ABSTRACT

City transportation is one of public transportation which is the main choice for the community, especially for those who do not have private vehicles to travel from one place to another. With its fast and cheap public transportation service is one of the main causes of traffic jams in the city of Bandung. By placing the Global Positioning System (GPS) on public transportation we can get the coordinates of the location. The device functions when the vehicle is turned on and will send data for any duration that has been set. This device can function as a vehicle tracking when the vehicle is on condition.

One method that can be used for this research is Support Vector Machine (SVM). This method is used because based on previous studies, Support Vector Machine (SVM) has a pretty good accuracy value compared to other methods. SVM can help improve system performance and look for relationships between urban transportation and existing congestion, through data obtained from the Global Positioning System (GPS). Achievement targets in this study are looking for relationships that occur between urban transportation and traffic congestion using the Support Vector Machine (SVM) method is expected to get high accuracy.

From the test results, the use of the SVM classification method produces an accuracy rate of 83.7% at a gamma value of 100 and a coefficient value (C) 1 and produces an accuracy rate of 81.6% on a confusion matrix value.

Keywords : *Public Transportation, Global Positioning System (GPS), Support Vector Machine (SVM).*