Special Issue

Numerical Modelling of Unconventional Wind Turbines

Message from the Guest Editor

This Special Issue seeks to disseminate original research articles, reviews and case studies on the design, modelling, performance, optimisation and real-world deployment of unconventional wind turbines to promote fundamental, multidisciplinary and applied research. This Special Issue offers a major opportunity to report advancements in unconventional wind turbine technologies with the aim of realizing their worldwide potential to harness both onshore and offshore wind energy. This Special Issue covers, but is not limited to, a wide range of topics, including the following

- Vertical axis wind turbines
- Bladeless wind energy systems
- Airborne wind energy technologies
- Ducted, shrouded or diffuser-augmented turbines
- Architectural and building-integrated wind turbines
- Bio-inspired or origami-based turbine blades
- Experimental investigations and wind tunnel testing
- CFD simulations and aerodynamic optimization
- Structural dynamics and sustainable materials
- Hybrid renewable systems combining unconventional wind with solar, etc.
- Techno-economic, environmental and lifecycle assessments
- The application of AI for unconventional wind turbine design and optimisation.

Guest Editor

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Deadline for manuscript submissions

closed (20 May 2026)

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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.

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