ABSTRACT

In today's digital era, many people use technology to solve their daily problems or activity. Agricultural technology is one of the technologies that always growing or developing in terms of creating ideal ways and conditions for a crop. It seems familiar to see people on the city or urban areas farming in their house, but because usually they work from morning until down , they can't control their plants properly.

The presence of Internet of Things (IoT) technology has become a major breakthrough for societal issues. IoT can simplify people in controlling and monitoring their crops from anywhere and anytime with remote. Website creation and plant growth with classification models will be a solution in order to produce plants with well maintained growth. The tool called greenbox which can contain several plants that we can monitor and control their growth. The data that will be displayed on the website is the data taken by the sensor on the greenbox device which is stored in the firebase database, then the user will carry out commands according to the database. Sensors are used to determine the value of plant growth parameters.

Based on the existence of sensors that are forwarded to the website and then processed to determine the parameters with classification threshold of plant needs to grow optimally, it will help workers in urban areas to control and monitor their plants from anywhere using the internet. The expectation of this research is that the output of the system built can be a solution to problems that exist in the community so that the prototypes that are built can be perfected and marketed to the public. Keywords: Greenbox, Internet of Things, Firebase