

## **ABSTRACT**

*Water tanks are water reservoirs that are widely used as a reserve for clean water in case of water disturbances/scarcity. Usually the water reservoir is above the house so it is difficult to monitor the water level. For this reason, it is necessary to have a monitoring system for measuring water levels in water reservoirs to make it easier to monitor the water level. Most monitoring systems for measuring water levels in water reservoirs use ultrasonic sensors, one of the ultrasonic sensors that are already waterproof is the ultrasonic sensor JSN-SR04T. The platform used in this study is Antares as a place to store measurement data and as a monitoring system for this research. The purpose of this study is to test the accuracy of sensor measurements and the effect of linear regression implementation. One way to increase the accuracy of this sensor reading is to use the Linear Regression method. The results of the sensor measurement test state that the percentage of the average error value generated by the JSN-SR04T ultrasonic sensor can be reduced by 0.006% after the Linear Regression method is implemented. Before implementing Linear Regression the average error was 5.356% while after Linear Regression was implemented the average error was 5.350%. This shows that Linear Regression is able to reduce the error value and increase the accuracy value of the sensor.*

**Keywords** : *Water Tanks, JSN-SR04T Ultrasonic Sensor, linear regression, Arduino*