ABSTRACT

Route are an important part in the system of transportation services, especially public transportation because of the presence of these good and evenly will produce a system that is efficient and effective, so the city transport as one of the leading providers of transportation services can be used as well as possible and be able to address the needs of population movement at the point of crowds requiring certain public transport services. In this study using population data to determine the distribution of the population in a village in the form of job data, productive age, gender and data load factor and then processed using AHP (Analytical Hierarchy Process) that produce global significance to be used in a graph representation of the city of Bandung with regard road network system and accessibility appropriate, then the searches performed by algorithm A * and use scenarios mandatory layover points so that population distribution in other areas of the city of Bandung is covered entirely. Analysis of the results observed in this study was the time and mileage, load factor and revenue predictions are viewed from three different viewpoints that of the driver, passengers and mediator then compared to the original route. The results obtained are the most optimal is the original trajectory abdul muis - tap as superior in terms of time and distance of 13,500 meters and 61 minutes and the load factor of 48.29%, and through the following Terminal Kebon Kelapa - Jalan Dewi Sartika - Jalan Kautamaan Istri - Jalan Balong Gede – Jalan Pungkur - Jalan Karapitan - Jalan Sunda - Jalan Sumbawa – Jalan Lombok - Jalan Banda - Jalan RE Martadinata - Jalan Merdeka - Jalan Aceh – Jalan Wastukencana - Jalan Abdul Rival – Jalan Cipaganti - Jalan Dr. Setiabudhi - Jalan Karang Sari - Jalan Sukajadi - Jalan Dr. Setiabudhi - Terminal Ledeng.

Keywords: A* Algorithm, Analytical Hierarchy Process (AHP), Public Transportation, Routing