

DESIGN AND CONSTRUCTION OF A PROTOTYPE OF A CHICKEN MANURE DISPOSAL AND MONITORING AIR CONDITION SYSTEM BASED ON THE INTERNET OF THINGS

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ABSTRACT

The laying chicken business is a very promising business idea. However, chicken cultivation has many factors that must be considered, starting from feed nutrition, cage cleanliness, water flow, ammonia due to chicken droppings, noise and lighting intensity. Therefore, it is necessary to have a system for controlling chicken manure disposal and monitoring temperature and ppm ammonia. This research implements the Internet of Things (IoT) to simplify the process of monitoring and controlling laying hen cages. The system prototype was created using ESP32 as a controller, DHT11 and MQ135 sensors as a medium for reading temperature, humidity and ppm of ammonia in the cage. Control actuators in the form of fans, conveyors and lights. The IoT-based chicken waste control and monitoring system utilizes the Blynk platform. Through tests that have been carried out, the system that has been created has been able to work to monitor temperature, humidity and ppm of ammonia. The test results showed that the tool was able to work to turn on and off fan actuators, conveyors and lights and was able to regulate fan speed. Internet of things system testing has been able to run in automatic mode with a 100% success rate

Keywords: *Chicken coop, Internet of Things, control*