

## Special Issue

# Wind Power Generation and Wind Energy Utilization

### Message from the Guest Editors

Wind energy is vital for transitioning to cleaner power systems. Advances in data science—such as big data analytics, machine learning (ML), and artificial intelligence (AI)—enhance the efficiency and economic viability of wind generation. Utilizing large datasets allows researchers to improve resource assessments, optimize turbine performance, and lower maintenance costs. Predictive models foresee faults, enabling proactive maintenance. Robust forecasting tools are essential for grid stability, and integrating SCADA data, meteorological information, and real-time sensor readings enhances forecasting and planning, while digital twins improve monitoring and decision-making. This Special Issue invites contributions on data-driven solutions for wind power, including:

- Data analytics and AI for wind energy
- Wind forecasting methods
- Predictive maintenance in turbines
- Digital twin technologies
- Advanced sensor systems
- SCADA data management
- Grid stability and optimization
- Socio-economic implications of wind energy solutions

### Guest Editors

Prof. Dr. Yingying Zheng

College of Information and Electrical Engineering, China Agricultural University, Beijing 100083, China

Dr. Yongning Zhao

College of Information and Electrical Engineering, China Agricultural University, Beijing 100083, China

### Deadline for manuscript submissions

20 January 2026



## Energies

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/229940](https://mdpi.com/si/229940)

*Energies*  
Editorial Office  
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 3.2  
CiteScore 7.3



[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)