Special Issue

Advanced Wind Energy Systems: Comprehensive Insights into Analysis, Design, Control, and Optimization

Message from the Guest Editor

The intention of this special issue is to curate and distribute the most contemporary breakthroughs concerning the design, optimization, application, control, and health monitoring of wind energy systems. Areas that are particularly compelling for publication include, but are not limited to, the following:

- High-fidelity, efficient aerodynamic models for wind turbines;
- Socio-economic considerations in wind energy deployment and management;
- AI and machine learning in wind turbine design and predictive control;
- Digital twins for real-time turbine performance monitoring;
- Eco-design principles for sustainable wind turbine lifecycle;
- Additive manufacturing for turbine component enhancement;
- Topology optimization for peak turbine efficiency;
- Integrated design approaches emphasizing total turbine optimization;
- IoT in turbine design for real-time data and adaptive operation;
- Cloud-based tools for turbine modeling and optimization.

Guest Editor

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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