

ABSTRACT

Indonesia's landscape is prone to earthquakes because Indonesia is at a meeting point between three Earth plates that cause the plates to shift, break or sticking upwards and caused an earthquake, it inflicts panic and the impact of the loss is massive. To minimize the impact of the loss caused by an earthquake, we need a device that can detect an earthquake.

Based on this condition, it is necessary to design an earthquake device using Omron D7S as a vibration sensor. The result that have been got from the Omron D7S sensor then classified by Artificial Neural Network and the information of Richter Scale will show and giving the information to evacuate themselves to a safe place on the running text. Earthquake detection device utilizing Omron D7S can successfully detect the vibration of an earthquake and for a warning text can be shown on running text.

As for the result of this final project the average magnitude value is 2.0 to 5.1 Skala Richter. The result for light intensity on running text is 639 – 1004 Lux in distance 10 meters. In distance 51 meters, the light intensity on running text is 400 Lux.

Keywords: earthquake, Omron D7S, running text, Artificial Neural Network