

SHIP LEAK MONITORING SYSTEM USING ULTRASONIC BASED SENSORS MICROCONTROLLER

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ABSTRACT

A ship leak monitoring system using a microcontroller-based ultrasonic sensor is a functioning system to provide information to thr crew if there is a problem with the cargo hold tank that is leaking or not leaking. So that the ultrasonic sensor detects the presence of water entering the cargo hold and will give a signal to arduino nano as a microcontroller. The microcontroller will give a signal to the indicator light by indicating/lighting the green, blue, and red lights. Usually, the LCD screen will display the result to read the water level at a distance of 20-16 cm stating the status : safe, a distance 15-6 cm states the status : caution, and at a distance of 5-1 cm states the status : dangerous. When declaring the status : be careful the buzzer will sound its alarm slowly and if stating status : danger buzzer will sound so loud and fast. From this statement this tool was made from the start of the programming, namely the arduino IDE application which does the coding and data input to arduino nano. The power supplay of this sistem uses a power bank as a conductor of electrical energy.

Keywords: Monitoring System. Ultrasonic Sensor And Arduino Nano.