

# **Automatic Oyster Mushroom Temperature and Humidity Design Using Fuzzy Sugeno**

## **Method Based on Microcontroller**

**Rizky Akbar Hidayatullah**

**Informatics Engineering Study Program**

**Jurusan Teknologi Informasi**

Informatics Engineering Study Program

Jurusan Teknologi Informasi

### ***ABSTRACT***

Oyster mushrooms can generally grow naturally under broadleaf trees that have an ambient temperature of around 22-28 °C and humidity of 70 - 90%. In this study, a prototype was designed to control the temperature and humidity in the barn with Sugeno fuzzy control. This tool serves to regulate and control the temperature and humidity in oyster mushroom barns so that the temperature and humidity remain optimal so that it can facilitate the work of oyster mushroom farmers. From the results of the tests that have been carried out, the results of mushroom barns with fuzzy control can control temperature and humidity optimally. In traditional oyster mushroom cultivation to maintain temperature and humidity is usually done by spraying water using a hand sprayer in the morning and evening. It is less effective in saving farmers' time and energy. This research aims to design a tool that functions to regulate temperature and humidity automatically so that it can facilitate the work of farmers to save time and energy.

Keywords: Oyster Mushroom, Fuzzy Sugeno, Temperature, Humidity, Arduino Uno