

"KONSEP DESAIN *UNMANNED SURFACE VEHICLE* (USV) UNTUK PATROLI DI WILAYAH PERAIRAN ROKAN HILIR"

Nama : Sigit Andriansyah
NIM : 1304191022
Dosen Pembimbing : Nurhasanah, ST., MT

Abstract

Cases of illegal fishing and smuggling in Rokan Hilir Regency often occur due to lax supervision and patrol boats that are old and not optimal. So it requires a patrol boat that can run in all conditions and can carry out surveillance every day. In this technological era, human tasks are helped by the existence of technology in the form of robots, one of which is the Unmanned Surface Vehicle (USV). Because USV can operate more optimally and USV ships can reduce operational costs and so on. Before carrying out a USV design, it is important to carry out a design concept first, so a concept will lead the way to provide direction for USV design decisions, by determining the Operational Requirements, the functions and duties are obtained as a patrol boat with a speed of 25 knots operating in fire and defense divisions, Has Lpp size = 4.5 m B = 2.20 m H = 0.65 m and T = 0.5 m and obtained USV components used Main engine, Propeller, Rudder, High Voltage Battery, Rudder, 12V Battery, Onshore Charge, Microcontroller , GPS, Laptop, Regulator, Router, Compass, Camera and get hull type, materials and propulsion to be used on USV ships get hull type used V, material used aluminum, and propulsion used electric motors..

Keyword: Design Concept, Decision Tree and USV