Abstract

There are various metaheuristic algorithms which can be used to solve optimization problems efficiently. Among these algorithms, nature-inspired optimization algorithms are attractive because of their better results. In this paper, four types of metaheuristic algorithms such as ant colony optimization algorithm, firefly algorithm, bat algorithm and cuckoo search algorithms were used as the basis for comparison. Ant colony optimization algorithm is based on the interactions between social insect, ants. Firefly algorithm is influenced by the flashing behavior of swarming firefly. Cuckoo search uses brooding parasitism of cuckoo species and bat algorithm is inspired by the echolocation of foraging bats.

References

A Study from the Perspective of Nature-Inspired Metaheuristic Optimization Algorithms


Index Terms

Computer Science

Algorithms

Keywords

Metaheuristic, ant colony optimization algorithm, firefly algorithm, bat algorithm, cuckoo search algorithm.