Special Issue

Artificial Neural Network Applications in the Simulation Modeling, Control, and Fault Diagnosis of Energy Systems

Message from the Guest Editor

Demand for energy is increasing globally. The control and fault diagnosis of energy systems such as smart grids and storage batteries are crucial for ensuring efficiency, maintaining the health of such systems, and avoiding potential blackouts and catastrophic incidents. A strong control system requires a reliable system model to ensure stability and efficiency. However, the complexity of energy systems makes classical modeling using the known laws of physics difficult to achieve. Similarly, the design of analytical control systems and fault diagnosis may not be possible for such systems. This Special Issue aims to disseminate recent advances in modeling, control, efficiency, and fault diagnosis in energy systems. Topics of interest for publication include, but are not limited to, the following:

- Review papers of energy system modeling;
- Modeling energy systems using AI;
- Controlling energy systems using AI;
- Diagnosing faults in energy systems using AI;
- Data analytics in energy system efficiency.

Guest Editor

Prof. Dr. Ali Alouani

Department of Electrical and Computer Engineering, Tennessee Technological University, Cookeville, TN 38505, USA

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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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