

## Special Issue

# Wind Turbine Aeromechanics: Theory, Methods and Applications

### Message from the Guest Editor

This Special Issue aims to present the most recent advancements in wind turbine designs to address the emerging challenges in the wind turbine industry. Topics of interest for publication include, but are not limited to, the following:

- Feasibility of different types of wind turbines for integration into the wind energy industry for integrated and local applications;
- Wind turbines at onshore and offshore windfarms;
- Offshore platform design for HAWTs and VAWTs;
- Aerodynamics of HAWTs and VAWTs and their respective challenges;
- Novel methods to investigate the aerodynamics of wind turbines;
- Novel solutions to improve the aerodynamic performance of wind turbines;
- Theories to predict turbine performance;
- Wind turbine digital twin;
- Aeroelastic investigation of turbine blades, joints, and bearings on a large scale;
- Novel strategies to reduce the manufacturing, installation, and maintenance costs;
- Feasibility of integrating hydrokinetic and tidal turbines into the wind energy industry;
- Hybrid renewable energy systems.

### Guest Editor

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### Deadline for manuscript submissions

closed (15 July 2025)



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### Message from the Editor-in-Chief

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