

# OPTIMAL POWER FLOW USING TABU SEARCH

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## Abstract

Optimal power flow (OPF) is one of the main functions of power system operation and control. Solving such problems requires efficient optimization algorithms. This letter describes the development of an efficient tabu search (TS) algorithm for solving the optimal power flow problem. The developed algorithm was tested against a modified IEEE-RTS-24-bus test system. The results were compared with ones obtained from sequential quadratic programming (SQP) and evolutionary programming (EP) techniques. All approaches give more or less the same optimal solutions. Tabu search is the most efficient technique among these, since it consumes minimum computing time and provides accurate solutions.

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