

Abstract

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Simulation of a Wind Turbine Driving a Grid Connected Induction Generator

This paper presents modelling and simulation of a wind turbine driving a grid connected induction generator. A DC motor is used to emulate the performance of the wind turbine. Different parts of the system have been modeled using MatLab – Simulink. A model of a DC motor derived by a converter is employed to emulate the performance of the wind system. A speed control loop is used to force the dc motor shaft to follow the induction generator shaft which is coupled to the wind turbine.