

Special Issue

Applications of Machine Learning and Artificial Intelligence in Modern Power and Energy Systems

Message from the Guest Editors

Intelligent energy management, conversion and control are vital to optimize the generation, distribution and consumption of electrical energy and the corresponding necessity of using solid and liquid fossil fuels. With the technological improvements in renewable energy sources, electricity production is transitioning from the traditional centralized systems to distributed energy systems.

This Special Issue aims to collect new research information and contributions on intelligent energy management, conversion, prediction and control, including, but not limited to smart applications for power grid control, renewable energy sources, power electronic converters, fuel cells and others. Smart energy management and control can be effectively realized in various ways, including

- Effective load prediction and management, applying machine learning and artificial intelligence
- Fuel consumption forecasting and optimization
- Efficiency optimization in power flow management
- Power electronics energy conversion with loss minimization
- Monitoring and timely troubleshooting of intelligent energy systems
- Energy and power system management and optimization
- Energy and power resiliency and trust

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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 guest-edited by leading experts in selected topics of interest.

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