

ABSTRACT

This research discusses the development of an automated chicken feeding system specifically designed for Brahma ornamental chickens using Internet of Things (IoT) technology. The main objective is to improve the efficiency and quality of Brahma ornamental chickens through precise and controlled feeding. The system design combines various IoT-based sensors to monitor the chicken's feeding needs and automatically dispense food based on predefined parameters. The development process begins with the selection of suitable sensors, including ultrasonic sensors to measure the remaining food in the container, as well as temperature and humidity sensors for the environment. The information from these sensors is connected to a computing platform that analyzes data and makes decisions regarding food provision. Users have full control over the system through a web application or mobile device. In testing, the system proves capable of optimizing food provision according to the individual needs of the Brahma ornamental chickens. By applying IoT concepts in managing the feeding process, the system enhances the efficiency of food usage, conserves resources, and improves the quality of Brahma ornamental chickens. This research contributes significantly to modern poultry farming by implementing IoT concepts in the management of ornamental chickens. The findings have the potential to be implemented in various animal husbandry situations to enhance overall efficiency and quality. In this study, all the sensors and actuators exhibit different levels of accuracy. The servo motor demonstrates an accuracy rate of 83.3%. The ultrasonic sensor operates with an accuracy rate of 75%. Meanwhile, the DHT11 sensor yields two distinct results for temperature and humidity. The temperature measurement boasts an accuracy rate of 70%, whereas the humidity measurement maintains a slightly lower accuracy rate of 60%.

Keyword : Automated Chicken Feeding System, Brahma ornamental chicken, Computing Platform, Quality of Brahma Ornamental Chickens