

## **ABSTRACT:**

Our objective is to design a IoT Enabled Smart Farming Application which generates messages on different platforms to notify farmers. Our product will assist farmers by obtaining the realtime data from the farmland to take necessary steps during unfavourable conditions. Our proposed product uses NodeMCU, DHT11 Temperature and Humidity Sensor, Soil Moisture Sensor, Relay Coil, AC Motor Pump, Buzzer. Farmers can monitor all the sensor parameters by using a web / mobile application / dashboard even if the farmer is not near his field. Watering the crop is one of the important tasks for the farmers. They can make the decision whether to water the crop or postpone it by monitoring the sensor parameters and control the motor pumps from the mobile application itself.

## **GROUP IDEAS:**

- Temperature and Humidity sensor to detect the temperature and humidity of the soil
- Moisture sensor to detect moisture content of soil
- Trigger the motor to pump water if threshold of moisture sensor is low, through the website
- Using a buzzer to give an alarming sound to indicate danger
- Connecting NodeMCU and IBM Watson cloud to reflect real time values in dashboard that is the cloud
- Send SMS during emergency

## **PRIORITIES:**

- Interfacing all the sensors with the microcontroller
- Controlling the water pump
- Produce an alarming sound during emergency