DESIGN BUILD OF OCEAN CURRENTS MEASUREMENT SYSTEM ON BUOY WEATHER TO BUILD MARITIME WEATHER PREDICTOR

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Abstract

One of the factors that affect weather conditions in the region's waters are the ocean currents. This is because ocean currents in a territorial waters determine high low rainfall in the area. The higher the potential occurrence of rainfall so rain will increasingly high. In addition to bringing in an area of rainfall, ocean currents could affect existing water traffic. Because if the flow is going to have high speed ships or other means of transport will be hard to control. At this time the research has been carried out the design of measurement system of ocean currents by using microcontroller ATmega 8535 as signal processing. To be able to respond to the movement of the water flow in the present study uses the blades on the ends of the form of Bowl. The aim is to allow the flow of water can be caught so that it can rotate the shaft. To respond to rounds of shaft then used optocoupler sensors. From the results obtained by the magnitude of the error test tool average is 0.35, value standard deviation of 0.289 and measurement uncertainty (UA) for 0.129. From the test results can be inferred that the tool can function properly.

Keyword: Measurement system, research, standard deviation, uncertainty