ABSTRACT

Landslide disaster is one of the many natural disasters that often occur in Indonesia. This disaster is one of the disasters that are difficult to avoid so it often causes fatalities and large material losses. Currently mitigation systems for landslide disasters are still less effective in their use. Early warning system that can give information of the landslide through smartphone could be the best solution for this digitalition era, because society in general has their own smartphone and connected through internet. Early warning system also demanded to be able to make decision of the landslide status.Fuzzy logic is one of many artificial intelligence used as decision support system which is basically similar to human logic.

Therefore, it is necessary to build an early warning system against landslides based on the Internet of Things that can determine the status of landslides that occur based on soil slope using MPU6050 accelerometer sensor and humidity data using Soil Moisture sensor. This system can later monitor the slope and humidity data of the soil and can transmit landslide status on smartphone applications connected to the internet.

The result of this study is an Internet of Things-based landslide early heating system that can transmit landslide and soil humidity data and transmit landslide status in the form of push notifications on smartphones using the Blynk application.

Keyword: Landslide, Internet of Things, Fuzzy Logic, Blynk App