ABSTRACT

Broccoli cultivation in increasing production and quality has various measures to prevent wilting. Starting from the process of planting seeds, providing fertilizer, nutrition and sterilizing the seedling media or garden land. Farmers need to compensate by increasing production quality using mini greenhouses. Mini greenhouse serves to create more productive plants that can be well controlled.

This study aims to create an internet of things-based implementation system to generate data in real time. This system can monitor soil moisture, room temperature, and light intensity. so that activities can be carried out practically without having to go directly to the plantation. The results of the data will be stored in a database and perform data processing which can be monitored easily through the android application.

Based on the results of functionality testing, the features in this my broccoli application can run well. The results of testing the efficiency performance aspect in monitoring activities obtained an average use of 3% CPU resources and 25.28 MB of memory. The quality of network performance was tested with the ITU-T G.1010 standard for testing the delay in sending data packets between applications and firebase when carrying out activities on the application, obtained a good index with an average total delay value of 0.2366 seconds and an average throughput value of 5.6349 bps .

Keywords: *IOT, Mini Greenhouse, Broccoli, Android*