

**Sistem *Monitoring* Pertumbuhan Tanaman *Microgreen* Bayam  
Menggunakan Metode *Fuzzy* Berbasis *Internet of Things* (*Spinach Microgreen  
Plant Growth Monitoring System Using Internet of Things Based Fuzzy Method*)**

**Muhammad Wildan Aulia Kahfi  
Study Program of Informatics Engineering  
Majoring of Information Technology  
Program Studi Teknik Informatika  
Jurusan Teknologi Informasi**

***ABSTRACT***

*The spinach microgreen plant monitoring system is a system based on the Internet of Things designed to monitor the growth of spinach microgreen plants based on fuzzy logic automatically. Variable values obtained from the sensor readings of room temperature and humidity of the growing media. Spinach microgreen plants can grow optimally at room temperature 23-29 degrees Celsius with a humidity level of 50%-70% growing media. Room temperature and humidity of the growing media that are less or more than the optimal limit can cause the growth of microgreen plants to be less than optimal. To overcome this, an Internet of Things-based monitoring system has been created that can provide corrections for each variable that is outside the range by determining the giving of commands to the Arduino microcontroller to the actuator. Actuators that turn the water pump on and off plus actuators that turn on and off fans and lights. From the test results, the monitoring system based on the Internet of Things succeeded in sending data to the website that had been implemented based on fuzzy logic automatically.*

***Key words:*** *Internet of Things, Fuzzy, Microgreen, Spinach*