Patent Search

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Abstract:

ABSTRACT OF THE INVENTION Drip irrigation is the most familiar and effective water management scheme in agricultural sector and helps the farmer in huge yield. Supplying high amount and low amount of water to the farm based on the two extreme weather conditions like summer and winter is the major concern for the farmers. Another critical situation arises when the water is not provided to the farm according to the present weather condition and also human effort availability should be high at all time. An IoT based smart controlling application can be adopted in the field to control the water flow remotely. The sensors are installed onto the field and its numbers depends on the total farm area coverage. These sensors are used to predict the current weather condition in the field and react accordingly to initiate the water flow automatically without any human intervention. The user will be installed with mobile application to monitor and control the water flow in the field. The farmer able to monitor the certain factors like temperature, humidity, water requirement in the field with the help of using this application from their remote location itself. As an added flavor to the existing system, it estimates the final total yield as per the current plant growth. By implementing the IoT enabled water management sensors in the field, the farmers are able to control and monitor the farm's water flow and requirement based on the current weather condition with a minimal human effort.

Complete Specification

Claims:1. An IoT based Automated Drip irrigation system by predicting weather condition and water requirement in the field which enables the farmer to predict the dynamic weather condition so that he/she able to monitor and control the water flow in the field based on the water requirement comprises of
a. Estimating key factors affecting the crop growth like weather condition and water requirement based on the live temperature and humidity level in the agricultural field which enables the farmer to predict the dynamic climatic condition.
b. Process of monitoring and controlling water flow in the field by the farmer remotely from any location by using an IoT based Automated Drip irrigation system which predicts weather condition and water requirement in the field dynamically.
2. An IoT based Automated Drip irrigation system by predicting weather condition and water requirement in the field which enables the farmer to predict the dynamic weather condition so that he/she able to monitor and control the water flow in the field based on the water requirement according to claim 1 wherein IoT sensors are used to determine key factors such as temperature, humidity and water requirement for the crop dynamically.
3. An IoT based Automated Drip irrigation system by predicting weather condition and water requirement in the field which enables the farmer to predict the dynamic weather condition so that he/she able to monitor and control the water flow in the field based on the water requirement according to claim 1 wherein the system calculates weather condition and amount of water required for the plant according to the current situation of the climate.
4. An IoT based Automated Drip irrigation system by predicting weather condition and water requirement in the field which enables the farmer to predict the dynamic weather condition so that he/she able to monitor and control the water flow in the field based on the water requirement according to claim 1 wherein weather condition and water requirement in the field are communicated to centralize cloud based IoT server for further processing

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