



Modelling, Design and Optimization of Wind Turbines

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Message from the Guest Editors

Dear Colleagues,

Modern wind turbines are pushing the envelope in multiple ways: at sea, where floating wind is starting to gain momentum and the ever larger rotors that are being developed are pushing us into uncharted territory in regard to external conditions, aeroelasticity and system dynamics; and on shore, where developers have been dealing with aging wind parks and their repowering.

This Special Issue aims to gather relevant contributions and recent advancements in the fields of wind turbine experimental and numerical modelling practices. Topics of interest for this Special Issue include, but are not limited to, the following:

- Experimental and numerical wind turbine modelling;
- Wind turbine load and dynamics computation and modelling;
- Advancements in wind turbine wake numerical and experimental modelling;
- Advancements in wind turbine design;
- Advancements in vertical-axis wind turbine design, modelling and optimization;
- Optimization methods for wind turbines;
- Co-design of wind turbines;
- Wind farm design and optimization;
- Modelling of wind turbine degradation phenomena such as erosion, icing and dirt accretion.





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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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