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Intelligent Forecasting and Optimization in Electrical Power Systems

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Message from the Guest Editors

This Special Issue focuses on applications of artificial intelligence and machine learning models (including hybrid and ensembles methods) for forecasting and optimization in power engineering. Effective operation of electrical power systems of various sizes (including microgrids) require precise short-term forecasts of both electricity generation in Renewable Energy Systems and electricity demand.

Forecasts of generation in RES are important for owners of small energy systems in order to optimize the use of various energy sources and facilitate energy storage.

Expected topics include, but are not limited to:

- Artificial intelligence/machine learning/deep learning for forecasting of electricity generation in RES,
- Artificial intelligence/machine learning/deep learning for forecasting of power demand in electrical power systems
- Optimization of electrical power systems,
- Forecasting of meteorological data (wind speed, solar radiation) important to forecast electricity generation in RES
- Statistical analysis of data for forecasting models (including problems of big, missing, distorted and uncertain data),
- Reliability of electrical power systems.

Special Issue



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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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