

## **Abstract**

In general lines on the city's transport routes that exist today will pass major roads which have some characteristics, which would be frequently encountered public facilities like housing, parks, cemeteries, markets, places of worship, schools, stores, and offices. This research used the routes of transportation in Cicaheum-Ciwastra. The route search system uses the value of the distance between the dots the way yangsaling is connected and selected based on characteristics of the road. To be able to determine the route taken is already optimally used total travel time, and the total mileage as a benchmark on the route obtained from this search sisitem. In this research the search system using Genetic Algorithm as a solution searching route. On a search system that is created by using the Genetic Algorithm determined the number of chromosomes and the number of individuals who want to set up to get a combination of routes. The end result is obtained in the form of new routes with a total mileage of 26.540 Km journey to the time of 82.68 minutes.

Keywords: public transport, optimization, genetic algorithms, route