Special Issue

Advanced Forecasting Techniques and Methods for Energy Systems

Message from the Guest Editors

The transition towards environmentally friendly power systems is driving an increase in the production of clean energy. Distributed energy resources are increasingly vital in modern power and energy systems, offering benefits such as reduced emissions and enhanced security. However, their variability and uncertainty demand greater flexibility in future energy systems. Consequently, prediction plays a crucial role in asset and resource management across various fields. including energy commodities. This Special Issue aims to showcase forecasting techniques, emphasizing machine learning and artificial intelligence alongside statistical forecasting techniques and hybrid methodologies. Papers that focus on the development and applications of different analysis tools, from microgrids to continental scale systems, and focus on the planning and management of renewable energy systems, energy portfolios, markets and natural resources are welcome. Original research and review articles that contribute to advanced forecasting and optimization in energy systems are welcome.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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