ABSTRACT

The increasingly rapid development of technology means creating tool designs or network designs that are used to facilitate human performance so that work is done more easily and more efficiently. Unstable temperature and humidity in the cage have a big impact on the growth of chickens, if it is not monitored then the possibility of increasing the death rate of chickens will increase very drastically. Therefore, this research was carried out by designing a communication scheme and the process of influencing the data transmission speed of a device for chicken coops that can control temperature and humidity. This tool uses a DHT 11 temperature sensor to detect temperature and humidity with a temperature range of 28 to 30 degrees Celsius and an average humidity of 93% which is positioned in the chicken coop and uses ESP8266 as a WiFi module for device communication. By using 2 communication schemes on the tool used, namely a point to point communication scheme and a multipoint communication scheme with low delay numbers, it can be very helpful in monitoring in real time. It has low delay values for data transmission speed by getting delay values from the point to point communication scheme of 0.098854 ms and 0.011 ms and delay values from the multipoint communication scheme of 0.10726 ms and 0.010 ms.

Keyword : Broiler chicken, ESP8266, Chicken coop, communication schemes