

## **Power Control of a Doubly-Fed Induction Generator Used in Wind Turbine by RST Controller**

**Authors :** A. Boualouch, A. Frigui, T. Nasser, A. Essadki, A.Boukhriss

**Abstract :** This work deals with the vector control of the active and reactive powers of a Double-Fed Induction generator DFIG used as a wind generator by the polynomial RST controller. The control of the statoric power transfer between the machine and the grid is achieved by acting on the rotor parameters and control is provided by the polynomial controller RST. The performance and robustness of the controller are compared with PI controller and evaluated by simulation results in MATLAB/simulink.

**Keywords :** DFIG, RST, vector control, wind turbine

**Conference Title :** ICEE 2014 : International Conference on Electrical Engineering

**Conference Location :** Paris, France

**Conference Dates :** June 26-27, 2014