

## عنوان مقاله:

Reactive Power Control to Minimize Power System Losses Using the GWO Algorithm

## محل انتشار:

هشتمین کنگره ملی تازه های مهندسی برق و کامپیوتر ایران (سال: 1400)

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## خلاصه مقاله:

In this paper, optimization of reactive power flow of IEEE 6 bus standard system is used with parallel capacitors with the aim of minimizing the system active power losses. Generators voltage, status of transformers tap and switchable parallel capacitors banks are considered as variables of reactive power dispatch. The Grey Wolf Optimizer algorithm is used to optimization of IEEE 6 bus standard system with the aim of the minimizing the system active power losses. The results showed that system losses after optimization is decreased ۲۵%. It was determined that when the control and state variables of reactive power optimization problem are optimally determined with the aim of minimizing the system losses, all of the state and control variables are in their determined range. The simulation results showed that .by optimal injecting the reactive power into system, the voltage profile at system buses is improved

## کلمات کلیدی:

distribution network, reactive power optimization, losses, voltage profile, Grey Wolf Optimizer

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1368759>

