

## ***ABSTRACT***

*Climate change is a big challenge for the world today. Climate change certainly greatly affects the agricultural sector because it is very dependent on weather and rainfall. Indonesia itself has always been rich in agricultural products. One of them is strawberries with a production of 8,350 tons in 2020. Strawberries can experience a production decline of up to 70% in the rainy season. This is due to extreme weather so that strawberries easily rot if the rainfall is too high, and vice versa many strawberries die in the prolonged dry season. Therefore, to help strawberry farming by manipulating the climate in the greenhouse by using a watering system and also an automatic humidity regulator using the Internet of Things sourced from primary data from literature studies and observations. The software development used is the prototyping method. This system was developed using fuzzy logic implemented with the Matlab application, equipped with an ESP32 microcontroller with a soil moisture sensor and a DHT22 sensor to read air temperature and humidity conditions to maintain ideal conditions for strawberry farming, namely in the temperature range of 14°C-24°C, humidity 85%-95%.*

***Keywords: Automatic watering system, automatic humidity control system, Internet of Things, Strawberries***