Abstract

The main objective of the Economic Dispatch (ED) problem is to find optimal allocation of output power among the various generators available to serve the system load. It is necessary to incorporate wind and pumped storage plants in classical economic dispatch problem due to the increase in the use of renewable energy sources. The cost of power generation will be considerably reduced due to the renewable energy resources. This paper
proposes a Stochastic Economic Dispatch (SED) model incorporating wind and pumped storage generators in addition with the thermal generators. Premature convergence and high computation time are the main drawbacks of the traditional PSO algorithm to solve the optimization problems. In this work a Modified PSO (MPSO) algorithm is proposed to remove the drawbacks of the traditional PSO to solve the proposed SED problem.

References

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Solution of Stochastic Economic Dispatch Problem using Modified PSO Algorithm


Index Terms
Computer Science
Network Application

Keywords
Stochastic Economic Dispatch  Wind Generators  Pumped Storage Plants  Modified Particle Swarm Optimization.