

Special Issue

Renewable Energy Power and Artificial Intelligence

Message from the Guest Editors

The focus of this Special Issue is to foster state-of-the-art research and highlight the latest findings at the intersection of RES technologies and AI applications. We welcome original contributions and review papers proposing new AI-based methods, including machine learning, deep learning, reinforcement learning, and hybrid methods, applied to photovoltaic systems, wind energy, energy storage, smart grids, and energy forecasting. The main topics of interest for this Special Issue include, but are not limited to, the following:

- AI techniques for RES forecasting and optimization;
- Fault diagnosis and predictive maintenance using AI;
- AI for RES condition monitoring and lifetime extension;
- AI in power electronics for renewable integration;
- Intelligent control of distributed energy resources;
- Energy storage management through AI models;
- AI for RES and electric vehicle orchestration;
- AI for RES and demand response coordination;
- AI-enhanced DC power systems using RES;
- AI-driven smart grid for RES integration;
- Planning of green power networks using AI;
- Role of RES in AI carbon footprint mitigation.

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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