

Abstract

The growth of dengue fever cases in Indonesia every year is still stable in the high category class. Bandung is one of the big cities in Indonesia, with a relatively large number of cases of dengue fever, as many as 22,163 thousand in 2020. Many cases every year can be caused by a lack of public knowledge about dengue fever and not many available infographics about classification status in that area. This study uses the machine learning method to classify DHF case data based on the relevant attributes. Also, development of a classification prediction model based on time and prediction map from 30 sub-districts in the city of Bandung for the next three years. The machine learning method applied is naive bayes and k-nearest neighbor. As a result, naive bayes and k-nearest neighbor models are equally strong in predictions 2021 and 2022 with 97% and 100% accuracy. In 2023, naive Bayes model excels with 97% accuracy compared to 90% of k-nearest neighbor model. Predictions for 2021 and 2022 have the same distribution. The difference is in 2023, medium case distribution goes from 13% to 16% and high cases distribution run into downtrend from 87% to 84%.

Keywords: dengue fever, map prediction, naïve bayes, k-nearest neighbor, Bandung