



## Approaches for the Design and Optimization of Wind Farms

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### Message from the Guest Editors

This Special Issue aims to collate cutting-edge research and innovative methodologies that address the challenges in the planning, design, and optimization of wind farms. The scope of this Special Issue spans a wide range of topics, including the application of computational fluid dynamics, aerodynamic modeling, structural analysis, site assessments, and resource forecasting. Additionally, it will cover advancements in control systems, energy storage integration, and the economic and environmental assessment of wind energy projects.

Topics of interest include, but are not limited to, the following:

- The aerodynamic and structural modeling of wind turbines;
- Site assessment and resource forecasting techniques;
- The optimization of wind farm layouts and turbine placement;
- The integration of energy storage systems with wind farms;
- Control systems for maximizing wind farms' efficiency;
- Economic and environmental impact assessments of wind energy projects;
- Innovative simulation techniques and software for wind farm design;
- Case studies and real-world applications of wind farm optimization.



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