

2026 11th International Conference on Power Electronics Systems and Applications



Important Dates

Submission Deadline	June 25, 2026
Notification Deadline	July 25, 2026
Registration Deadline	August 30, 2026

Special Session 6: Medium-Voltage Solid-State Transformer and Smart Power Routing Technologies for Future Grid Applications

Medium-voltage solid-state transformers (MV-SSTs) are emerging as promising alternatives to conventional line-frequency-transformer-based power conversion interfaces for next-generation grid infrastructure and high-power applications. By leveraging advanced power electronics conversion and control capabilities, MV-SSTs offer new opportunities for smarter power routing and enhanced integration of emerging high-power loads.

This Special Session focuses on recent advances in medium-voltage solid-state power conversion technologies for data centers, hydrogen electrolyzers, and ultra-fast EV charging infrastructure. The session welcomes contributions addressing the unique power conversion, scalability, efficiency, reliability, and grid-integration challenges associated with these emerging high-power applications. The scope of this Special Session includes, but is not limited to, MV-SST architectures, converter topologies, modulation and coordinated control strategies, smart power routing and energy management, grid-supportive services, fault ride-through operation, bidirectional semiconductor devices, and reliability-oriented design.

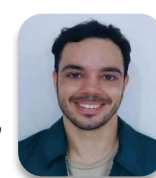
The aim is to provide a platform for researchers and industry experts to exchange innovative ideas and discuss future directions for efficient, resilient, and sustainable medium-voltage power conversion systems.



Chair: Qingxiang Liu
City University of Hong Kong, China



Co-Chair: Salvador Ceballos
City University of Hong Kong, China



Co-Chair: Ezequiel Rodriguez Ramos
Senior Engineer, Singapore



Co-Chair: Jiaxin Dong
Singapore Institute of Technology, Singapore



Co-Chair: Yu Zeng
University of Electronic Science and Technology of China, China

Publication

IEEE The accepted and presented papers will be published in the **PESA Conference Proceedings**. Conference content will be submitted for inclusion into **IEEE Xplore** and indexed by **Ei Compendex** and **Scopus**, etc.

- + PESA 2026 has been included in IEEE event list! (Read More)
- + All past PESA proceedings are archived in IEEE Xplore and indexed by Ei Compendex and Scopus.



SCI Journal

Up to 20% of the outstanding PESA 2026 papers will be selected and recommended for review and potential publication in IAS Transactions and IAS Magazines (JCR-Q2).

Publication History

Accepted and presented papers of **10-year PESA** have been successfully published and indexed by **Ei Compendex & Scopus**.

PESA 2024: Hong Kong, China - ISBN: 979-8-3503-6580-1

PESA 2022: Hong Kong, China - ISBN: 978-1-6654-8668-2

PESA 2020: Hong Kong, China - ISBN: 978-1-7281-8890-4

PESA 2017: Hong Kong, China - ISBN: 978-1-5386-1387-0

PESA 2015: Hong Kong, China - ISBN: 978-1-5090-0063-0

PESA 2013: Hong Kong, China - ISBN: 978-1-4799-3491-1

More info, please visit: <https://www.icpesa.net/history.html>

Submission Guidelines

Submission Link: <https://www.easychair.org/my/conference?conf=pesa2026>

Please select **Special Session 6** after accessing the submission system.

Full Paper Template

Abstract Template

Note:

- ~ Full Paper (**No less than 4 pages normally, 10 pages maximum. 5-6 pages are recommended**, including all figures, tables, and references)
- ~ Abstract (Within 300 words)
- ~ Official language is **English** in paper/abstract writing and presenting
- ~ Download the Full Paper/Abstract Template for proceedings and read **guidelines**.

Contact US

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Conference Website: www.icpesa.net

Special Session Page: <https://www.icpesa.net/special-session-6.html>

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