Abstract

In the dry season saving water is an important thing to do to increase plant growth. Irrigation system is one of the solutions for saving water but there are still many uses of the ancient irrigation system that was carried out in this modern era. In this study, the researcher proposes an automatic irrigation tool that implements the fuzzy logic method into the arduino uno microcontroller that has been integrated with nodeMCU, sensors and the internet. The results of this study indicate the fuzzy logic method can be implemented in an irrigation system which produces an irrigation system that can run on its own and can be monitored via a smartphone, saving water more efficiently than the ancient irrigation system by using soil moisture sensor and temperature sensor parameters. In this study produced an efficiency value of water use of 89%, efficiency in watering get 56%, this is compared with a manual watering system.

Keyword: irrigation, weather, *fuzzy* logic, sensor