

# Kontrol Dan Monitoring Gas Amonia (NH<sub>3</sub>) Pada Peternakan Ayam Boiler Berbasis IOT (Internet Of Things)

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## ABSTRACT

*Indonesia is the fourth most populous country in the world with a population of more than 257 million. With such a large population, Indonesia needs to improve food security so that everyone has access to sufficient food for a healthy life at any time. It has been regulated in the Food Bill No.7 of 1996 concerning food security. One of the food commodities that continues to be developed or cultivated is breeder chickens. The breeder chickens are a type of food that is much favoured and consumed by the community. Not only the lower class people, the middle and upper-class people also like to consume it. Therefore, many people take advantage of this opportunity by cultivating and selling chickens. Cleaning the chicken coop's temperature that is not regularly will be a problem for farmers if NH<sub>3</sub> gas/anomia cannot be controlled and monitored. A controller and monitoring device for NH<sub>3</sub> gas is needed on iot-based chicken farms that can also be monitored remotely using the concept of internet of things (IoT). "Control and Monitoring of Ammonia Gas (Nh<sub>3</sub>) in Boiler Chicken Farms Based on IoT (Internet Of Things)" is a concept that utilizes internet connectivity that is connected continuously. The devices used to support this system include the ESP8266 as a microcontroller and a link to the internet, ammonia gas sensors, ultrasonic sensors, and blowers. The data obtained by the sensor will be uploaded to the internet and can be accessed via a Blynk application. The test results show that the system has been able to work by providing feed automatically and providing information on the concentration of ammonia gas in the cage. Data on feeding, ammonia gas concentration in cages, and availability of feed and water have been uploaded to the internet and accessed via the Blynk application.*

**Keywords:** *Broiler chicken, ESP8266, Blynk*