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Control, Real-Time Monitoring and Optimization for Wind Power Systems

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Message from the Guest Editors

The intelligent operation control of the wind power system is the key technology to improving power generation, reducing the fatigue damage of wind turbines, enhancing the friendliness of grid connection, and reducing the Levelized Cost of Energy throughout the whole life cycle. This content has become a common concern of theoretical research and engineering application. Therefore, this Special Issue aims to research the control, real-time monitoring, and optimization methods for wind power systems. Topics of interest include, but are not limited to:

1. Control of wind turbines, including onshore, fixed/floating offshore wind turbines to increase power generation or decrease structural loads;
2. Wake control of wind farm(s);
3. Control of wind power systems to actively support power grids;
4. Other assistive control technologies, including forecasting of wind speed and wind power; modelling of wind flow, wind turbine, and wind farm(s), etc.;
5. Health management of wind turbines, including condition monitoring, fault diagnosis, early warning, maintenance planning, etc.;
6. Optimization of planning and operation of a multi-energy system including wind, solar, hydro, and energy storage.



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Special Issue



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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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