

Special Issue

Cutting-Edge Applications of Wind Turbine Aerodynamics

Message from the Guest Editors

The advancement of wind turbine aerodynamics is crucial for optimizing the performance and efficiency of wind energy systems. This Special Issue aims to gather researchers and industry experts to discuss the latest innovations and technologies in wind turbine aerodynamics, focusing on enhancing energy capture and reducing operational costs. Key areas of interest include advanced aerodynamic modeling and simulation, innovative blade design, and control strategies to maximize efficiency and minimize wear and tear. Research topics of interest include, but are not limited to, the following:

- Advanced Aerodynamic Modeling
- Innovative Blade Design
- Control Strategies
- Turbine–Wake Interactions
- Noise Reduction Techniques
- Sustainability and Environmental Impact

By addressing these topics, this Special Issue aims to present groundbreaking research and practical solutions that will drive the future of wind energy, providing insights for both academic researchers and industry practitioners. The goal is to facilitate knowledge exchange and foster collaborations that will lead to more efficient, reliable, and sustainable wind energy systems.

Guest Editors

Dr. Chengyong Zhu

Dr. Xiang Shen

Dr. Yaoru Qian

Deadline for manuscript submissions

31 October 2025



Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



mdpi.com/si/210035

Machines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
machines@mdpi.com

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





Machines

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.7



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



About the Journal

Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications. Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided. There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Editor-in-Chief

Prof. Dr. Antonio J. Marques Cardoso
CISE - Electromechatronic Systems Research Centre, University of
Beira Interior, Calçada Fonte do Lameiro, P-6201-001 Covilhã, Portugal

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Mechanical) / CiteScore - Q1
(Control and Optimization)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.9 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).