

Special Issue

Machine Learning and Optimization with Applications of Power System III

Message from the Guest Editor

This Special Issue is focused on machine learning and optimization techniques that can be applied for power system operation, such as energy data analytics, time series energy forecasting, renewable energy markets, energy storage systems (ESS), microgrids, and distribution networks. Modern power systems face new challenges due to the high penetration of renewable generation, and thus, prediction and control are essential for grid reliability. Thanks to the massively deployed energy IoT sensors and energy big data, machine learning, including deep learning, is being actively applied to predict renewable generation and electric loads. The accurate forecasting of PV and wind power is also of prime importance for strategic bidding in renewable energy markets. Deep learning techniques including recurrent neural networks (RNN), long short-term memory (LSTM), and convolution neural networks (CNN) are expected to improve the prediction accuracy of time series energy data.

Guest Editor

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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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