

## **Abstract**

In the world of modern agriculture, emerging technologies aim to make it easier for farmers to get the expected results. A system created in this study is an Android-based application that is able to control fertilizing watering, and administering pesticides. Decision making is automatically processed based on the input parameters of the sensor which are then sent via the MQTT protocol, and processed in the cloud, and sent to Android-based applications using the API (Application Programming Interface) method. So farmers know when the right time to water, fertilize, and give pesticides. The system to be built is expected to provide output in the form of real time controlling.

**Keywords:***Smart Farming, MQTT Protocol, Android Based Application, Application Programming Interface (API)*