UGM Students Develop Technology to Monitor Real Time Water Level

Monday, 11 November 2019 WIB, By: Humas UGM

Students of Agricultural and Biosystem Engineering of Universitas Gadjah Mada have developed a system which is integrated with Cloud to monitor water level to modernise national irrigation.

The system is developed by Dwi Wiyantanu and Muamar Arif Khuluqi, supervised by Dr. Andri Prima Nugroho.

Dwi explained the system consists of ultrasonic sensor modules, micro-controller unit installed with mini data logger, and mini solar panel as energy sources to charge the batteries.

"The sensor will estimate the water level through distance measurement. Data will be sent to Cloud via the GSM networks," he explained on Monday (11/11).

The system named as SMART AWLR (Automatic Water Level Recorder) will do the job in real time.

This system won the second place award in the National Scientific Paper competition, *TEAR 2.0*, held by Telkom University, Bandung, from 31 October-3 November 2019.

It has positive strengths such as its compact form that is equipped with self-energy feature that enables installation in areas far from electricity resource. It has also online-offline modes that support continual observation despite unstable internet signals. If internet connection cuts off, the data will automatically be stored in the data logger. Once it is back on, the data will be sent to Cloud so as to minimise data loss.

He said that the water level data would be processed further, for example to estimate the flow rates in line with the location and characteristics of the flume. This can also be used for flood early warning system.

"Going forward, we will improve and test its performance and reliance on the field," he added.

Related News

- UGM Students Develop Flood Early Warning Applications
- UGM Students Develop Plant Monitoring Method
- Floods Early Warning System and Smart Robot for Forest Fire
- UGM Students Develop Fog Reaper Technology
- UGM Students Develop Automatic Irrigation System for Oil Palms