Special Issue

Applications of Artificial Intelligence in Electric Power Systems

Message from the Guest Editors

Artificial intelligence technology, with its powerful data processing capabilities, has become a key technology for solving complex problems in the field of energy and power. From accurate prediction of new energy generation to intelligent dispatching of the power grid and from intelligent operation and maintenance of power equipment to intelligent energy use on the user side, artificial intelligence technology is deeply integrated into the entire energy production, transmission, and consumption chain, promoting the accelerated evolution of traditional power systems to new power systems. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following:

- Electric power artificial intelligence;
- Electric power computer vision;
- Defect detection of transmission equipment;
- Defect detection of substation equipment;
- Defect detection of photovoltaic panels;
- Fault diagnosis of fan blades;
- Photovoltaic power prediction;
- Wind power prediction:
- Power load forecasting;
- Power Internet of Things technology.

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).

