ABSTRACT

Oyster mushroom which is also called Pleurotus ostreatus is one of the various types of mushrooms that can be consumed and contains protein, vitamins and minerals needed by the body. In oyster mushroom cultivation, temperature and humidity factors greatly affect growth and have an impact on crop yields. A good temperature for oyster mushrooms is in the range of 22-28℃ and humidity around 80-90%. With these factors, there are variations in the building materials for the oyster mushroom kumbung which are made of adobe, plastic, and bamboo. The purpose of these three variations is to maintain temperature and humidity stability according to certain regional conditions. To make this easier, this study designed a tool that can be used as a monitoring and controlling the temperature and humidity of oyster mushrooms using a DHT22 sensor and applying the concept of the Internet of things (IOT) in sending data via Google Spreadsheet. Based on testing the DHT22 temperature sensor, there is an average error of 5.42% and an average accuracy rate of 94.58%. Based on testing the DHT22 humidity sensor, there is an average error of 4.40% and an average accuracy rate of 95.60%.

***Keywords**: Oyster Mushroom, Temperature, Humidity, DHT22 Sensor, IOT*