

Abstract

Diabetics in Indonesia are quite a lot, one of them is diabetes mellitus. Deaths caused by this disease are also not small. Early detection for diabetes mellitus is needed to reduce the risk of death in this disease. Early detection is usually done by checking blood sugar and several other complaints made at the hospital. The absence of a system to classify or detect diabetes that can help detect this disease with the field of Artificial Intelligence or Machine Learning. This study aims to apply the Neural Network algorithm method to classify diabetes and apply Adaboost to improve its accuracy, and selecting the best combination of factors to determine the class of Diabetes Melitus. Neural Network method is used because it is good enough to classify. By working using the input layer, hidden layer and output layer. Neural Network and Adaboost methods were made using the Python 3 programming language. The dataset used was 1831 datasets taken from the Solok District Health Center in West Sumatra. The results of this study are 98.09% accuracy with Neural Network and increased to 98.36% using Adaboost and the use of 5 factors which is the best combination the produces a high level.

Keywords: *Neural Network, Machine Learning of Duabetes Mellitus Disease, Adaboost Classifier*