Abstract

For optimization tasks the most important and powerful algorithms are those which are inspired by the nature. The main goal of this work is the betterment of an existing algorithm called Cuckoo Search (CS) Algorithm. Cuckoo Search Algorithm (CS) is inspired from nature and related with Meta heuristic portion. This algorithm is based on random process and has behavior of some birds and fruit flies and some assumptions. Each assumption is highly observed to maintain their characteristics. This is a theoretical result research paper, of betterment for the Cuckoo Search (CS) Algorithm.

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**Index Terms**

Computer Science  
Algorithms
Keywords

Meta heuristic; Bioinformatics; Nature Inspired Algorithms; Cuckoo Search (CS) algorithm; Improved Cuckoo Search (ICS) algorithm; Lévy flight.