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Automatic Smart Irrigation System Using IOT Technology

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Abstract. The project we have undertaken is “Automatic Smart Irrigation System Using Moisture Sensor”. This project is taken up as India is an agriculture oriented country and the rate at which water resources are depleting is a dangerous threat hence there is a need of smart and efficient way of irrigation. In this project we have implemented sensors which detect the humidity, temperature & soil moisture in the soil (agricultural field) and supply water to the field which has water requirement. The project is NodeMCU and Arduino based design which controls the water supply and the field to be irrigated. There are sensors present in each field which are not activated till water is present on the field. Once the field gets dry sensors sense the requirement of water in the field and send a message to the mobile. Then supply water to that particular field which has water requirement till the sensors is deactivated again. The development of the automated irrigation system based on sensors and wireless communication at experimental scale within rural areas is presented. The aim of the implementation was to demonstrate that the automatic irrigation can be used to reduce water use.

Keywords: Node MCU,Arduino,Moisture,Irrigation