Special Issue

Artificial Intelligence and Machine Learning in Smart Grids

Message from the Guest Editors

This Special Issue explores the application of artificial intelligence and machine learning in the field of smart grids, delving into the potential impact of these advanced technologies within the domain of power systems. The primary objective is to provide a comprehensive resource for researchers, practitioners, and decision-makers in the power sector, assisting them in better understanding and applying these technologies to propel the development of smart grids. Special emphasis is placed on their pivotal roles in data processing, predictive performance optimization, and fault detection, as well as the transformative effects they bring to the production, transmission, and distribution of electrical energy. We invite original and unpublished contributions for this Special Issue, focusing on innovative approaches to enhance artificial intelligence and machine learning technologies across all relevant applications in smart grids. The ultimate goal is to foster discussions and contributions that will advance the state of the art in these technologies, further driving innovation in the field of smart grids.

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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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