

Special Issue

Advanced Control Systems in Wind Energy: Optimizing Performance from Component to Grid Integration

Message from the Guest Editor

This Special Issue targets an overview of the most recent control methods and research results at various levels—turbine, system and grid—to help considerably enhance all aspects of wind power. In this Special Issue, relevant contributions that summarize and present the most recent insights concerning the control strategies and technologies that are essential for improving the efficiency, reliability and grid compatibility of wind energy systems are sought. Topics of interest for publication include, but are not limited to, the following:

- Blade-Level Control;
- System-Level Control;
- Farm-Level Control;
- Grid Integration Control;
- Predictive and Adaptive Control;
- Decentralized and Hierarchical Control Systems;
- IoT and Edge Computing in Wind Energy Control;
- Energy Storage for System Integration of Control.

Your input in these areas would substantially enhance our knowledge and abilities in maximizing the performance of wind energy systems from the blade to the grid. We look forward to your innovations and insights.

Guest Editor

Dr. John Hall

Energy Production and Infrastructure Center & Mechanical Engineering and Engineering Science, University of North Carolina at Charlotte, 9201 University City Blvd, Charlotte, NC 28223, USA

Deadline for manuscript submissions

21 July 2025



Energies

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 6.2



mdpi.com/si/211968

Energies
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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 Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 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)