## ABSTRACT

City transportation is a means of public transportation that passengers currently use to travel without using their personal vehicles. Angkot is a mode of people traveling within the City to their destination based on a predetermined route. This transportation is the subject of discussion at this time because of the causes of congestion while the intended angkot is reducing traffic. Therefore we need a Global Positioning System (GPS) to determine the level of congestion in this angkot. Global Positioning System (GPS) can provide information where they are located, providing very accurate data.

From the test results, the use of the Artificial Neural Network classification method produces an accuracy rate of 81.30% at a epoch value of 1000 and a learning rate value 0.9 and produces an accuracy rate of 84.4 % on a confusion matrix value.

**Keywords** : *Public Transportation, Global Positioning System (GPS), Artificial Neural Networks (ANN).*