

عنوان مقاله:

Study on Performance of MPPT Methods in WRSG-based Wind Turbines utilized in Islanded Micro Grid

محل انتشار:

پنجمین کنفرانس بین المللی مهندسی برق و کامپیوتر با تاکید بر دانش بومی (سال: ۱۳۹۶)

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خلاصه مقاله:

Wind energy systems are progressively used in different micro grids. Maximum power point tracking (MPPT) plays a critical role to improve the efficiency of wind energy conversion system (WECS). This Paper provides a comparison between common MPPT methods, including power curve, tip speed ratio (TSR) and optimal torque control (OTC). Then their effects on behavior of an islanded micro grid during and after overload has been investigated. The results indicate that OTC has better behavior than other methods. The studied system is a micro grid with high share of renewable energy resources containing a WECS driven by wound rotor synchronous generator (WRSG), a synchronous diesel unit and some active and reactive loads

کلمات کلیدی:

Micro grid; Wind turbine; Maximum power point tracking (MPPT); Wound rotor synchronous generator (WRSG); Overloading; Short circuit fault

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