ABSTRACT

Bandung is a city that has a beautiful nature, friendly societies, tempting culinary taste buds, and a myriad of history. It is not strange if many domestic and foreign tourists who love to spend time sightseeing in the city of flowers. Usually still a lot of tourists that time not resolve well in spending his time while travelling. Of course this is caused by many things, one of which is the destination route is not optimal. In this final project we strive to assist travelers by generating optimal tourist routes with the constraint of time with the expectation of the time traveller becomes wasted a little more. The case is similar but not the same as the Traveling Salesman Problem (TSP). At the TSP, all nodes are considered the same so that a visit can be started from anywhere as long as it returns to the venue. Whereas, in this case, the node that represents a different kind of tourist destinations, such as hotels, restaurants, and so on. Thus, users can have a preference for the sequence of nodes that would like to visit. The algorithm that will be used in this case is an Artificial Immune System (AIS). AIS algorithm was inspired by the human immune system. The algorithm of the AIS in this case will result in a single fruit of antibodies which represents tourist route-order solutions are optimal.

Keywords: Routing, Artificial Immune Systems, Travelling Salesman Problem