عنوان مقاله:

A study on the effects of wind speed and short circuit on wind turbines connected to the grid via doubly-fed induction generator (DFIG)

محل انتشار:

چهارمین کنفرانس بین المللی رویکردهای نوین در نگهداشت انرژی (سال: 1393)

تعداد صفحات اصل مقاله: 13

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خلاصه مقاله:

The increasing growth of using new sources of energy to overcome the environmental issues and to answer the energy demands, has led to a great progress in technologies which use recyclable energies. Using the wind energy for different purposes dates back to more than three thousand years ago. The most useful method of using the wind energy is generating electrical energy. Since the production sources are scattered, these sources should be least affected by the environment around them; then they can feed a stable power to their network. The present study aims to evaluate the reaction of control systems governing a wind turbine with double feeding generator a during a sudden change of wind velocity as well as during occurrence of a three phase short circuit in output of double feeding generator eyes. Using the simulation by MATLAB/Simulink the pitch angle of the wind turbine, in order to provide the stable power for the network connected to it and the condition of active and reactive power infused to the network by wind turbine is shown

کلمات کلیدی:

Doubly-fed induction generator (DFIG), Pitch Angle; Rotor side converter (RSC), Grid side converter (GSC), Voltage Source Converter (VSC)

لینک ثابت مقاله در پایگاه سیویلیکا: