

INTRODUCTION

Sponsored by IEEE, IEEE IAS, organized by Shanghai Jiao Tong University, co-organized by University of Electronic Science and Technology of China, Shandong University, and North China Electric Power University, 2022 IEEE IAS Industrial and Commercial Power System Asia (IEEE I&CPS Asia 2022) Conference will be held during July 8-11, 2022 in Shanghai, China.

IEEE I&CPS Asia 2022 will focus on 'Towards Low-carbon Power System', and aim to provide a high quality platform for researchers, practitioners, professionals, and students from all over the world to present their latest research findings, ideas, and applications in the related fields of Power Systems. Featured with keynote session, technical session, tutorial session and special session, IEEE I&CPS Asia 2022 will provide the delegates an unparalleled opportunity to exchange with qualified professionals and build future partnership.



SPECIAL SESSION ON

Data-Driven Situational Awareness and Decision Making for Industrial Smart Grids

In modern industrial power grids, the availability of massive measured information has provided immense opportunities to enhance the intelligence level of system-wide situational awareness and decision making by leveraging emerging data analytics and machine learning technologies. Consequently, this would largely help upgrade modern power grids towards smart grids from a digitalized data-driven perspective. This special session presents recent advances and new trends in data-driven situational awareness and decision making for industrial smart grids. It is planned to be organized in a mixed form, including not only professional talks given by invited researchers but also paper submissions and presentations by interested authors.

TECHNICAL OUTLINE OF THE SESSION

This special session focuses on addressing the emerging topic of how to unlock the great potential of data analytics and machine learning to enhance industrial smart grid operation. Powerful data-driven situational awareness and decision-making solutions can be systematically developed by appropriately employing advanced machine learning techniques to explore and mine valuable information hidden behind massive measurement data in practical grids. For paper submissions, specific topics of interest include but are not limited to:

- Data cleansing and analytics in smart grids
- Data-driven power system dynamics modeling and identification
- Data-driven situational awareness and visualization
- Data-driven energy management and optimized operation
- Data-driven power system dynamic stability/security assessment
- Data-driven risk hedging and stability control
- Data-driven renewable generation/load forecasting
- Power system fault/event detection based on data analytics
- Reinforcement learning for power system decision making

SPECIAL SESSION ORGANIZERS

Lipeng Zhu	Hunan University
Xinran Zhang	Beihang University
Le Zheng	North China Electric Power University

IMPORTANT DATES

Submission Deadline	May 15, 2022
Notification Deadline	June 15, 2022

PUBLICATION

Submissions to IEEE I&CPS 2022 will be peer reviewed on the basis of technical quality, relevance to conference topics, originality, significance, clarity, etc. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements.

Please enter IEEE I&CPS Asia 2022 online submission system and choose 'SP004. Data-Driven Situational Awareness and Decision Making for Industrial Smart Grids' to submit papers.

Submission Link:
<https://easychair.org/conferences/?conf=iieeeicpsasia2022>

