

IMPLEMENTATION OF THE INTERNET OF THINGS FOR MOBILE BASED FLORICULTURAL PLANT MONITORING

MUHAMMAD URFAN ADJIE PRATAMA

Informatics Study Program, Faculty of Science & Technology

University of Technology Yogyakarta

Jl. Ringroad Utara, Jombor, Sleman, Yogyakarta

E-mail: hawaiiitamang@gmail.com

ABSTRACT

Monitoring in the field of floriculture is something that needs to be done to improve the quality of ornamental plants. The implementation of the Internet of Things in monitoring the condition of planting media is a solution for more efficient monitoring to optimize growth, care and productivity of the plants themselves. This research designs a mobile-based floriculture plant monitoring application which is expected to be able to observe the micro-environmental conditions of plants, measure soil moisture, temperature, air humidity and light received by plants to detect potential problems such as pest or disease attacks. It is hoped that the development of this application can support the floriculture industry in improving plant quality, production efficiency and environmental sustainability, making it an important part of modern, sustainable cultivation. This research will develop a mobile application using the Flutter framework with useful features designed to be flexible for monitoring, especially on Aglaonema plants. Not only Aglaonema, but also detecting other floriculture plants such as Chrysanthemum and other ornamental plants. This application has been tested using the Blackbox method and the test results show that this application runs well in monitoring temperature, soil humidity and air humidity directly on Aglaonema plants, sending data to the server, and displaying it on the application quickly and efficiently.

Keywords: Internet of Things, Monitoring, Android, Floriculture, Mobile