### Conference Guideline

#### 会场信息 Conference Information

南洋长胜酒店(广州东站天平架地铁站店), 会议中心2层牡丹厅  
酒店地址: 广东省广州市天河区广州大道北兴华路38号

2<sup>nd</sup> floor Peony Hall, Conference Center, Nanyang King' s Gate Hotel  
Address: No.38, North Xinghua Road, Guangzhou Avenue, Tianhe District, Guangzhou City, Guangdong Province

#### 交通信息 Direction

- \* 广州地铁6号线天平架站, 5分钟 (步行)
- \* 广州白云机场35公里, 59分钟
- \* 广州南站28公里, 40分钟
- \* 广州东站2公里, 7分钟
  
- \* Tianpingjia Station on Guangzhou Metro Line 6, 5 minutes (on foot)
- \* Guangzhou Baiyun Airport 35 km, 59 minutes
- \* Guangzhou South Railway Station 28 km, 40 minutes
- \* Guangzhou East Railway Station, 2 km, 7 minutes

#### 时区信息 Time Zone

Time zone in main cities in the world during the conference

地区	当地时间					
北京	09:00	10:00	11:00	12:00	13:00	14:30
圣彼得堡	04:00	05:00	06:00	07:00	08:00	09:30
伦敦	01:00	02:00	03:00	04:00	05:00	06:30

\*会议议程时间为北京时间

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## **会议信息** *Conference Information*



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## **Part 1**

### 会议简介

#### About ICEPG 2023

最近几年，跟随着时代发展的趋势，政府把目光又投向了能源电力领域，对促进新能源发电产业健康发展、电力绿色低碳发展，提出一系列建设性意见和建议。比如，要“构建以新能源为主体的新型电力系统，是我国实现碳达峰碳中和目标进程中的重要任务，新能源发电将成为未来电力供应的主力。”

第五届能源、电力与电网国际学术会议 (ICEPG 2023) 将于2023年9月22-24日在中国广州隆重举行。会议由华南理工大学主办，华南理工大学电力学院、AEIC学术交流中心承办。重庆大学、中国电机工程学会、清华大学、深圳大学、浙江大学、东南大学、北京交通大学、安徽建筑大学、中国城市科学研究会、华北电力大学、上海交通大学、汕头大学、南方电网科学研究院有限责任公司、中国能源建设集团湖南省电力设计院有限公司、云南电网公司科数部、国家电网有限公司、华北分部调度中心、中国建筑标准设计研究院有限公司、中国南方电网电力调度控制中心、国网江苏省电力有限公司、电力科学研究院协办。贵州大学、贵州电网有限责任公司电力科学研究院提供会议支持。

会议主要围绕能源电力与电网等研究领域展开讨论。旨在为能源电力与电网等领域的专家学者及企业发展人提供一个分享研究成果、讨论存在的问题与挑战、探索前沿科技的国际性合作交流平台。拓宽国际科技学术交流渠道，搭建学术资源共享平台，促进全球范围内的科技创新，增进中外学术合作，提升能源电力与电网的发展。大会诚邀国内外高校、科研机构专家、学者，企业界人士及其他相关人员参会交流。



## 会议简介

### About ICEPG 2023

In recent years, many delegates and members turned their attention to the field of energy and power and put forward a series of constructive suggestions and recommendations on promoting the healthy development of the new energy generation industry and the green and low-carbon development of power. For example, "building a new power system with new energy as the main body is an important task in the process of hitting carbon peak and attaining carbon neutrality, and new energy power generation will become the main force of future power supply."

2023 5th International Conference on Energy, Power and Grid (ICEPG 2023) will be held in Guangzhou, China on September 22-24, 2023. ICEPG 2023 mainly focuses on research fields such as energy power and power grid, with an aim to provide international cooperation and exchange platform for experts, scholars, and enterprise developers in the fields of energy, power, and power grids to share research results, discuss existing problems and challenges, and explore cutting-edge technologies. This conference is committed to expanding international scientific and technological academic exchange channels, building a platform for academic resource sharing, promoting scientific and technological innovation on a global scale, enhancing Sino-foreign academic cooperation, and boosting the development of energy, power, and power grids. The conference sincerely invites domestic and foreign universities, experts and scholars of scientific research institutions, business people, and other relevant personnel to participate in the exchange.

## 组织单位

### Organization

#### 主办单位

华南理工大学

#### 承办单位

华南理工大学电力学院

AEIC学术交流中心

#### 协办单位

重庆大学 中国电机工程学会 清华大学 深圳大学

浙江大学 东南大学 北京交通大学 安徽建筑大学

中国城市科学研究会 华北电力大学 上海交通大学

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中国能源建设集团湖南省电力设计院有限公司

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中国建筑标准设计研究院有限公司

中国南方电网电力调度控制中心

国网江苏省电力有限公司电力科学研究院

国网江苏省电力有限公司电力科学研究院

#### 支持单位

贵州大学

贵州电网有限责任公司电力科学研究院

## 组织单位

### Organization

#### Organizers

South China University of Technology

#### Undertakers

School of Electric Power Engineering, South China University of Technology

Academic Exchange Information Center

#### Co-organizers (In No Particular Order)

Chongqing University Chinese Society for Electrical Engineering

Tsinghua University Shenzhen University

Zhejiang University Southeast University

Beijing Jiaotong University Anhui Jianzhu University

Chinese Society for Urban Studies North China Electric Power University Shanghai Jiaotong University

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China Energy Construction Group Hunan Electric Power Design Institute Co., Ltd.

Yunnan Power Grid Corporation Division and Data Department

State Grid Corporation of North China Branch Dispatching Center

China Institute of Building Standard Design & Research Co., Ltd.

China Southern Power Grid Power Dispatching Control Center

Research Institute of State Grid Jiangsu Electric Power Co., Ltd.

Research Institute of China Southern Power Grid Co., Ltd.

#### Supporters

Guizhou University

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**Publication Chair**

Prof. Karim Sebaa, Université de Médéa

### 会议议程

#### Agenda

<b>2023年09月22日 会议签到 (地点: 南洋长胜酒店-会议中心大堂)</b> September 22, 2023 Registration Lobby of Conference Center, Nanyang King' s Gate Hotel	
13:30-17:30	<b>会议签到</b> Registration
18:00-19:30	<b>晚餐</b> Dinner
<b>2023年09月23日 上午会场 (地点: 南洋长胜酒店会议中心二楼牡丹厅)</b> September 23, 2023 Registration 2 <sup>nd</sup> floor Peony Hall, Conference Center, Nanyang King' s Gate Hotel	
08:30-09:00	<b>会议签到</b> Registration
09:00-09:10	<b>开幕式</b> Opening Ceremony
<b>主讲报告 Keynote Speeches</b>	
09:10-09:40	<b>朱继忠, 教授, 华南理工大学</b> Prof. Jizhong Zhu, South China University of Technology
09:40-10:10	<b>冯文杰, 教授, 华南理工大学</b> Prof. Wenjie Feng, South China University of Technology
10:10-10:25	<b>茶歇、合影</b> Tea Break\Group Photo
10:25-10:55	<b>伍洲, 教授, 重庆大学</b> Prof. Zhou Wu, Chongqing University
10:55-11:25	<b>Mahdi Deimi Dasht Bayaz, 高级研究员, ITMO University</b> Senior Researcher, Mahdi Deimi Dasht Bayaz, ITMO University

## 会议议程

### Agenda

**2023年09月23日 上午会场 (地点: 南洋长胜酒店会议中心二楼牡丹厅)**

September 23, 2023 Registration

2<sup>nd</sup> floor Peony Hall, Conference Center, Nanyang King' s Gate Hotel

#### 口头报告 Oral Presentation

<b>11:25-11:35</b>	<b>杨云, 国防科技大学智能科学学院</b> Yun Yang, College of Intelligence Science and Technology, National University of Defense Technology
<b>11:35-11:45</b>	<b>曾凡, 青海大学</b> Fan Zeng, Qinghai University
<b>11:45-11:55</b>	<b>舒文渤, 上海海事大学</b> Wenbo Shu, Shanghai Maritime University
<b>12:00-13:30</b>	<b>午餐</b> Lunch
<b>13:30-18:00</b>	<b>学术考察/返程</b> Academic Investigation/Return

## 详细议程 *Detail Agenda*

## *Part 2*

- 主讲嘉宾 *Keynote Speakers*
- 口头报告 *Oral Presentation*
- 海报展示 *Poster Presentation*
- 会议文章展示 *Paper Presentation*

### 主讲嘉宾

Keynote Speaker



朱继忠教授，华南理工大学

Prof. Jizhong Zhu

South China University of Technology

#### 个人简介:

“国家特聘专家”，华南理工大学教授（IEEE Fellow、IET Fellow、CSEE Fellow），分别于1985年、1987年、1990年2月在重庆大学电气工程学院获得学士，硕士学位和博士学位。现任华南理工大学ISESOOC中心主任、教授，国家海外高层次引进人才。自2018年起他担任IEEE P2781和P2783国际标准工作组主席，IEEE SMC智能电力与能源系统技术委员会委员，IEEE SMC标准委员会委员；曾任IEEE PES SBLC Loads分委会主席，2000-2015年在阿尔斯通电网公司担任高级首席电力系统工程，2013年成为阿尔斯通全球专家委员会院士级专家。

#### Biography:

Jizhong Zhu is a professor of South China University of Technology (IEEE Fellow, IET Fellow, CSEE Fellow) and “National Distinguished Expert”. He received his B.S., M.S., and Ph.D. degrees from the School of Electrical Engineering, Chongqing University in February 1985, 1987, and 1990, respectively. He is currently the director and professor of the ISESOOC Center of the South China University of Technology, serving as a high-level talent introduced by China. Since 2018, he has acted as the Chairman of the IEEE P2781 and P2783 international standards working groups, a Member of the IEEE SMC Smart Power and Energy Systems Technical Committee, and a Member of the IEEE SMC Standards Committee; he held the Chair of IEEE PES SBLC Loads Sub-Committee, served as Senior Principal Power Systems Engineer at Alstom Grid from 2000-2015, and became an academician-level expert of the Alstom Global Expert Committee in 2013.

报告题目：数字电网技术及其应用

Speech Title: Digital Power Grid Technology and Applications



## 主讲嘉宾

Keynote Speaker



冯文杰教授，华南理工大学

Prof. Wenjie Feng

South China University of Technology

## 个人简介:

冯文杰，男，1985年1月生，2013年10月毕业于南京理工大学，获工学博士学位，现为华南理工大学电信学院教授，博士生导师，国家优青(2018)，曾任电磁仿真与射频感知工信部重点实验室副主任。主要研究领域为微波/毫米波电路与器件。曾获得2015年江苏省科学技术二等奖、2021年中国电子学会科技进步二等奖、2017年江苏省青蓝工程"优秀青年骨干教师、2018年 ACES- China青年科学家奖等。

主持国家及省部级等项目共计10余项。在国际期刊和会议上发表论文200余篇,其中SCI收录IEEE期刊论文110余篇 (IEEE Transactions论文70余篇), 论文引用4000余次。受邀合作编写英文书籍的一章, 获授权国家发明专利30余项。目前担任多个SCI期刊的副主编。已培养江苏省优秀硕士论文2名,获国内外学术会议最佳学生论文奖4项。

## Biography:

Wenjie Feng (Senior Member, IEEE) was born in Shangqiu, Henan, China, in 1985. He received the B.Sc. degree from the First Aeronautic College of the Air Force, Xinyang, China, in 2008, and the M.Sc. and Ph.D. degrees from the Nanjing University of Science and Technology (NUST). He is currently a Professor with the South China University of Technology, Guangzhou, China. He has authored or coauthored over 100 IEEE journal articles (including 70 IEEE Transactions articles) and 80 conference papers. His research interests include wideband circuits and technologies, microwave and millimeter-wave circuits and components, circuits interconnection, and packaging., Dr. Feng was a recipient of the National Science Fund for Excellent Young Scholars in 2018 and the Young Scientist Award of ACES-China 2018. He was a reviewer of over 20 internationally refereed journals and conferences. Currently, he serves as an Associate Editor for IET Microwaves, Antennas and Propagation, IET Electronics Letters, and International Journal of Electronics.

**报告题目:** 基于槽隙波导技术的毫米波电路研究进展

**Speech Title:** Recent Progress of Millimeter-wave Circuits Using Groove Gap Waveguide Technology

### 主讲嘉宾

Keynote Speaker



伍洲教授, 重庆大学

Prof. Zhou Wu

Chongqing University

#### 个人简介:

伍洲, 教授/博导, 建筑业大数据与人工智能研究所负责人, IEEE高级会员。2013年获香港城市大学电子工程专业博士学位。曾在香港城市大学和南非Pretoria大学工作多年, 从事智能计算、人工智能的理论研究, 及其在建筑能源和智能建造等方面的应用研究。指导博士、硕士研究生10余名, 1名学生获得2017重庆大学优秀毕业论文。获得2016年国际ENI奖提名, 2017年重庆市优秀学术论文奖, 2018年重庆市科技进步一等奖, 及多个国际顶级期刊杰出审稿人等荣誉。主持中央高校基金1项, 主持国家自然科学基金青年基金1项, 参与多项国家级省部级项目和南非国家项目。在Science子刊、IEEE汇刊等顶级杂志发表SCI论文40余篇, 1篇论文曾入选ESI高被引, 持有发明专利2项、软件著作权2项。在能源管理、建筑节能和智能优化等领域取得了国际公认的成果。担任期刊《自动化学报》和Complex & Intelligent Systems 编委、Neural Computing & Applications和Measurement & Control客座主编。

#### Biography:

Prof. Wu is a full professor in Chongqing University. He got his Ph.D. from City University of Hong Kong, 2013. Prof. Wu has been an IEEE Senior Member since 2020. He is also a member of Association of Computer Machinery and Chinese Association of Automation. His research interests focus on intelligent optimization, smart grid, smart buildings & construction. He won the first-class award of Chongqing Scientific Technological Advancement in 2018, and won the best paper award of IEEE ISPCE-CN 2020. He held a couple of national patents and software copyrights, and authored more than 50 papers on top journals, e.g., Science Advances, IEEE Transactions, Applied Energy, and Automation in Construction. With fruitful teaching experiences, he supervised graduate and undergraduate students who held important positions in academic and industry. He served as the associate editor or editorial member for IEEE Transactions on Consumer Electronics, Complex & Intelligent Systems, International Journal of Fuzzy & Intelligent Systems.

**报告题目:** 递归神经网络的前沿理论及应用

**Speech Title:** Recurrent Neural Networks: Theoretical and Application Progress

### 主讲嘉宾

Keynote Speaker



**MAHDI DEIMI DASHT BAYAZ, 高级研究员, ITMO University**

**Senior Researcher, MAHDI DEIMI DASHT BAYAZ  
ITMO University**

#### 个人简介:

Mahdi Deymi dashtebayaz博士是ITMO大学的高级研究员。15年来, Mahdi博士一直在伊朗的多家公司/大学担任工程师、研究员、联合导师和教授。Mahdi拥有Shahrood理工大学机械工程(能量转换)博士学位。Mahdi博士的主要研究领域是可再生能源系统、热回收和热电联产系统、制冷系统和天然气处理的设计。近年来,他专注于基于可再生能源的多发电系统、能源回收和节能方法,并在高级期刊上发表了80多篇论文,在国际会议上发表了50多篇论文。此外, Mahdi博士还主持或合作参与了伊朗各行业的20多个研究项目。2017年, Mahdi博士被评为最佳研究者。

#### Biography:

Dr. Mahdi Deymi-dashtebayaz is an associate professor at HSU university (and a senior researcher at ITMO University) where he is now focusing on energy systems especially Renewable energies. For than 15 years, Mahdi has been working as a process engineer, researcher, co-supervisor, and professor for various companies/universities in Iran. Mahdi holds a Ph.D. in mechanical engineering (energy conversion) from Shahrood University of technology. His major interests are design of renewable energies systems, heat recovery and cogeneration systems, refrigeration system, and natural gas processing. In recent years, he has focused on the renewable-based multi generation systems, energy recovery and energy saving methods. He has published more than 80 papers in high rank journals and more than 50 in international conference. Also, Mahdi has participated in more than 20 research projects with various industries in Iran as moderator or collaborator. In 2017, Mahdi was introduced as the best researcher in Khorasan province by the governor of Khorasan. Also, he selected as best researcher in Hakim Sabzevari University for 5 times. Mahdi serves as section editor of the Gas Processing Journal and chairman of the committee of education and research of Iran energy association. He collaborates as reviewer in the Journal of Cleaner Production, Applied Energy, Energy, Applied Thermal Engineering, International Journal of Refrigeration, International Journal of Hydrogen Energy, Energy Conversion and Management and International Journal of Energy Research. In 2021, he started working with the ITMO University as a senior researcher in the form of a fellowship program.

**报告题目:** 在不同气候条件下对住宅楼使用一体化太阳能基地系统的可行性和比较

**Speech Title:** Feasibility and comparison of using integrated solar-base systems for a sample residential building in various climate conditions

口头报告

Oral Presentation

杨云, 国防科技大学智能科学学院

报告题目: 电解质自主迁移的无泵铝空气电池

Yun Yang, College of Intelligence Science and Technology, National University of Defense Technology

Title: The pump-less Al-air battery with self-migration electrolyte

曾凡, 青海大学

报告题目: 基于模糊聚类 and 层次分析法的电能质量用户意见度量及的综合评估

Fan Zeng, Qinghai University

Title: Comprehensive assessment of power quality user opinion meter based on fuzzy clustering and hierarchical analysis approach

舒文渤, 上海海事大学

报告题目: 可再生能源技术及其在城市环境中的应用

Wenbo Shu, Shanghai Maritime University

Title: Renewable energy technologies and its adaptation in an urban environment

海报展示

Poster Presentation

\*以下仅展示海报第一作者 Only list first author

**肖烨然**, 武汉船用电力推进装置研究所

**题目:** Permanent Magnet Synchronous Motor Stator Flux Trajectory Tracking Control Based on Switching Time Correction

**Yeran Xiao**, Wuhan Institute of Marine Electric Propulsion Equipment

**Title:** Permanent Magnet Synchronous Motor Stator Flux Trajectory Tracking Control Based on Switching Time Correction

**蒋芷娴**, 西安交通大学

**题目:** Research on low voltage ride through control strategy of permanent magnet wind turbine based on improved virtual synchronous generator control

**Zhixian Jiang**, Xi 'an Jiaotong University

**Title:** Research on low voltage ride through control strategy of permanent magnet wind turbine based on improved virtual synchronous generator control

**叶兆嘉**, 华南理工大学建筑设计研究院有限公司

**题目:** Global sensitivity analysis of energy consumption factors of building envelope structure for high-rise office buildings in different climate zones

**Zhaojia Ye**, South China University of Technology Architectural Design and Research Institute Co., Ltd.

**Title:** Global sensitivity analysis of energy consumption factors of building envelope structure for high-rise office buildings in different climate zones



海报展示

Poster Presentation

**Ren Mu**, 内蒙古电力（集团）有限责任公司包头供电分公司

**题目:** Fast-switching and fast-throwing technology for open loop point of power grid and its application in regional power grid

**Ren Mu**, Baotou Power Supply Branch of Inner Mongolia Electric Power (Group) Co., Ltd.

**Title:** Fast-switching and fast-throwing technology for open loop point of power grid and its application in regional power grid

**许皓文**, 浙江大学

**题目:** Research on Energy Purchase Combination Strategies for Multiple energy Commercial Buildings Considering Multistage Market Uncertainties

**Haowen Xu**, Zhejiang University

**Title:** Research on Energy Purchase Combination Strategies for Multiple energy Commercial Buildings Considering Multistage Market Uncertainties

**赵宇恒**, 浙江大学

**题目:** Flexible Resource Optimal Allocation Strategy for Distribution System Resilience Improvement under Failure Uncertainty

**Yuheng Zhao**, Zhejiang University

**Title:** Flexible Resource Optimal Allocation Strategy for Distribution System Resilience Improvement under Failure Uncertainty

论文展示

Paper Presentation

\*以下仅展示海报第一作者 Only list first author

**Wenan Liu**, State Grid Shandong Electric Power Company Zibo Power Supply Company

**Title:** Active and Reactive Power Collaborative Loss Reduction Optimization Strategy for Active Distribution Networks

**HUANG Libin**, Electric Power Research Institute of China Southern Power Grid Company Limited

**Title:** Electromagnetic Transient Simulation Method for Voltage Source Converter

**Zhiwei Wang**, Zhengzhou University

**Title:** Two-level decomposable penalty based distributed economic dispatch for microgrid operation

**Ziyuan Wang**, Shenyang Institute of Engineering

**Title:** Large-scale distributed photovoltaic cluster partition method based on SLM algorithm

**Duoxian Zhao**, Gansu Electric Power Company

**Title:** Optimal dispatching of wind turbine-photovoltaic-pumped storage new energies and thermal generators combined distribution network

**Yabing Wang**, Southwest Jiaotong University

**Title:** Pilot protection based on novel comprehensive impedance of positive sequence fault component for distribution network

**QIN Yingjie**, Guangdong Power Grid Co., Ltd.

**Title:** Research on Active Power Control Strategy for Offshore Wind Power Based on Multiple Time Scales

论文展示

Paper Presentation

**Dongdong Lv**, State Grid Information and Telecommunication Group Co., Ltd.

**Title:** Anomaly Detection Method for Power IoT Terminals in Zero-Trust Environment

**MA Yuchao**, China Electric Power Research Institute

**Title:** A forward design and verification of transformer noise reduction scheme based on microscopic parameter identification of porous materials

**MA Yuchao**, China Electric Power Research Institute

**Title:** Membrane-type acoustic meta-material-based low-frequency noise reduction design and verification for transformers

**Cong Yu**, State Grid Qinghai Electric Power Company Ultra High Voltage Company

**Title:** Comprehensive assessment of power quality user opinion meter based on fuzzy clustering and hierarchical analysis approach

**Yubo Zhang**, Electric Power Research Institute of Guangxi Power Grid Co., Ltd.

**Title:** Big data Analysis Method Based on Time Series Temperature Field Data of Substation Transformer

**Yiqing Wang**, State Grid Xuzhou Electrical Supply Company

**Title:** Calculation method of carbon emission in the whole process of electrothermal coupling network

**Dong Zhang**, Shenyang Institute of Engineering

**Title:** Optimal Control Method for Regional Integrated Energy System Considering Optimal Consumption of Clean Energy

## 论文展示

### Paper Presentation

**Lijing Sun**, Mechanical College, Shanghai Dianji University

**Title:** Matching analysis on flow limiting valve of marine diesel engine common rail system

**Lianrong Pan**, Guangxi Power Grid Power Dispatching Control Center

**Title:** Research on Ultra-short-term Load Forecasting Method Based on PCA-MIC-LSTM

**Shoukun Wang**, State Grid Tianjin Marketing Service Center

**Title:** Error Prediction of Capacitor Voltage Transformer By Dilated Causal Convolution and LSTM

**Kun Zhang**, China Electric Equipment Group Science and Technology Research Institute Co., Ltd

**Title:** Research on Multi-objective Planning Method for Comprehensive Energy System Based on Optimal Weight Analysis

**Chenguang Peng**, EHV Branch Company of State Grid Zhejiang Electric Power CO., LTD.

**Title:** Selection and design method of thyristor drive circuit for power electronic on-load tap-changer

**Yang Liu**, Dalian Jiaotong University

**Title:** Design and Development of Single-phase Inverter for Locomotives Based on SVPWM

**Yeran Xiao**, Wuhan Institute of Marine Electric Propulsion

**Title:** Permanent Magnet Synchronous Motor Stator Flux Trajectory Tracking Control Based on Switching Time Correction

论文展示

Paper Presentation

**Qiang Mao**, CSG EHV Power Transmission Company

**Title:** Study on the Minimum Polarity Distance of Suspension Tower for UHVDV Transmission Line in Ultrahigh Altitude Area

**Jingda Gu**, State Grid Beijing Electric Company

**Title:** Flexible Resource Optimal Allocation Strategy for Distribution System Resilience Improvement under Failure Uncertainty

**Wen Xiaoyong**, Oil and Gas Technology Research Institute of China  
Petroleum Changqing Oilfield Company

**Title:** Study on conductivity of proppant in shale reservoir

**Jinpeng Zhong**, Guangzhou Maritime University

**Title:** Neural Network-Based Modeling of Solid Oxide Fuel Cells for Marine Applications

**Xinyi Shu**, Hubei Electric Power Company Huanggang Power Supply Company

**Title:** Wind Power Generation Prediction Based on the SSA-CNN-BiLSTM Neural Network Model

**Shenhao Li**, Guangxi University

**Title:** Convergence Criterion of Power Flow Calculation Based on Graph Neural network

**Kailiang Wang**, Dongguan Power Supply Bureau

**Title:** Research on Capacity-to-Load Ratio Optimization Method Considering Collaborative Planning of Multi-Voltage Level Power Grids



## 论文展示

### Paper Presentation

**Zhixian Jiang**, Xi'an Jiaotong University

**Title:** Low voltage ride through control strategy of permanent magnet wind turbine based on improved virtual synchronous generator control

**Ren Mu**, Baotou Power Supply Branch of Inner Mongolia Electric Power (Group) Co., Ltd.

**Title:** Fast-switching and fast-throwing technology for open loop point of power grid and its application in regional power grid

**Niu Dongsheng**, Northwest Engineering Corporation Limited

**Title:** Joint optimization design of insulation and electric heat tracing of molten salt pipelines in concentrating solar power plants

**H L Zhu**, Shanghai Dianji University

**Title:** Accelerating Inverter Control System Testing and Verification Based on FPGA

**FENG Siyuan**, North China Electric Power University

**Title:** Mixed integral electromagnetic transient simulation decoupling model for two-level voltage source converter

**Xuan Wang**, Shanghai Dianji University

**Title:** Eight-channel signal synchronous acquisition system based on PCI and LabVIEW

**Yan Guan**, State Grid Liaoning Marketing Service Center

**Title:** Optimization model of new energy consumption based on load demand-side response





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■ 深圳大学 ■ 浙江大学 ■ 东南大学  
■ 北京交通大学 ■ 安徽建筑大学 ■ 中国城市科学研究会  
■ 华北电力大学 ■ 上海交通大学 ■ 汕头大学  
■ 南方电网科学研究院有限责任公司  
■ 中国能源建设集团湖南省电力设计院有限公司  
■ 云南电网公司科数部  
■ 国家电网有限公司华北分部调度中心  
■ 中国建筑标准设计研究院有限公司  
■ 中国南方电网电力调度控制中心  
■ 国网江苏省电力有限公司电力科学研究院

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