

## Special Issue

# Motor System Optimization for Sustainable and Energy-Efficient Applications

### Message from the Guest Editors

Motor systems are the largest single source of electricity worldwide. This Special Issue aims to showcase advanced research on motor system optimization, focusing on novel motor design methodologies, energy-efficiency enhancement, advanced control strategies, and system integration. Research areas may include (but are not limited to) the following:

- Novel motor topologies (including induction motors, synchronous motors, and permanent magnet motors), materials, and manufacturing techniques to improve efficiency and power density.
- Advanced control strategies and thermal management for minimizing losses (e.g., iron, copper, and mechanical losses).
- Hybrid and multi-physics modeling of motor systems under varying loads and environmental conditions.
- Multi-scenario optimization (e.g., single/multi-objective (s), multi-physics, multi-levels, multi-modes) of induction motors, synchronous motors, and permanent magnet motors for energy efficiency.
- Fault-tolerant design, fault (modeling/diagnosis), and condition monitoring.
- Integration of motor systems with energy storage and grid infrastructure for resilience.

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### Guest Editors

Dr. Zhenbao Pan

Dr. Yiming Shen

Dr. Lu Zhang

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### Deadline for manuscript submissions

15 July 2026



## Electronics

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## About the Journal

### Message from the Editor-in-Chief

*Electronics* is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

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### Editor-in-Chief

Prof. Dr. Flavio Canavero

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