

عنوان مقاله:

Wide area controller design of STATCOM and PSS in Multimachine power system using BF-PSO Algorithm

محل انتشار:

هفتمین کنفرانس تخصصی حفاظت و کنترل سیستم های قدرت (سال: 1391)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Mojtaba Khederzadeh - *Department of Electrical Engineering, Power & Water University of Technology, Tehran, Iran*

Hamid Ahfadi - *Department of Electrical Engineering, Power & Water University of Technology, Tehran, Iran*

Ehsan Rezaeinejad - *Department of Electrical Engineering, Power & Water University of Technology, Tehran, Iran*

Meisam Sadeghi - *Tabriz Electric power Distribution Company, Tabriz, Iran*

خلاصه مقاله:

In this paper, an optimal wide area controller is designed for a multi-machine power system together with a Static Compensator (STATCOM). Wide area control signals are used to provide auxiliary control to power system stabilizers (PSS) and STATCOM in order to achieve enhanced damping of system oscillations in power systems. A modified intelligent Particle Swarm Optimization (BF-PSO) has been used for optimal and coordinated selection of the STATCOM and Power System Stabilizers (PSS) of generators wide area damping controller parameters. Then, bus (Kundur) power system to indicate that the proposed-۱۰ machine-۴ Simulation results are provided in a sample wide area controller improves the damping of the rotor speed deviations of the generators during large scale disturbances. Simulation results have shown that the proposed coordinated wide area controller using modified BF-PSO can reach to optimal and coordinated selection of the STATCOM and PSS damping controller parameters accurately and has better performance in damping oscillations

کلمات کلیدی:

component; wide area controller; STATCOM; PSS; PSO algorithm; coordinated design

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/335246>

