ABSTRACT

Broiler chicken farming is a profitable business on farms with a relatively short growth factor, which is one of the reasons for breeders to choose broiler chickens. With the increase in temperature which is hot enough to be precise in lowland areas, temperature and humidity are one of the factors that inhibit the growth of broiler chickens. From these problems, a temperature control and humidity monitoring system was created in a broiler coop using DHT11 as a sensor to read the temperature and humidity in the room, Arduino Uno as a microcontroller, SIM 800L module as a data transmission medium and the thingspeak platform to visualize data. Data from sensors is sent to the thingspeak platform to be displayed digitally in order to make it easier for chicken farmers to monitor the temperature and humidity in the chicken coop. Arduino Uno will send a command signal to the drive relay to turn on the Exhaust fan and water pump for 30 seconds which can lower the temperature in the chicken coop if it is detected thethe temperature has increased beyond 290C. and the incandescent lamp will be interrupted to stabilize the room temperature if the temperature drops below 240C. Data sent via Sim 800 L to the thingspeak platform will be analyzed for its QoS value, for the QoS value that will be discussed by researchers, namely only the delay parameter. From the results of temperature control and humidity monitoring on the chicken coop prototype, the device can work properly. The accuracy results obtained from the first DHT11 sensor were 97.1% and for the second sensor were 97%. Testing the Qos delay using the THIPON standard, in the QoS test, an average delay of 42 seconds is obtained.

Keywords: *Arduino Uno,Broiler farm, Internet Of Things.*