ICEM 2024, Torino, September 1-4 2024

Special Session on

Use of Artificial Intelligence for Optimized Design of Electrical Machines and Drives

Organized and co-chaired by

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Call for Papers

This session aims to bring together researchers, practitioners, and industry professionals to discuss and share the latest advancements in the application of artificial intelligence (AI) techniques in the design and optimization of electrical machines and drives.

AI technologies have emerged as game-changers in this domain, offering adaptive, self-learning, and predictive capabilities that enable superior performance, and real-time decision-making. Particularly, the design, control and optimization of electric machines and drives benefit from machine learning techniques for a higher level of performance and reliability. The aim of this Special Session is to bring together original, theoretical and practical ideas, and future trends of AI implementation for design and optimization of electrical machines (motors and generators), and the related converters, inverters and rectifiers.

Topics of interest include, but are not limited to:

- Multi-objective optimization methods for electric machine design.
- Use of ML algorithms to optimize electrical machines and associated power electronics converters.
- Application of AI in design processes of electrical machines and drives
- AI implementation for control improvement of electrical machine drives

Papers on power converters with no evident contribution on e-drives will be immediately rejected upon evaluation of the technical program committee.

Submission of papers: paper submission follows the rules of regular papers. All the instructions for paper submission are included in the conference website https://icem.cc/2024