ABSTRACT

The Regional Drinking Water Company (PDAM) is one of the sources of clean water supply for the needs of the community so far. Water is expected to overcome problems that arise from people's daily needs such as bathing, washing clothes, cooking water, and other activities. The purpose of this study is to determine the design of the PDAM water meter Monitoring system using the Internet of Things (IOT) based NODEMCU ESP8266. This study uses literature study, consultation and discussion, testing, analysis of results. From the results of the study, it can be concluded that the manual testing and Monitoring of the IoT-based PDAM water meter with an input of 7000mL water volume in the container obtained the results of measuring the water volume (output) in the measuring cup and which is read on the smartphone application and website database with the total output volume of water of 7349mL and that the error is 1.7%, the error tolerance limit is 5% of the device. The tool can run properly. This tool is equipped with a 20X4 LCD as well as a website and smartphone application that functions to display the location of the leak on the GT1 or GT2 and the amount of water from the input in milliliters (mL) per day, week and month, the output from the water flow sensor.

Keywords: PDAM customers, NodeMCU ESP8266, Water Flow Sensor, RTC DS3231, smartphone