JEEE-U (Journal of Electrical and Electronic Engineering-UMSIDA)



Vol 4 No 2 (2020): October, 115-127 Artificial Intelligence

## Design of Automatic Pesticide Sprayers on Internet-Based Chilli Plants

Rancang Bangun Alat Penyemprot Pestisida Otomatis Pada Tanaman Cabai Berbasis (Internet of Things)

M. Azka Mujaddidin Miftachul Ulum Diana Rahmawati Koko Joni Universitas Trunojoyo Madura Trunojoyo University Madura Trunojoyo University Madura Trunojoyo University Madura

Chili (Capsicum annum L.) is one of the priority needs for consumption by the Indonesian people in general. With these factors, the soaring price of chilies can not be avoided anymore, one of the factors is the attack of pests and diseases of chili plants. Therefore it is necessary to take appropriate and quick action so that pests and diseases attack on chili plants do not spread widely. However, manual spraying has a weakness that is the time needed by farmers for longer, physical fatigue and exposure to pesticides can endanger the health of farmers in the short and long term. Therefore spraying pesticides electronically can be a solution to this problem. The testing process can be seen from the top of the leaves affected by the disease, then the results of this study can design a system for automatic spraying of pesticides based on the type of disease that attacks by using the Internet of Things and the wifi module ESP8266. The overall results of the trial can be concluded that in testing 10 trials determine the automatic spraying of pesticides 100% success indicator. And Quality of Service for sending value during the trial with index value 3 (satisfactory).

## References

- 1. Badan Pusat Statistik, Jawa Tengah in figure, (Semarang : BPS Jateng)
- 2. Sunita Almastier, Prinsip Dasar Ilmu Gizi, (Jakarta : Gramedia Pustaka Umum), hlm. 187.
- 3. Faudin, Agung. 2018. Pengenalan tentang WEMOS D1 MINI. https://bocahkampus.com/caramenulis-daftar-pustaka
- 4. Zulkarnain. 2013. Budidaya Sayuran Tropis. Jakarta : Bumi Aksara.
- 5. "APLIKASI LOGIKA FUZZY METODE TSUKAMOTO," 2015. [Online]. Available: https://logikapagi.wordpress.com/2015/11/15/27/