

## **ABSTRACT**

*Landslide disasters always cause losses that include material losses, psychological impacts, and even loss of life. So that these losses can be minimized, it is important to have an early warning system for landslides and an information system that can provide opportunities for self-evacuation so that losses can be reduced. Therefore, it is necessary to create early detection tools. The causes of landslides are land movement, soil moisture which affects soil conditions and vibrations with magnitude units. To measure these parameters, a system is used that is connected to various sensors. The sensors used include the SW420 vibration sensor to measure the level of vibration in the ground, the Soil Moisture sensor which is used to measure soil moisture and the SIM 800l which is used as a medium for sending messages if a landslide occurs. The SW420 vibration sensor gets an average of safe and alert at a slope of 0 to 15° or a frequency of less than 50 Hz and an average of alert and danger at an inclination of 45° or a frequency of more than 25 Hz. The Soil Moisture sensor has an average error value of 3% on a slope of 0 to 30° and has an average error value of 2% on a slope of 45°.*

**Keywords:** *Landslide, SIM 800L, Soil Moisture Sensor, SW 420 Vibration Sensor*