

Special Issue

Progress and Challenges in Wind Farm Optimization

Message from the Guest Editors

This Special Issue will explore cutting-edge advancements in wind farm optimization, focusing on layout design, operational strategies, predictive maintenance, and the integration of emerging technologies such as machine learning and artificial intelligence. Key areas of interest include optimizing wind farm layouts to maximize power output, mitigating wake effects, minimizing operational costs, and enhancing grid integration. Additionally, innovative approaches to environmental impact reduction, such as noise minimization and ecological considerations, will be addressed. The topics of interest for publication include, but are not limited to, the following:

- Wind farm layout optimization;
- Operational and control strategies;
- Predictive maintenance and cost reduction;
- Wake effect modeling and mitigation;
- Integration of wind energy with hybrid systems;
- Machine learning and AI applications in optimization;
- Environmental impact assessments and mitigation.

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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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