ABSTRACT

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" DESIGN OF A GREENHOUSE SYSTEM FOR CABBAGE PLANTS USING SMART FARMING BASED ON ARDUINO CLOUD"

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Keywords: Soil Moisture, DHT11, NodeMCU ESP8266, Smart Farming, Green House

(xiii + 52 + Appendix)

Monitoring soil temperature and moisture in chili plants with Arduino Cloud utilizes an online platform to collect data from soil temperature and moisture sensors. The overall success rate of the test from temperature in was 72% in ideal conditions, and 28% in hot conditions, followed by soil moisture 66% in ideal conditions, and 34% in dry conditions. These sensors are installed in the chili plants to measure the percentage of soil moisture and temperature, with the measurement results displayed in real-time via a web dashboard. The system utilizes the Arduino Cloud platform which supports various programming languages and provides features such as error testing, data retention, and real-time delivery. Thus, users can monitor and control the soil conditions on chili plants efficiently. The system can also be integrated with other irrigation and crop monitoring systems, providing a comprehensive solution for land monitoring.

Bibliography (2018 - 2022)