

Special Issue

Wind Energy Assessment Based on CFD Simulations and Analytical Techniques

Message from the Guest Editors

Wind energy stands to play a crucial role in ensuring sustainable energy development in the world as its potential is abundant across the globe. However, the conversion capability of the existing wind turbines is still unsatisfactory and far from the Betz limit. This inability stems from both technological constraints such as an efficient design of the wind turbine rotor, generator/alternator and gearbox and environmental issues such as appropriate site selection (micrositing) and wind regime characteristics.

This Special Issue aims to address recent developments on wind turbine rotor design improvement through CFD simulations as well as analytical assessment on site siting and wind regime characteristics. Topics include, but are not limited to:

- CFD simulations;
- Wind turbine design;
- Fluid flow characterizations;
- Wind power assessment;
- Site siting;
- Wind regime characteristics.

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