

Abstract

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LOW VOLTAGE RIDETHROUGH INVESTIGATION USING A MODULAR SIMULINK IMPLEMENTATION OF DOUBLY FED INDUCTION GENERATOR WIND TURBINES

This paper investigates the Low Voltage Ride-Through (LVRT) capability of grid-connected Doubly Fed Induction Generators through the construction of a developed comprehensive modular model of the DFIG, its associated converters, controllers. Stator Voltage Oriented Control (SVOC) is used to control both converters. System transients are further analyzed with; without addition of an active crowbar to the rotor terminals of the DFIG. Areas of improved performances, current restrictions; recommended enhancements are further included.