Special Issue

Artificial Intelligence Applications in Electrical and Energy Systems

Message from the Guest Editors

The Special Issue on "Artificial Intelligence Application in Electrical and Energy Systems" aims to explore the transformative impact of AI technologies on the modern electrical and energy sectors. As these fields confront unprecedented challenges related to efficiency, reliability, and sustainability, AI offers innovative solutions for optimizing operations, predicting failures, and integrating renewable energy sources. This Issue will present cutting-edge research and case studies demonstrating how AI techniques such as machine learning, deep learning, and data analytics are being applied to enhance grid management, improve energy storage systems, and develop smart grid technologies. Suggested themes include, but are not limited to, the following:

- Forecasting applications in power systems;
- AI-driven predictive maintenance;
- Demand side flexibility;
- Energy management;
- Increasing renewable penetration;
- AI driven application in power electronics.

In this Special Issue, original research articles and reviews are welcome. We look forward to receiving your contributions.

Guest Editors

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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.

Editor-in-Chief

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

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