

# **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 &#97;&#110;&#100; modular model of the DFIG &#97;&#110;&#100; its associated converters &#97;&#110;&#100; controllers. Stator Voltage Oriented Control (SVOC) is used to control both converters. System transients are further analyzed with &#97;&#110;&#100; without addition of an active crowbar to the rotor terminals of the DFIG. Areas of improved performances, current restrictions &#97;&#110;&#100; recommended enhancements are further included.