

# Special Issue

## Wind Turbine Advances

### Message from the Guest Editors

The environmental challenges are driving the community to press and accelerate in the ecological transition and CO<sub>2</sub> reduction toward a fossil-free future. In this context, renewables (especially wind energy), are now having the largest attention than ever. Contribution is demanded from the scientific research to boost wind energy technology development and minimize the LCOE, making the ecological transition sustainable. This Special Issue aims to collect recent and original contributions on advances in wind turbines and wind energy research. The topics included are:

- Advances in design and control of wind turbines;
- Annual energy production optimization and losses estimation;
- Control strategies for floating wind turbines;
- Costs and life cycle assessment;
- Leading edge erosion and protection;
- Noise control and environmental impact;
- Predictive maintenance and damage detection in wind turbines;
- Vertical-axis wind turbines for offshore wind energy;
- Wind-energy-based systems and simulations;
- Wind inflow modelling, prediction, and measurement;
- Wind farm layout and control;
- Wind resource assessment;
- Wind turbine aerodynamics and aeroelasticity.

### Guest Editors

Dr. Alessio Castorrini

Department of Mechanical and Aerospace Engineering, University "La Sapienza" of Rome, Rome, Italy

Dr. Paolo Venturini

Department of Mechanical and Aerospace Engineering, Sapienza University of Rome, 00184 Rome, Italy

### Deadline for manuscript submissions

closed (10 March 2023)



## Energies

an Open Access Journal  
by MDPI

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/92450](https://mdpi.com/si/92450)

*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)