PARTICLE SWARM OPTIMIZATION FOR SOLVING COMBINE ECONOMIC AND EMISSION DISPATCH

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ABSTRACT

The main objective of power system optimization with environmental consideration is to schedule the generating units within the best operating limits in order to minimize the total operating cost of power generation while considering the environmental constraint into account. This paper proposes a Particle Swarm Optimization (PSO) approach for solving Combined Economic and Emission Dispatch (CEED) problem by satisfying the total load demand and all the operational constraints. PSO will optimize the economic and emission dispatch (EED) simultaneously in order to get a balanced and optimal cost between emission and economic dispatch. The proposed method was tested on a six generating unit system and the results obtained show that this method is able to solve CEED problem.

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