ABSTRACT

Typically, rice field condition is monitored manually. Farmers should monitor the condition directly in the rice fields to find out the current condition. However, manual monitoring has disadvantage such as inaccuracies of water level readings, requiring energy to drain water and require more time. Based on previous research, the application of remote monitoring system is equipped by GSM module, the system can send information of water level sensor to the user by sending an SMS. Therefore, to complete the irrigation automation syste, the monitoring system is implemented in the fields using application using visual studio based. This system is equipped by XBee Pro S2C as radio frequency communication module to receive data from automation systems in paddy fields. Based on the test, this system can translate all code of information from automation system including water level condition, water source availability, pump and battery status into visual information which is displayed on the application. Communication delay between monitoring system and automation system is about 5 to 10 seconds.

Keywords: Monitoring, Wireless, Application, and Alarm