A Comparative Study of Adaptive Crossover Operators for Genetic Algorithms to Resolve the Traveling Salesman Problem

Abstract

Genetic algorithm includes some parameters that should be adjusting so that the algorithm can provide positive results. Crossover operators play very important role by constructing competitive Genetic Algorithms (GAs). In this paper, the basic conceptual features and specific characteristics of various crossover operators in the context of the Traveling Salesman Problem
A Comparative Study of Adaptive Crossover Operators for Genetic Algorithms to Resolve the Traveling Salesman Problem (TSP) are discussed. The results of experimental comparison of more than six different crossover operators for the TSP are presented. The experiment results show that OX operator enables to achieve a better solutions than other operators tested.

Reference

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Index Terms

Computer Science

Algorithms

Key words

Travelers Salesman Problem
NP-Hard Problem
Crossover Operator
probability of crossover
Genetic Algorithm