Abstract

Power system operation involves some kind of optimization for ensuring economy, security and stability. Economic load dispatch (ELD) is one such optimization problems and it is applied for minimizing the total fuel cost. Optimizing the fuel cost is done by properly setting the real power generation from the generators in a power system. In this work, ELD is achieved by considering two different cost functions. The bio inspired bat optimization algorithm (BOA) is used for optimally setting the values of the control variables. The BOA is a recently developed algorithm and is with less number of operators. The algorithm can be coded in any programming language easily. The proposed algorithm is tested on the standard IEEE-30 bus system and the results are compared with those of the other algorithms reported in the literature.

References

Application of Bat Optimization Algorithm for Economic Load Dispatch Considering Valve Point Effects

878–885, July 2010.

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