



PROJECT REPORT

**Comparison analysis of Local Searches for Solving
Symmetric Travelling Salesman Problem**

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ABSTRACT

This project serves as the alternative to brute force method and neural network. In this paper we are using two local searches, the “Nearest Vertice” and “Tree Upcycling, Christofides” algorithm. We implement both of them for comparison analysis. The control for this thesis is Gurobipy optimizer. Both algorithms will be compared to each other. We use total distance and runtime comparison. After that we take the next step to compare optimized version of both algorithms. After those several comparison analyses was conducted, we conclude the results in the end.

Keywords : Nearest Vertices Algorithm, Tree Upcycling (Christofides) Algorithm, Comparison Analysis.

