SMART IRRIGATION

ABSTRACT

Smart Irrigation is a water irrigation system based on Internet of Things (IoT).The Internet of Things is a technology where in a mobile device can be used to monitor the function of a device. This system helps the farmers to irrigate the farmland in an efficient manner with automated irrigation system based on soil moisture. This project focuses primarily on reducing the wastage of water and minimizing the manual labour on field for irrigation.

The main objective of this system is to provide the automatic irrigation system thereby saving time, money and power of farmer. The existing farm-land irrigation techniques require manual intervention. With the automated technology of irrigation , human intervention can be reduced.The proposed system has been designed to overcome the unnecessary water flow into the agricultural lands. Temperature, soil moisture and humidity values are always being continuously monitored using sensors . And based on high value of sensor, water is pumped to the land. Otherwise, it stops pumping the water.

Some of the components used to implement this system is Arduino, soil moisture sensor, 5V relay, water pump with tubes and jumper wires.

Reference: M. R. H. Naeem, S. Gawhar, M. B. H. Adib, S. A. Sakib, A. Ahmed and N. A. Chisty, "An IoT Based Smart Irrigation System," *2021 2nd International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST)*, 2021, pp. 243-247, doi: 10.1109/ICREST51555.2021.9331092.

Project Guide

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