

## ***ABSTRACT***

Diabetes is one of the most prevalent diseases in society today. In 2021, the International Diabetes Federation (IDF) reported that there were 537 million adults aged 20-79 living with diabetes. This means that 1 in 10 people worldwide are living with diabetes. Diabetes also causes 6.7 million deaths, or 1 death every 5 seconds. Indonesia, as a country, has the fifth highest number of diabetes cases in the world, with a population of 19.47 million people affected by diabetes. Predicting the likelihood of developing diabetes can be done using various techniques, one of which is data mining. Previous research has primarily compared different algorithms to determine the best one. As a result, the implementation of prediction methods has been limited to using only one algorithm, closing the possibility of obtaining predictions from other algorithms. This study aims to develop a classification algorithm by combining multiple classification algorithms using an ensemble method. Based on the previously explained research results, it can be concluded that among the tested algorithms, the Weighting Ensemble Method performs the best with an accuracy of 79%. This indicates that the weighting given to the base algorithms can make the ensemble method more effective in improving accuracy.

Kata kunci: *diabetes, prediction, algorithm, data mining, ensemble method*