

# LAND QUALITY MONITORING SYSTEM FOR AGRICULTURAL BASED ON THE INTERNET OF THINGS

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## **ABSTRACT**

*Nowadays, the digitalization era has replaced all activities and devices to be run throughout technology. An example of its implementation can be applied to the agricultural sector by periodically doing rice fields quality control. As an agrarian country with a broad and potential agricultural sector, science innovations based on technology are required to support and facilitate the agricultural sector. This research titled Agricultural Quality Control System aims to improve agriculture quality even better by serving real-time quality score data throughout interval chart as consideration objects in maintaining agriculture. The method used in this quality control system is the Internet of Thing technology implementation to control agricultural quality, so it is possible to obtain some parameters information that impacts rice fields quality remotely. This system designed using ESP8266 NodeMCU microcontroller, soil's humidity sensor, DHT22 sensor, pH meter censor, and DS18B20 sensor that integrated to internet networks to transfer information data of scoring value on its server and website. Comprehensive system testing has gained many different scores scaling that this system has successfully transfer agriculture quality information based on rice field's parameters and factor. People can access that information anytime and anywhere as long as we have a browser connected to internet networks through website.*

*Keywords: Internet of Things, Microcontroller, Agricultural Quality Control System, Website*