Abstract

Tourism in Indonesia is growing rapidly from year to year which is causing an increase in both domestic and foreign tourists. One of the problems experienced by tourists when making tourist visits is related to the route of scheduling tourist visits. In previous research, a system has been developed to create a route for scheduling tourist visits using the Firefly Algorithm. Firefly Algorithm is one algorithm that is able to solve the Traveling Salesman Problem (TSP). However, in the research, it did not accommodate culinary tourism so we modified it by adding culinary time within a certain time span during lunch hour. This is done because culinary is also an attraction for tourists while on a tourist visit. We make additional culinary modifications by searching for the minimum travel time from the last tourist visit before entering lunchtime. The firefly algorithm will produce a scheduling route by accommodating culinary tourism in it, this is needed aiming to adjust the time so that it doesn't change after lunch. Based on the results of testing this research produces a running time, fitness value, number of nodes, and number of days that will be compared between multi-criteria with single-criteria, this is done to determine system performance on multi-criteria, this is done to prove that multi-criteria does not affect the performance of the system.

Keywords: culinary, tourism, firefly algorithm, scheduling, Traveling Salesmen Problem