

## ABSTRACT

The increasing demand for love birds for Love Bird makes farmers demanded to be able to compensate by increasing poultry production. If using natural methods, one bird of a bird that loves birds can only incubate a maximum of 8 eggs with an incubation period of approximately 21 days. This method is less effective because only a few birds love birds produced.

The ideal temperature and humidity needed for love birds during the incubation process ranges from 36°C-37°C, while for humidity in the range between 65%-70%. The purpose of this study is to use temperature and humidity for hatching birds of the type of love so that birds can increase the percentage of hatching eggs. The system consists of a DHT 11 sensor which functions to retrieve data consisting of temperature and humidity in birds, and uses a wifi module as a microcontroller enhancement to be able to connect directly to wifi and create TCP / IP.

DHT11 A and DHT11 B, in the DHT11 A test placed in the room with a temperature value of 23<sup>0</sup>C-36<sup>0</sup>C and humidity in the range of 45% -87%, then in DHT11 B which is placed outdoors with a temperature value of 24<sup>0</sup>C -33<sup>0</sup>C and humidity in the range of 50% -88%, the results of this implementation also resulted in delays in sending from the Server to the database with an average delay of 20.8. Then in turn the value of the manual sensor with the value of the DHT11 value obtained in the DHT11 A Sensor is humidity in the range of 55% -89%, and the temperature variation of 22<sup>0</sup>C -29<sup>0</sup>C. on DHT11B Humidity at the level of 58% -87%, and temperature 22<sup>0</sup>C -28<sup>0</sup>C. And the publication value is 21<sup>0</sup>C -28<sup>0</sup>C, humidity is 60% -85%.

***Keywords: Implementation of temperature and humidity monitoring systems, DHT11 sensors, Wemos***