Abstract

The high growth of urban population and the increasing of development activities in various sectors caused various problems in urban areas such as slums and garbage. In 2015 there are about 600 m^3 of Garbage per day transported from TPST to TPA in Tegal. In the process of transporting garbage only focuses on finding the shortest path but do not pay attention to the comfort of the residents who are in one of the garbage truck route. The purpose of this research is to search the shortest path and avoid path that have high population from TPST to TPA Tegal .

A* algorithm is used to search the shortest path and avoid path with high population of garbage truck in Tegal. The calculation begins by creating a network graph of garbage transport. TPST, TPA and intersection as nodes and roads connect between nodes as edge. After the network is formed, then do the search path with low population.

This research do in Tegal because there is no certain route for the truck driver to deliver the garbage. The A* algorithm is used in this research because in the process of finding shortest path, A* algorithm using heuristic value, so that in route selection can be produced an accurate route. In this case the result to be achieved is the shortest path with minimize through the high population area

Keywords: A*, node, path, TPST, TPA, intersection ,garbage transport, population density.