ABSTRACT

Indonesia as the world's largest agricultural country certainly has great potential in agriculture. The growing number of population in Indonesia we need to produce more food than before. Agriculture in Indonesia has been running as it should, but with the increasing rate of population growth there needs to be a 'fresh breeze' for advancement in agriculture, especially in Indonesia. This is certainly not separated from the role of technology as a tool that can promote the welfare of Indonesia through the agricultural sector. Therefore, a system that can do watering on agriculture by using artificial intelligence.

In previous research, an automatic watering system has been developed by using fuzzy algorithm and weather forecast by using Wheater Service Provider (WSP), but the system is still fairly straightforward because it still uses time as a trigger when the plants will be watered. In this research made of watering system for plant using weather forecast and circumtances around the plant as parameters input. System can predict when plant will need water based on past condition of soil, forecast weather and circumtances around the plant.

In this is research made of agricultural system with the concept of automation, the system created have a 'Decision Making Algorithm'. The system can predict when the soil used as a planting medium will experience dry so it needs to watering by doing consideration of the parameters that have been set. In addition the system that has been created can work on outdoor and the accuracy reaches 97,36 %

Keywords: Automatic watering, Artificial Intelligence, Prediction, Trend data, System