ABSTRACT

The rapid development of technology and its application in all fields can be a solution to solve problems faced by humans, one of which is problems in agriculture, especially in the selection of water for plants, so that our plants get good water, then designed a water quality tool using sensors pH, TDS, Temperature, and Turbidity based on Microcontroller, so that we can analyze the quality of the water that will be used for plants. This is important to develop, considering water quality is an important factor in the development and productivity of a plant.

With this integrated IoT sensor system can make it easier to measure water quality more effectively, because it can be done at a distance, and without cable intermediaries. Another reason for using a water quality measuring instrument is that it can distinguish good water quality from those that are not for plants with a sensor accuracy of ph 99.4% with an error of 0.6%, temperature sensor accuracy of 99.12% with an error of 0.88%, TDS sensor accuracy of 96.9% with an error of 3.1% and turbidity sensor accuracy of 99.3% with an error of 0 , 7%.

Keywords: IoT, water quality, plant development and productivity, integrated sensor system.