THE 8TH IEEE CONFERENCE ON ENERGY INTERNET AND ENERGY SYSTEM INTEGRATION

NOV. 29 - DEC. 02, 2024 | SHENYANG, CHINA

///// **Special Session 16** /////

Digital Twins and On-line Monitoring Technology of Electrical Equipment for New Power System

○ **INTRODUCTION AND TOPICS** ○

With the development of new power system and smart grid, higher requirements are put forward for the digital twins and condition monitoring technology of electrical equipment. As the key equipment in power system, the operation reliability of transformer and high voltage switch affect the security and stability of grid. At present, some conventional monitoring methods on the operation status of transformer and high voltage switch have certain limitations, for example, the detection method for deformation fault of transformer winding includes frequency response and short circuit reactance method, and detection method for electrical contact fault of the high voltage switch includes loop resistance test, etc. These methods have the limitations of offline detection, and cannot identify latent faults. This seminar focuses on discussing the research progress of digital twins and online monitoring technology of electrical equipment in power system. The contents include, but are not limited to, the following topics: theoretical models, digital twins, experimental testing, spectrum identification, condition monitoring, intelligent perception, and diagnosis methods of electrical equipment.

○ **SPECIAL SESSION CHAIRS** ○

Assoc. Prof. Chen Cao
Shenyang University of Technology,
China

Assoc. Prof. Zhenxin Geng
Shenyang University of Technology,
China

○ **PUBLICATION & SUBMISSION** ○

Submissions will be reviewed by the conference technical committees, and accepted papers will be published in IEEE EI² 2024 International Conference Proceedings, which will be submitted for inclusion in the **IEEE Xplore Digital Library**, and submitted for indexing by **EI compendex** and **Scopus**.

Scan the QR code on the left or open the submission link to submit your paper.
‣ Submission link: https://easychair.org/conferences/?conf=ei22024

Submission Deadline: 31 October, 2024

ORGANIZATIONS

IEEE PES Power & Energy Society®   中国电机工程学会 CHINESE SOCIETY FOR ELECTRICAL ENGINEERING   沈阳工业大学 SHENYANG UNIVRSITY OF TECHNOLOGY   清華大學 Tsinghua University

For any questions, please contact the conference secretary, **Ms. Joyce Zhong**, via **EI2_2024@outlook.com.**