

ABSTRACT

Agriculture is the most important and worshipped occupation in India. Agriculture is livelihood for the most of the Indian who has rural background. Smart Irrigation helps to the development of agricultural country. In India, agriculture contributes about 16% of total GDP and 10% of total exports. Water plays an important role in Agriculture. Water is main resource for Agriculture. Irrigation is one method to supply water. In this irrigation process people are wasting water more by missing the timings. So too save water and time have a excellent method called Smart irrigation system using IoT. By the smart irrigation system are using various equipments like temperature sensor, humidity sensor, and soil moisture sensor. These sensors will find the various situations of the soil and based on soil moisture percent, land gets automatically irrigated. It means when field needs water then automatically motor will get ON and it will get OFF when it's get enough. These sensed parameters and motor status will be displayed on user devices.

In this work we use drip irrigation where the water was allowed to drip slowly to the roots of plant either from above the soil surface or buried into the surface so that the water can be placed directly into the root zone and minimize evaporation. It uses temperature sensor, soil humidity sensor to collect and monitor field information and also uses float switches to monitor ground water level through web page. When the field gets dry and ground water level falls down it will be notified through SMS. This provides a solution for the problems in developing a smart farming system. It uses node MCU, relay and water pump