

Abstract

Bandung Raya is one of the areas in Indonesia that the development of tourism is quite fast. The vast area of Bandung Raya, the number of new tourist spots emerging, until the first time tourists first come, making tourists quite difficult in knowing what place should be visited and which route to go which adjust resources owned by tourists like the time they have. To handle this then the designed application is a system that provides the most minimum route and know the arrangement of travel plans that adjust the time they have. The approach used in searching tourist route is Artificial Neural Network model that is Self Organizing Maps (SOM). The result that the best parameter to train SOM network in searching the most minimum route is learning rate $\alpha = 0.7$, number of neuron = 8 per city, N (iteration) = 800, and $r_0 = 23.2$. After the comparison with the heuristic TSP and SOM method before, the parameters that have been established to make SOM developed has a good performance that has a more minimal mileage. Then in the preparation of travel, the system can arrange travel adjust the duration of tourist tours with hours of tourism operations.

Keywords: artificial neural network, travelling salesman problem, tourists route, SOM