

عنوان مقاله:

Reactive /Voltage control by A Multi-agent based PSO approach considering voltage stability

محل انتشار:

بیست و چهارمین کنفرانس بین المللی برق (سال: 1388)

تعداد صفحات اصل مقاله: 8

نویسندگان:

A.H Khazali - *Center of Excellence for Power System Automation and Operation, Iran university of science & Technology Tehran, Iran*

M Kalantar - *Center of Excellence for Power System Automation and Operation, Iran university of science & Technology Tehran, Iran*

خلاصه مقاله:

This paper presents a Multiagent based particle swarm optimization (MAPSO) for optimal reactive & voltage control. Optimal reactive/voltage control is a mixed integer, nonlinear optimization problem which includes both continuous and discrete control variables. The proposed algorithm is used to find the settings of control variables such as generator voltages, tap positions of tap changing transformers and the amount of reactive compensation devices to optimize a certain objective. The objectives are power transmission loss, voltage stability and voltage profile which are optimized separately. In the presented method, the inequality constraints are handled by penalty coefficients. The study is implemented on IEEE 30 system and the results are compared with other evolutionary programs such as (simple genetic algorithm (SGA) and particle swarm optimization (PSO).

کلمات کلیدی:

Optimal reactive power dispatch; Multiagent based PSO; Optimization; Loss minimization

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/89205>

