سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
گواهی ثبت مقاله در سیویلیکا
CIVILICA.com

عنوان مقاله:

Evaluation of frequency control in wind turbines based ondoubly fed induction generator using IPSO algorithm

محل انتشار:

هشتمین کنفرانس انرژی بادی ایران (سال: 1401)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Amin Aboutalebi Najafabadi - *Amir Kabir University of Technology, Tehran, Iran*

Seyed Hossein Hosseinian - *Amir Kabir University of Technology, Tehran, Iran*

خلاصه مقاله:

In recent years, by increasing penetration of windenergy and application of wind turbines, specially based on doublyfed induction generator (DFIG) in power system, many studieshave been conducted to investigate the effect of wind turbines onsystem and network frequency. In fact, these types of turbineshave negative effects on network frequency with high efficiency.In this paper, in addition to the principles of frequency control intraditional power plant, structure and mode of wind turbineconnection based on doubly fed induction generator is introducedand the performance of this type of wind turbine after diversionand changing the frequency of the system is investigated. In thispaper, by applying an intelligent algorithm (IPSO) to improve thefrequency distortions caused by disturbances in the system andcomparing it with other intelligent algorithms, a better frequencyresponse is proposed for the network .and system

کلمات کلیدی:

frequency control; wind turbine based on doubly fedinduction generator; variable speed wind turbine, particle swarmoptimization; improved particle swarm optimization

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/1560456