ABSTRACT

Leakage is one of the factors that usually happen in Indonesian regional water utility company (PDAM) and take a long time to detect the leakage because the measurement is done by officer.

This final project will be design a system for monitoring water discharge (mL/s). The system get the input from Leakage Detector System and those information will be sent to the cloud server. Data transmission system is using sim900A module that is integrated with cloud server thingspeak and android application. The monitoring system is using memory card data logger as back up.

This test is carried out in the morning, afternoon (13:51:54 - 14:06:44), evening, and at night a day for 15 minutes for data transmission to be done per 15 seconds, meanwhile for the 20 minutes test, data transmission was carried out every 2 minutes during the day. The output of this final project is that the system can send data to the cloud server in the morning, afternoon, evening, and night with the loss of packages in the delivery process in the morning, evening, and night by 5%, while for the afternoon it is 13.3%. For deliveries during the day, every 2 minutes, the package loses 10%. In addition, monitoring can also be done via an android application. If you experience a leak greater than 200 mL / s, you will receive a leak notification.

***Keywords**: monitoring, Internet of Things, data logger, PDAM, sim900A module*