ABSTRACT

Indonesia is a country that is prone to earthquakes. This phenomenon has existed since Indonesian territory was crossed by two tectonic plates. In addition, Indonesia is sandwiched by two large oceans, the Pacific Ocean and India. Therefore the tsunami posed a serious threat to the coastal areas of the Indonesian archipelago as well. Currently Indonesia actually already has a sea wave early detection system. The system is called a buoy made by NOAA (National Oceanic and Atmospheric Administration). The device can detect wave heights and can convey information when a tsunami will occur and work in real-time. Unfortunately, these tools cost a very expensive price and the maintenance is quite complicated and the maintenance costs are relatively expensive. Based on these problems, we need a system that is able to handle the problem. The system is designed using the Decision Tree C4.5 Algorithm to provide predictions for tourists, fishermen, and the surrounding community based on parameters connected to the Internet of Things. From the results of tests that have been carried out, C4.5 Algorithm has a performance on each data partition with an accuracy of 98% to 100%.

Keyword: *Sea wave, Decision Tree, IoT, Algorithm C4.5, Internet of Things, web*