

ABSTRACT

The purpose of this final project is to determine the optimum Bandung city transportation route, in the case of the route of Abdul Muis-Dago. Increased number of alternative transportation and private vehicles make a number of public transportation users decreased, and low accessibility of the transport network system in Bandung are the reason why this research happened. This final project using several factors to determine the optimum route like data of labor, productive age, gender, and public places. All of that factors will be used to determine the path weight in graph. But first, we need to know the global weight of each factor, using analytical hierarchy process. Global weighting with analytical hierarchy process obtained by comparison of the level of importance of each factor which also contains statements from the interview with people who are experts. In this final project, the interview process conducted with the Department of Transportation Bandung. The results of these interviews will be processed using analytical hierarchy process to get the global weight of each factor. The global weight of each factor is used to obtain the weight of each road which will likely be passed by public transportation. The greater weight of the road will make the greater possibility of users of public transportation in the area of these roads. The Bellman-Ford algorithm, namely single-source shortest path algorithm that would search for the most optimal from any roads that have been implemented into a directed graph. Bellman-Ford algorithm can perform calculations by finding the shortest path between points with smallest path then known where the path traversed to the next point. The calculation process will be repeated the process until it is found the shortest path from the starting point to the end point. The results of this research are the new route is more optimal than the old route. The route is Terminal Kalapa - Jalan Dewi Sartika - Jalan Kautaman Istri - Jalan Balonggede - Jalan Pungkur - Jalan Karapitan - Jalan Sunda - Jalan Sumbawa - Jalan. P. Seram Luwuk Banggao - Jalan RE Martadinata - Jalan Ir.H.Djuanda - Jalan Hasanudin - Jalan Dipatiukur - Jalan Ir.H.Djuanda – Terminal Dago. Optimal in terms of driver revenue , passenger movement at any public places and optimal for the user based on road accessibility and travel time resulting from Abdul Muis to Dago

Keyword: *Analytical Hierarchy Process, Bellman-Ford Algorithm, Optimize, Routing, Shortest Path., Routing.*