Abstract

Dengue fever is a disease that is endemic in an area every year. This disease is caused by the dengue virus which is carried by the Aedes Aegypti and Aedes Albopictus mosquitoes. In some tropical countries, cases of dengue fever are still quite high, one of them is in Indonesia. One of the cities in Indonesia with a high number of dengue cases is Bandung. Information about the status of the high and low number of cases of an area, so that it can be known by the public correctly and accurately, information is needed about the classification of the distribution of the number of cases of DHF in each region in a city. So that information on the classification of the number of dengue cases can be used to assist the government in preventing the spread of the number of cases from spreading, it is necessary to use an appropriate classification method, with a fairly high accuracy. In this study, the classification method used is a combination of Naïve Bayes, K-Nearest Neighbor (KNN), and Artificial Neural Network (ANN) methods, with the hope that a predictive model for the classification of dengue fever can be built. The data used in this study is a dataset of the number of cases of the spread of dengue hemorrhagic fever in the city of Bandung in the period 2012-2018. The performance results obtained using the Naïve Bayes, K-Nearest Neighbor, Artificial Neural Network methods are 74%, 78%, 86%, respectively. To increase the accuracy of the classification results of the three methods, hybridization of the three methods is carried out. The results of the hybrid classifier with the voting method, turned out to be able to increase accuracy, to 90%.

Keywords: dengue fever, classification, Hybrid Classifier, Naïve Bayes, KNN, ANN