

# Energy Internet for Carbon Neutrality

October 22-24, 2021 Taiyuan, China



太原理工大学  
TAIYUAN UNIVERSITY OF TECHNOLOGY



**Oct. 22<sup>th</sup>-24<sup>th</sup>, 2021, Taiyuan, China**

The theme of the 5<sup>th</sup> IEEE Conference on Energy Internet and Energy System Integration is “**Energy Internet for Carbon Neutrality**”, focusing on the theory, roadmap, demonstration and deployment for energy & power transition development to support China’s action plan for ‘peak carbon dioxide emissions’ and ‘carbon neutral’. Specifically, the objective of the transition development of energy & power is to build new power system with new energy as the main body, having the performances of wide interconnection, intelligent interaction, flexibility & resilience, security & controllability.

We invite research papers, workshop proposals, and panel proposals in, but not limited to, the following

## Topics associated with EI<sup>2</sup> :

- Renewable energy grid interconnection
  - Operation and control of High voltage DC grids
  - Operation and planning of Active distribution system
  - District energy internet/District comprehensive energy systems
  - Source-grid-load-storage coordination dispatch
- Smart grid security
  - Modeling and analysis of resilient Energy internet
  - Modeling, co-simulation and analysis of Cyber-Physical System (CPS) of Energy internet
  - Simulation & control for power system with high penetration of renewables
- ICT application in energy internet
  - Big data & AI
  - IoT and Digital twin
  - Mobile internet application
  - Cloud computation/ edge computation
- Market mechanism and policy supporting energy internet
  - Market mechanism
  - Transaction energy
  - Block chain based energy transaction
- Key equipment of energy internet
  - Energy router
  - Solid state transformer
  - Energy storage and transformation equipment
- Business model of energy internet
  - Carbon transaction
  - Participation and interactive
  - Comprehensive energy service based on energy internet
- Demonstration of energy internet
  - District energy internet demonstration
  - City-level energy internet demonstration
  - Others

## Paper Submission :

Prospective authors are invited to electronically submit full papers strictly formatted according to IEEE Template in both pdf and word format following instructions accessible via [https://cms.amss.ac.cn/?lang=en\\_US](https://cms.amss.ac.cn/?lang=en_US) (English version available) .

### Paper Template Download Address:

<https://www.ieee.org/conferences/publishing/templates.html>

All regular papers must adhere to the 6-page limit.

Accepted and presented papers will be submitted for inclusion in the IEEE Xplore online digital library and EI compendex.

## Technical Session Information

	Chair	Organization	Topic
1	Fushuan Wen	Zhejiang University	Energy Conversion and Economics
2	Jiabing Hu	Huazhong University of Science and Technology	Synchronism of Renewable Energy Dominated Power Systems
3	Xiangjun Li	China Electric Power Research Institute	Security and Operation Control for Energy Storage Devices in New-Type Power Systems
4	Canbing Li	Shanghai Jiao Tong University	Modeling and Analysis of Transient Process in Power-Electronic-Based Power System
5	Yi Ding and Chengjin Ye	Zhejiang University	Risk, Prevention and Control of Extreme Events Including Short Circuits
6	Yi Tang	Southeast University	Artificial Intelligence and its Application in Power Systems
7	Jing Ma	North China Electric Power University	Wide-band Oscillation Stability and Control in New-Type Power System
8	Yong Li	Hunan University	Multi-Energy System Integration for Zero-Carbon Development
9	Wei Yao	Huazhong University of Science and Technology	Technologies of Operation and Control of Offshore Wind Power
10	Weixing Li	Dalian University of Technology	Modeling of Renewables-Dominated Power Systems
11	Nian Liu	North China Electric Power University	Modeling and Analysis of Cyber-physical-Social System in Energy Fields
12	Xiaohui Qin	China Electric Power Research Institute	Key Technologies of New-Type Power System Construction
13	Junhua Zhao	Chinese University of Hong Kong, Shenzhen	Power Market Modelling and Analysis in the Context of Carbon Neutrality
14	Ye Guo	Tsinghua Shenzhen International Graduate School	Distributed Optimization Approaches and Market Mechanisms for Inter-Regional Transactions
15	Jianxiao Wang, Guannan He	North China Electric Power University, Peking University	Toward Low-Carbon Energy Transition: Hydrogen Technology and Future Society
16	Zhigang Li	South China University of Technology	Approximate Modeling Techniques in Integrated Energy System Operation and Control
17	Wei Wei, Yanghong Xia	Zhejiang University	Key Technologies of Hydrogen Production Based on Renewable Energy Sources
18	Jinquan Zhao	Hehai University	Renewable Energy Dominated Power System Stability
19	Jianlin Li	North China University of Technology	Market Prospect and Business Model Exploration of Energy Storage System Under Carbon-Neutral Goal

## Special Topic Forum Information

	Chair	Organization	Topic
1	Qinglai Guo	Tsinghua University	Young Scholars' Forum
2	Feng Gao	Beijing TsingSoft Inc.	Energy Digital Transformation for New Form Electric Power Systems

**National smart grid key R&D program session information is continuously updating!**

## Special Guests of the Conference



**Xiaoxin Zhou**

Academician of Chinese Academy of Sciences



**Yusheng Xue**

Academician of Chinese Academy of Engineering



**Yi Jiang**

Academician of Chinese Academy of Engineering



**Licheng Li**

Academician of Chinese Academy of Engineering



**Shijie Cheng**

Academician of Chinese Academy of Sciences



**Jianbo Guo**

Academician of Chinese Academy of Engineering



**An Luo**

Academician of Chinese Academy of Engineering



**Weijiang Chen**

Academician of Chinese Academy of Sciences



**Liejin Guo**

Academician of Chinese Academy of Sciences



**Guangfu Tang**

Academician of Chinese Academy of Engineering



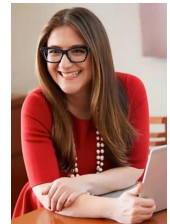
**Yican Wu**

Academician of Chinese Academy of Sciences



**Qiuliang Wang**

Academician of Chinese Academy of Sciences



**Shay Bahramirad**

Doctor, Vice President of Quanta Technology, USA

## Conference Chairs

**Yinbiao Shu**

General chair, China, China Huaneng Group Co., Ltd

**Hongbin Sun**

Executive Chair, China, Tsinghua University

**Xiaoqing Han**

Co-chair, China, Taiyuan University of Technology

**Jinyue Yan**

Co-chair, Sweden, Royal Institute of Technology

**Jianhui Wang**

Co-chair, USA, Southern Methodist University

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## Important Dates

- Feb.25,2021 Notice of call for paper
- Apr.10,2021 Submission system open
- Jul.30,2021 Full paper submission deadline
- Aug.25,2021 Notification of acceptance
- Sep.15,2021 Early registration closes
- Oct.22-24,2021 Conference

For additional information please visit [www.ieee-ei.org](http://www.ieee-ei.org). Please don't hesitate to contact [ieee-ei2@tyut.edu.cn](mailto:ieee-ei2@tyut.edu.cn) or [IEEE\\_EI2\\_2021@163.com](mailto:IEEE_EI2_2021@163.com) if you have any questions.