

## ***SENSOR DESIGN FOR TSUNAMI EARLY WARNING SYSTEM***

*Natural disasters can cost many lives and one of them is the Tsunami disaster. Therefore a tsunami early warning system was created. Tsunami Early Warning System can be seen from the symptoms at the time of the tsunami such as the earthquake in the deep sea, the eruption of volcanoes in the sea, as well as the sudden reflux of sea water.*

*In this final project will focus on the parameters of tsunami phenomenon that is sea wave condition, and also change of atmospheric pressure influenced by sea water level. Therefore designed tsunami detector using microcontroller, IMU sensors, atmospheric pressure sensors, and GPS to determine the location of the tsunami detection buoy located.*

*At the end of this final project will be ended with a simulation of the tsunami with accuracy for IMU sensor of 98,92% and the atmospheric pressure sensor of 76,54%. Then the IMU sensor covariance value is 0,62% and the covariance value of atmospheric sensor is 5,22%. From this data, this sensor is considered to be able to detect tsunamis quite well*

***Keywords: Tsunami, Microcontroller, IMU, Atmospheric Pressure, GPS***