



RESEARCH ARTICLE

An Effect and Analysis of Parameter on Ant Colony Optimization for Solving Travelling Salesman Problem

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Abstract—*Ant Colony optimization has proved suitable to solve a wide range of combinatorial optimization (or NP-hard) problems as the Travelling Salesman Problem (TSP). The first step of ACO algorithm is to set the parameters that drive the algorithm. The parameter has an important impact on the performance of the ant colony algorithm. The basic parameters that are used in ACO algorithms are; the relative importance (or weight) of pheromone, the relative importance of heuristics value, initial pheromone value, evaporation rate, and a parameter to control exploration or exploitation. In this Paper we present the effect of parameter on ACO algorithm for solving Travelling Salesman Problem for 52 nodes.*

Keywords— *Ant Colony Optimization; Parameter tuning in ACO; Travelling salesman problem*

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