

## 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

### Fault Analysis, Power Quality and Relay Protection Scheme of DC Transmission/Distribution Network

To construct the new power system and achieve the “double carbon” goal, the DC transmission/distribution technologies have played an important role in developing renewable energy for advantages such as high flexibility in operation, large transmission capability and easier integration of new energy into the power grid. However, unlike the AC grid with a large inertia and clear responses to fault, the DC transmission/distribution network has a low inertia and will change very fast when fault occurs, and has much more complex transient responses due to the nonlinear characteristics of converters. Thus, introducing novel techniques of DC fault analysis, power quality analysis and relay protection is of great significance in facilitating the safe, stable operation of the transmission/distribution system.

## TECHNICAL OUTLINE OF THE SESSION

This special session focuses on a hot research topic — fault analysis, power quality and relay protection scheme of DC transmission/distribution network. DC transmission/distribution technology has shown many advantages to power system. In transmission network, greater capacity can be transmitted with lower power losses using DC technology. In distribution network, using DC technology can easily connect distributed resources to power grid and control the power flow more flexibly. However, the DC transmission/distribution network has much more complex transient responses and low tolerance to faults. Novel techniques and theories in related area are encouraged in this special session. Topics of interest include (but are not limit to): converter topologies, control, fault current/voltage calculation, fault analysis, power quality analysis, design of protection scheme in DC transmission/distribution network, etc.

## SPECIAL SESSION ORGANIZERS

Yangyang He

Shanghai Jiao Tong University

Xiaoyang Ma

Sichuan University

## IMPORTANT DATES

Submission Deadline

May 15, 2022

Notification Deadline

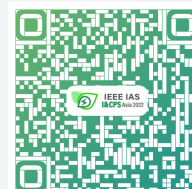
June 15, 2022

## 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 'SP007. Fault Analysis, Power Quality and Relay Protection Scheme of DC Transmission/Distribution Network' to submit papers.

Submission Link:

<https://easychair.org/conferences/?conf=ieeEICPSAsia2022>

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