

ABSTRACT

Often there are deliberate misconducts while fueling the generator tank. One example is the addition of the volume of fuel that is not in accordance with the procedures of the company by parties who are not responsible (agency company). This is caused by the lack of security when performing the refueling, so the results can be manipulated. To suppress these errors, a monitoring system based on height of liquid in the tank needs to be implemented in order to reduce errors and increase the level of security.

The obtained solution is to make the measurement system that calculates the tank liquid level using an ultrasonic sensor with the working principles of sound wave reflection. Once the sensor obtains the value of liquid level, the value will then be transferred to arduino that will process the data to calculate the volume of liquid in the tank. Height and volume of the liquid will be sent back by the arduino to the web as a monitoring display, the data is sent via ethernet shield that's connected to the web monitoring. And the web will display liquid level and the overall data stored in it. The system will transmit data every 1 hour.

Through various tests and scenarios, this system can suppress errors and increase the accuracy through the height of liquid measured up to 99.483%

Keywords: Monitoring the tank, Ultrasonic Sensors, Fuel, Genset