

ABSTRACT

Rapidly developing technology has produced a variety of intelligent and sophisticated equipment that can change human life at this time. These developments can be applied in people's lives to help their activities. One of them is the application of the agricultural sector, therefore the design of long-distance monitoring of land based on *IoT (Internet of Things)* is made, in which the system reports the results of monitoring through the *telegram* instant messaging application.

In this study a monitoring system was made that can report measurement results to users with *telegram* instant messaging media by designing a monitoring module consisting of the *Wemos D1 Mini microcontroller* and integrated with *telegram* and cloud services *Antares.id* using *IoT* features.

The output obtained from this study is a product that can monitor and report the results of measuring soil data on agriculture to users anywhere and anytime through telegram instant messaging applications where all operating systems can run *telegrams*.

Keywords: Monitoring, Internet of Things, Telegram.