ABSTRACT

Green campus is a sustainable development program to improve the level of a campus by focusing on campus greening, campus ecological construction, resource recycling, environmental education, and others. Telkom University is one of the private universities implementing the "Green Campus "commitment, one of these locations is Situ Tekno. Situ Tekno is an artificial lake that has the function of storing rainwater and irrigation.

Situ Tekno Lake has an important role in water sources at Telkom University. During the rainy season, the air surface at Situ Tekno, Telkom University exceeds the normal water level limit. One of the supports for the Green Campus program is to determine the water level at Telkom University's Situ Tekno. Therefore, in the final project the author created an Automatic Water Level Recorder system which provides information about the air surface height at Situ Tekno.

The results obtained from this research are the successful design of an AWLR-based monitoring system that can automatically measure the water level at Telkom University's Situ Tekno and transmit data in real-time to the monitoring system. By testing the percent error, the accuracy of ultrasonic sensor testing on AWLR 1 was 3.94%, on AWLR 2 it was 1.15% and on AWLR 3 it was 5.84%. It was found that the monitoring results for sending data were 9 seconds and 8 seconds and for sending data the delay to the GSM module was 4 seconds.

Keywords: Automatic Water Level Recorder (AWLR), monitoring system, Situ Tekno, Telkom University, Green Campus.