

Special Issue

Mechanical Design and Aerodynamic Optimization of Wind Turbine Components

Message from the Guest Editor

We invite you to contribute to the Special Issue "Mechanical Design and Aerodynamic Optimization of Wind Turbine Components" in *Machines*. As demand for clean energy grows, wind power plays a key role in achieving carbon neutrality. High efficiency, reliability, and structural integrity in wind turbines require advanced mechanical design and aerodynamic optimization, especially for large-scale and offshore turbines facing complex flow dynamics and fluid–structure interactions. This issue covers cutting-edge research on modeling, simulation, design, and optimization of wind turbine components. Topics include aerodynamic shape optimization, load mitigation, lightweight structures, fatigue analysis, and fluid–structure interaction. Contributions using CFD, structural mechanics, machine learning, or experiments are welcome. Papers addressing offshore and floating wind turbine challenges are encouraged. We look forward to your submissions.

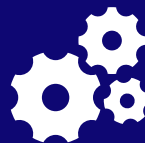
Guest Editor

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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.

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