

The aim of the present paper is to design a predictive control strategy that enhances the quality of generated power from a wind turbine system. The study begins by thoroughly describing ...

This scholarly paper offers a wind power generation system (WPGS) that utilizes a configuration of parallel five-phase permanent magnet synchronous generators (PMSGs).

The multiphase machines and their associated multiphase power electronics converters bring a number of system advantages including increased reliability, enhanced power, and torque density, improved ...

New developments in generators and power converters for multi-MW wind turbines are needed, as the trend toward upscaling the dimensions of wind turbines is expected to continue.

This Review discusses the current capabilities and challenges facing different power electronic technologies in wind generation systems from single turbines to the system level.

This paper reviews the advancements in multiphase energy conversion for wind power generation, highlighting its growing importance as a renewable energy source.

This paper presents an overview on the multiphase energy conversion of wind power generation and introduces the pertinent technology advances, including the design of multiphase wind...

In this study, a new transformerless wind energy conversion system to integrate high-power multi-phase permanent magnet wind generators to medium-voltage local grids is presented.

It shows that the power transfer efficiency of the wind farm to the grid is improved, and parameters such as THD, energy loss, and computational complexity are minimized in this proposed ...

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