## ABSTRACT

The demand of a public transportations variety in a big city -especially angkutan kota (angkot)- is increasing day by day, due to the growing of facilities in the city. Transportation's variety increases as well as the rise of street. Just like what we see in Bandung, the capital of West Java. In fact, this situation makes another people become confused about choosing the shortest route of angkot they should take to go from one place to another.

This final project titled "ANGKUTAN KOTA ROUTING APPLICATION IN BANDUNG CITY USING GIS IMPLEMENTATION AND A\* ALGORITHM" will try to find the best solution for the problem. This application will describe about which angkot we should take from one place to another and how much money that we have to spend.

The aim focus of this application is to find the shortest distance and to analyze some heuristic functions that we can use in A\* algorithm. The three heuristic functions are Manhattan Distance, Diagonal Distance, and Euclidean Distance. And the variabels that this final project will analyze (beside the shortest distance) are the time process and the accessed nodes.

This application is developed by using the Visual Basic 6 programming language, MapInfo Professional 7.5, MapX, and Microsoft Office Access 2003. For those streets which are not passed over by angkot, the application will give solution "by foot".

*Keywords : Geographics Information System (GIS), A\* algorithm, heuristic,* angkutan kota (angkot), *route*