



## Advanced Machine Learning Applications in Modern Energy Systems

Guest Editors:

**Dr. Ali Ahmadian**

1. Department of Chemical Engineering, University of Waterloo, Waterloo, ON, Canada  
2. Department of Electrical Engineering, University of Bonab, Bonab, Iran

**Prof. Dr. Ali Almansoori**

Department of Chemical Engineering, Khalifa University of Science and Technology, Abu Dhabi 127788, United Arab Emirates

Deadline for manuscript submissions:

**closed (28 September 2023)**

### Message from the Guest Editors

Dear Colleagues,

Optimization in sustainable energy systems is necessary for sustainable development. This Special Issue will consider various important factors, such as minimizing performance costs and environmental pollution and increasing sustainability and reliability. The uncertainty modeling of input parameters should also be considered in this problem. The purpose of this Special Issue is to provide an opportunity for researchers to present new machine learning methods in sustainable modern energy systems in order to decrease the performance cost and environmental pollution and increase the sustainability and reliability. Topics of interest include, but are not limited to:

- The application of machine learning in the energy, water, and food nexus;
- Uncertainties modeling of stochastic parameters in energy systems;
- Load demand forecasting in smart cities;
- Electricity price forecasting in modern energy markets;
- Electric vehicles load demand forecasting in order to schedule in smart grids;
- Integrated natural gas and electric networks;
- Sustainable development;
- Techno-economic evaluation of energy systems.





# energies



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** CiteScore - Q1 (Control and Optimization)

## Contact Us

---

*Energies* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/energies](http://mdpi.com/journal/energies)  
[energies@mdpi.com](mailto:energies@mdpi.com)  
[X@energies\\_mdpi](https://twitter.com/energies_mdpi)