

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 5: Smart Wireless Charging Technologies: Machine Learning, Parameter Optimization, Magnetic Coupler Designs, and Advanced Control Topology

While modern power electronics have accelerated the adoption of wireless power transfer (WPT) systems, achieving optimal performance under dynamic operating conditions presents multi-variable engineering challenges. To address these complexities, this special session explores the transformative role of Artificial Intelligence (AI) and data-driven methodologies in next-generation WPT applications. The session aims to gather cutting-edge research spanning AI-based WPT system architectures, neural network-based parameter estimation strategies, and data-driven techniques for foreign object detection and position identification. Furthermore, we welcome pioneering implementations utilizing reinforcement learning for controller design, advanced compensation topologies, novel power converters, and AI-assisted parameter optimization for magnetic couplers. Ultimately, this session serves as a forum for any innovative research dedicated to advancing the intelligence, efficiency, and safety of wireless energy transmission.



Chair: Chi-Fong leong
University of Macau, China



Co-Chair: lam-lo Wa
University of Macau, China



Co-Chair: Zhicong Huang
South China University of Technology, China



Co-Chair: Chi-Seng Lam
University of Macau, 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).

Submission Guidelines

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

Please select Special Session 5 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**.

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>

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Conference Website: www.icpesa.net

Special Session Page: <https://www.icpesa.net/special-session-5.html>

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