## **ABSTRACT**

Indonesia is an island nation that has 17,499 islands with a total area of Indonesia is about 7.81 million km² and only about 2.01 km² in the form of land and the rest are about 3.1 million km² of territorial sea and 2.7 million km² of exclusive economic zones. The ocean is widely used by people for marine activities, but in the region of the ocean there are often high waves. High waves are a very important factor for marine activities. If there are often high waves, it can cause disruption of marine activities that impact the community.

For that, knowing the condition of the wave is very important. By knowing the condition of the waves, people can plan marine activities better to anticipate high waves or to avoid them.

From the problem, this system was made to be able to monitor the condition of ocean waves in realtime. This system uses Support Vector Machine algorithm in determining the classification of seawater wave conditions. The result of the classification has an accuracy of 55%.

**Keywords**: Mobile Application, Sea waves, Support Vector Machine