ABSTRACT

Water is a very important requirement for the live of living creatures, especially for humans. Because water is an important need to meet human needs, the water used must be of good quality or clean. Water that meets water health requirements has a pH with a maximum level of 6,5 – 8,5 and TDS (total dissolved solids) is 1500mg/L. Clean water is water that meets daily needs whose quality meets health requirements and can be drunk when it has been cooked.

In order to maintain good water quality, it is necessary to monitor and manage the water quality. Water monitoring and management is carried out by assessing the pH value contained in the water and the TDS (total dissolved solids) level. Water quality monitoring is carried out by measuring the pH and TDS values in water. The measurement results will be processed and classified and sent to a cloud server that can be accessed by users. From these data, water will also be treated by providing a pH neutralizing liquid and filtering water if the pH and TDS do not meet the standards.

In this final project, the pH sensor accuracy value was 99.54%, TDS sensor accuracy was 98.07%, temperature sensor accuracy was 99.62%. The tool designed is successful in neutralizing pH when the pH value rises or falls using Fuzzy Logic by providing pH up and pH down fluids and filters can reduce TDS but it takes a long time. The Blynk application can monitor pH, temperature and TDS values in real time.

Key Words: *ph, TDS, Fuzzy logic, Internet of Things, water.*