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A Mass Adoption of Power Electronics in Wind Power System

Dear Colleagues,

In recent years, there has been a significant increase in the utilization of renewable energy sources such as wind power, driven by the necessity of sustainable and clean energy. Wind power has emerged as a major contributor to the global energy mix, with the potential to play a significant role in satisfying the growing energy demand worldwide. In order to harness the full potential of wind power, power electronics technology has become an essential component of wind energy systems.

This Special Issue of the MDPI journal Electronics seeks to showcase recent research advances in the field of power electronics in wind power systems. The focus of this Special Issue is on innovative power electronics solutions that enable efficient and reliable wind power generation, while addressing the unique challenges that are associated with wind energy conversion. We invite authors to submit original research articles, reviews, and perspectives that highlight recent advances in power electronics for wind power systems. Topics of interest include, but are not limited to, the following:

- Power electronics for wind turbines, including power converters, control strategies, and protection systems;
- Integration of wind power systems with the electric grid, including grid connection and control strategies;
- Power electronics solutions for offshore wind power systems, including floating wind turbines, subsea cables, and offshore wind farm control;
- Innovative power electronics technologies for wind energy storage, including batteries, supercapacitors, and flywheels;
- Reliability and fault tolerance of power electronics in wind power systems.

Special Issue Website

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