

Special Issue

Vertical Axis Wind Turbines: Current Technologies and Future Trends

Message from the Guest Editors

Wind power has now become a major power source. The majority of it is produced via the large horizontal-axis wind turbine (HAWT), the size of which continues to increase. However, the difficulty of increasing its size has become apparent, and reducing the impact on the environment has also become an issue. In order to achieve carbon neutrality, it is necessary to pursue every possibility, and there are great expectations for the widespread use of vertical-axis wind turbines (VAWTs) and the resolution of these problems. Wind farms using small, low-cost VAWTs is considered to be one such promising technique. The purpose of this Special Issue is to collate original papers and review papers on various topics related to vertical-axis wind turbines, and to investigate new possibilities of vertical-axis wind turbines. Keywords:

- vertical-axis wind turbine (VAWT)
- aerodynamics related to VAWT
- computational fluid dynamics of VAWT
- blade element momentum theory of VAWT
- reduction in costs of VAWT
- control of VAWT
- wake analysis of VAWT
- wind farm of VAWT
- closely spaced arrangements of VAWTs
- interaction between VAWTs

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Deadline for manuscript submissions

closed (31 October 2025)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 8.3



mdpi.com/si/192801

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