

This paper presents a real time simulation of doubly-fed induction generator (DFIG) control for wind turbine generation system (WTGS). A decoupled power control based algorithm is used to drive the whole system. Where two PI controllers are designed in order handle the active and reactive powers, while a third one is employed to keep a same voltage in the DC-Link. In order to verify the whole algorithm, a real-time simulation is done by means an RT-Lab package which represents a suitable hardware and software for this kind of applications