

# E-Agriculture: Irrigation System Based on Weather Forecasting

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**Abstract:** *The Internet of Things (IoT) is an emerging area to assist agriculture-related applications. Applications such as smart gardening, water maintenance, other equipment automatic installations based on human actions, etc., can be implemented using IoT. In this project, a wireless sensor-based networking system is proposed to address the water pumping system to crop. The first problem is to automate the process of pumping the water to crops in a garden. Atmospheric Pressure, Temperature and humidity sensor are used to monitor the temperature to initiate the water pumping system, while soil moisture sensors are used for sensing the water level and initiating the process of pumping the water to the crops in the garden. The rain sensor is used to check the rain, if rain is coming it is going to stop all the motors. The data collection is applied to collect and store the information in the server for further processing. Proposed systems are deployed and demonstrated using open-source hardware such as microcontrollers, GSM etc.*

**Keywords:** E-Agriculture, Weather forecasting, Remote accessing of data.

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