PAIRWISE COMPARISON METHOD IMPLEMENTATION TO TEST PERFORMANCE OF VARIANTS ARTIFICIAL INTELLIGENCE METHOD WHICH SOLVING TSP PROBLEM

Name: MUHAMMAD IBRAHIM OSWALDO
NRP: 5110 100 081
Departement: INFORMATCS ENGINEERING FTIF ITS
Supervisor: AHMAD SAIKHU, S.Si., MT.
BILQIS AMALIAH, S.Kom., M.Kom.

Abstract

In a case of decision making often requires the comparison of several different criterion. Pairwise Comparison is a method of paired comparisons that can be used to obtain the related tendency of each criterion being compared. The case study is the TSP problem which main problem is the selection of appropriate methods for solving the TSP.

Pairwise comparison matrix values obtained based on the degree of importance of the criterion table are compared. If the pairwise comparison matrix is acceptable feasibility, of the normalization process and the values of the weight vector is obtained, we can determine the final value of each method are compared. The best method is the method which has the highest end of the value.

In the construction of this model, authors will use matlab. From the test results that the model is built it can be concluded that the basic ant colony optimization algorithm is better than the basic genetic algorithm in solving TSP

Keywords: Basic Ant Colony Optimization (ACO), Basic Genetic Algorithm (GA), Kecerdasan Buatan, Pairwise Comparison Matrix, Travelling Salesman Problem (TSP).