Special Issue

Implementation of Machine Learning in Sustainable Electric Power Applications

Message from the Guest Editors

In the coming developments, it will be critical to utilize our resources as intelligently as possible and to make renewable energy resources (RESs) the main providers of commercial energy. Direct implementation of this policy will see more efficient devices built, operated by and/or generating electric energy. Remaining challenges include the expected exponential increase in the penetration of RESs in electric grids. The systems built require better state awareness more flexibility in their operation.

Machine learning (ML) methods may be a strategy for realizing this control. Tailored to process through stochastic large datasets, ML and deep learning techniques have recently received a great deal of attention. These could be used for residential load forecasting, PV and wind energy generation forecasting, flexibility assessment, condition monitoring etc. in power systems applications such as motors and other electrical equipment.

This Special Issue covers all recent advances in machine learning and deep learning implementations for electric power applications.

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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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