UNIVERSITI TEKNOLOGI MARA

SOLUTION OF ECONOMIC DISPATCH USING PARTICLE SWARM OPTIMIZATION

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ABSTRACT

This thesis discusses the solution of Economic Dispatch (ED) problems which is to minimize the total cost of generation in power system operation by using Particle Swarm Optimization (PSO). In this study, the PSO is suggested in order to improve the local search by allocating generation among the committed units such that the constraints imposed are satisfied and the energy requirements are minimized. The proposed PSO method is developed using MATLAB programming. The PSO method is tested on six generator units system. The results obtained proved that PSO is able to solve the problem with minimum total cost of generation.

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