ABSTRACT

COMPARISONAL ANALYSIS OF PERFORMANCE OF NAIVE BAYES AND RANDOM FOREST ALGORITHM ON NUTRITIONAL STATUS OF TOLLS AND CHILDREN IN JATILAWANG

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Nutritional status is a person's nutritional situation that can be detected whether a person has good, bad, and excess nutrition. Incorrect nutrition will be a health disorder caused by a lack or excess of nutritional balance that can affect growth. Based on the results of the 2021 Indonesian Nutritional Status Study (SSGI) from 34 provinces grouped into four categories, one of the categories is CHRONIC-ACUTE where 27 provinces fall into that category. The standard from WHO itself applies categories for stunting to a maximum of 20% while wasted a maximum of 5%. There needs to be innovation efforts to meet the target of 2.7% per year in order to meet the RPJMN, which is 14% with the accuracy of the interventions carried out. The data obtained makes this study will use classification to categorize several problems such as nutritional status. The purpose of this study was to analyze the best performance of the Naive Bayes and Random Forest Algorithms used in the nutritional status classification process with data on toddlers and children in Jatilawang. The accuracy results in the training data show that Random Forest s are superior with an accuracy value of 87%, while Naive Bayes are 84%. Then when viewed from the computing time, the Naive Bayes is somewhat faster with the time needed is only 0.004 second while the Random Forest is 13.16 second. The accuracy of the testing data obtained by the Random Forest algorithm is superior with a value of 88% while Naive Bayes is 86%. Meanwhile, the computational time obtained Naive Bayes is faster with the required execution time of 0.006 second while Naive Bayes are 0.036 seconds.

Keywords: ***Classification , Child Nutrition, Naive Bayes, Random Forest***