

## ***ABSTRACT***

Indonesia is known as an agricultural country that has a lot of land in agriculture. Most farmers in Indonesia still adhere to the traditional method of their irrigation system. Technological advances and innovations in agriculture are needed so that they can support and increase agricultural yields in Indonesia.

Factors of temperature, humidity, light, are very important in order to maximizing plant growth. So then a modern irrigation system is needed. Where this system will make irrigation very efficient by reading soil moisture on farmers' land and the time setting that can be adjusted according to the type of plant so that it gets all its needs correctly.

This system is a simple IoT system with the ESP-32 as a microcontroller and various sensors in it which will later send data to the server and then be processed into data that can be used for plant growth monitoring.

**Keywords:** *Internet of Things, Irrigation System, Sensor, ESP-32*