Abstract

In recent years increasing of thermal power plants air pollution and concentration of carbon dioxide emission leads to the global warming. This paper solves the economic dispatch problem includes the dispatch of systems to the minimize carbon dioxide emissions, as well as to achieve the minimum fuel cost. This paper proposed a lambda based approach for solving the Combined Economic and Emission Dispatch (CEED) problem using Evolutionary programming (EP) method considering the power limits. The CEED is to minimize both the operating fuel cost and emission level simultaneously while satisfying the load demand and operational constraints. The sample test system of three and six generator system solves the CEED problem for various load demands. The numerical results have shown the performance and applicability of the proposed method.

Reference

**Index Terms**

Computer Science Evolutionary Computation
Key words

Economic Dispatch
Combined Economic Emission Dispatch
Carbon dioxide Emission
Evolutionary Programming Technique
Global Warming