DESIGN OF GUIDANCE SYSTEM IN ORDER TO DEVELOP AUTOPilot FOR KRI KELAS SIGMA'S SHIP

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Abstract
Guidance systems is the important component in developing autopilot because this system used to vessel control with a certain track without human intervention thus minimize human resources in driving the ship. Guidance systems is a continuous system to obtain the latest update as setpoint. The Sensors that are needed in guidance system are compas, GPS, and gyrocompas. External data in the form of wave height. That information is then passed on to control system. The simulation have done, inconclusive that design guidance system is applied at Malaka Strait good until sea state 6 and high waves 6 meters produce smallest error 3.6 metres, the biggest error 110.1 meters and average error 41.6 meters.

Keywords: guidance system, error trajectory, high wave, sea state.