Abstract

Cuckoo Search(CS) is one of many Nature-Inspired Algorithms that has an impressive performance on optimization problems for the case of real numbers. CS also promises good performance for the case of discrete problems such as combinatorial problem the Travelling Salesman Problem due to Levy Flights operation that become a powerful operator in searching process.

This Final Assignment introduces CS to complete the one-dimensional symmetric TSP. CS major development for this TSP lies in Levy Flights, which is modified with inverse mutation.

The test results indicate that CS also performs well for the TSP. From the four cases examined, CS managed to find a solution for the first dan the last case, CS gave a good result for the second dan the third case.

Keywords: cuckoo search, travelling salesman problem, lévy flights, inverse mutation.