

## Special Issue

# Simulation Modelling and Analysis of a Renewable Energy System, 3rd Edition

### Message from the Guest Editors

As environmental pollution continues to threaten global civilization, fossil fuel consumption remains one of the leading causes of pollution. Renewable energy sources, such as biofuels, solar power, wind energy, and geothermal energy, are seen as vital solutions to mitigate this issue. However, the high costs of implementation present significant challenges to their widespread adoption. This Special Issue of *Energies* seeks to explore the application of simulation modelling techniques to optimize renewable energy systems. By utilizing models such as discrete event simulation, system dynamics, agent-based simulation, and artificial intelligence, we aim to evaluate the performance, energy generation capacity, and economic viability of renewable energy systems in real-world scenarios. We invite original research papers and critical reviews that apply simulation modelling methods to improve renewable energy management. Contributions should focus on innovative approaches for assessing renewable energy systems' efficiency, practicality, and financial benefits. Submit your manuscript now and contribute to shaping the future of sustainable energy solutions!

### Guest Editors

Dr. Sumin Kim

Department of Environmental Horticulture & Landscape Architecture,  
College of Life Science & Biotechnology, Dankook University, Yongin,  
Republic of Korea

Dr. Sojung Kim

Department of Industrial and Systems Engineering, Dongguk  
University-Seoul, Seoul 04620, Republic of Korea

### Deadline for manuscript submissions

31 August 2025



## Energies

an Open Access Journal  
by MDPI

Impact Factor 3.0  
CiteScore 6.2



[mdpi.com/si/232853](https://mdpi.com/si/232853)

*Energies*

MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[energies@mdpi.com](mailto:energies@mdpi.com)

[mdpi.com/journal/  
energies](https://mdpi.com/journal/energies)





# Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.0  
CiteScore 6.2



[mdpi.com/journal/  
energies](https://mdpi.com/journal/energies)



## About the Journal

### 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

---

### 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)