

Abstract

Motorized vehicles are a means of transportation that is often used by people in various big cities, one of which is in the city of Bandung. The number of vehicles that continue to increase becomes one of the factors causing congestion. The solution to deal with congestion needs to be done special handling such as traffic management. To facilitate the traffic management process, it is necessary to classify congestion. In this study, the classification of congestion is carried out, especially at the junction of Buah Batu. The method used is an Artificial Neural Network, then the data set is divided into 2 parts: 80% of training data and 20% of test data. Data on the number of vehicles based on time are input and output parameters which are the result of calcification in the form of a traffic jam or not. The classification calculation uses a 5-fold cross-validation. After running the program 13 times, an average precision value of 0.887 was obtained then an average recall value of 0.891 then an average score of f1-score of 0.878 and an average accuracy value of 0.931. In this study, the F1-score value is prioritized over the accuracy value, because this study has data with an unbalanced number of classes, and F1-score can assess the model made whether the two classes are well predicted or not.

Keywords: congestion, classification, artificial Neural network