ABSTRACT

DECORATIVE RABBIT HEALTH MONITORING SYSTEM BASED ON THE INTERNET OF THINGS
(CASE STUDY: FATHER GUSRON'S RABBIT FARMING, SOUTH PURWOKERTO DISTRICT)

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This research discusses a monitoring system that applies the Internet of Things (IoT) in monitoring the health of ornamental rabbits on Mr Gusron's rabbit farm. The aim of the research is that researchers design and build an IoT-based monitoring system to be able to monitor the conditions of rabbit farms, especially regarding environmental cleanliness which can affect the health of rabbits. A tool for a monitoring system that uses three sensors, namely, the DHT11 sensor, the MQ-135 gas sensor, and the PIR sensor which is connected to the ESP32 NodeMCU as a microcontroller. The sensor data is then sent to the Thingspeak database. The results of monitoring will be displayed on a website that has been designed to be accessible to rabbit farm owners. The Monitoring System is equipped with a Whatsapp notification feature which can be used as a reminder if conditions in the rabbit cage environment exceed predetermined limits. With this monitoring system, it is hoped that environmental and health conditions on rabbit farms can be monitored. The method used in the system is a prototyping method, through the stages of communication, rapid planning, modeling, prototype building and testing. Evaluation and trials include implementing the system for one month on a rabbit farm, as well as testing using the black box method which can ensure the designed system works well. The results of this research found that the temperature in the rabbit cage ranged from 27.8 °C - 32.8 °C, humidity ranged from 64 RH - 71 RH, ammonia gas levels ranged from 5.6 ppm - 8.31 ppm, and movement could be measured through the numbers 1 (moving) and 0 (not moving).

Keywords: *IOT, Prototyping, Monitoring, rabbit farms, notification*