ABSTRAC

Trash cans cannot be predicted when they are full or empty, resulting in officers in their transportation often visiting empty bins and sometimes officers often return to the empty place. For this reason, smart monitoring is needed that can show the guidance of officers in transporting waste so that they do not need to visit the same garbage. This monitoring system uses ultrasonic sensors and loadcell sensors that are installed in each trash can, the system is continued with Fuzzy and Dijkstra processes. Fuzzy produces the decision value of the weight of the trash, the level of waste height and the length of the road, fuzzy results determine the edge value in the graph, the value is used for the route search process. In transportation using dijkstra from the initial node to all existing nodes. The system keeps repeating the process of updating values and comparing them until all nodes are complete. So that the system issues the results of the weights of all nodes in the graph, based on the value of the resulting weight, a route is created to determine the trash transport path. In the tests carried out in this study produced two different routes of the two experiments conducted, because the resulting fuzzy values were different.

Keywords: waste transport, fuzzy, dijkstra, sensors