



an Open Access Journal by MDPI

# Application of AI in Energy Savings and CO<sub>2</sub> Reduction

Guest Editor:

# Prof. Dr. Francis F. Assadian

Department of Mechanical and Aerospace Engineering, University of California Davis, Davis, CA 95616, USA

Deadline for manuscript submissions: **31 March 2025** 

### Message from the Guest Editor

The intent of this Special Issue is to present the current research with respect to how new technologies, namely, artificial intelligence and machine learning, have contributed to energy savings and CO<sub>2</sub> emission reductions in engineering fields. Additionally, the application of current techniques and their significance will be addressed. This Special Issue will highlight the results of current research and development activities of the use of AI and machine learning in energy savings and CO<sub>2</sub> reduction in the following areas: (1) transportation including ground vehicles and aerospace, (2) robotics and manufacturing, (3) industrial processes, (4) residential and institutional facilities, (5) power generation, and (6) agriculture. It is our objective to provide directional guidance within these research investigations to later serve as a valuable source for researchers' future exploration. This Special Issue will contribute to the current knowledge base by presenting insights into intelligent techniques in the aforementioned areas to reduce energy usage and to mitigate CO<sub>2</sub> emissions.









an Open Access Journal by MDPI

# **Editor-in-Chief**

#### Prof. Dr. Enrico Sciubba

Department of Mechanical and Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 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 mdpi.com/journal/energies energies@mdpi.com X@energies\_mdpi