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FUZZY BASED MPPT CONTROLLER OF WIND ENERGY CONVERSION SYSTEM USING PMSG

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ABSTRACT

The wind energy is one of the most developed renewable energy resources. The paper describesstator side & grid side converter using a fuzzy logic controller. The system includes a wind turbine, permanent magnet synchronous generator (PMSG) & Converters. The MPPT technique applied rotor/stator side converter control& Grid side converter control. The stator/rotor side converter control in using the fuzzy logic controller to extract the maximum power and the grid side converter control in usinga fuzzy logic controller to ensure a smooth DC link voltage between two converters.

KEYWORDS:*Fuzzy Logic Controller (FLC), Maximum Power Point Tracking (MPPT), Wind Energy Conversion System (WECS), Permanent Magnet Synchronous Generator (PMSG)*

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