

## **ABSTRACT**

*With the traditional system used on fishing boats at the moment, they can not easily determine its position. In case of problems such as accidents, damage boat engines, fishing sick and needed help, the help they receive is very limited. The problem is how fishermen can know the limits of other countries simply by giving the coordinates of a warning limit other countries, and if there is a problem officer can determine the position of the fishing port quickly using the Save Our Soul (SOS).*

*On Fishing Boat Monitoring System will be designed using the Global Positioning System (GPS) as positioning, Radio Frequency Transmitter as Radio Frequency transmitter and Receiver as receiver. To estimate the position of the fishing boats used Kalman Filter. At this time Final Kalman Filter chosen because the data obtained can change or stay and have interference so used Kalman Filter. Therefore, the results obtained approximate position of the fishing boat with a better accuracy rate.*

*The results of the monitoring system design on a fishing boat requires the shortest distance from the fishing boat to limit warnings. In the simulation results obtained error average - average closest distance sejauh 13.45 m without Kalman Filter and 6.4 m using a Kalman filter calculation error in which they approach the actual position of the fishing boat. By using the Kalman Filter method can reduce the noise from the GPS sensor data accuracy by 95%.*

**Keywords: Global Positioning System (GPS), Radio Frequency Transmitter & Receiver, Kalman Filter, Save Our Soul (SOS)**