The Firefly Meta-Heuristic Algorithms: Developments and Applications

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Abstract

ð The global solution becomes the dream of the researchers, who are interested in optimization techniques. They believe that, the global solution will provide the optimum conditions for the operation. Operations research is the main umbrella for the optimization techniques that study the shortest and critical path to achieve the activities of a project. Thus, the researchers concern the optimization techniques development; especially the meta-heuristic techniques. Researchers aim to obtain the techniques that provide the global solution with minimum time of operation. Firefly algorithm (FA) has been considered one of the meta-heuristic techniques developed to solve the optimization problems using the simulation of the behavior of the fireflies. Much searches prove the high accuracy and quality of the results of the optimization techniques solved by the FA. This paper analyses and summarizes most of these developments and applications. This paper gives a literature survey for different combinations of HPGS that consist of different combinations of PV, WT, SB MT, diesel generator, and Fuel Cell.

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