

IOT Based Smart Crop Protection System For Agriculture

SOLUTION ARCHITECT

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WEATHER API'S



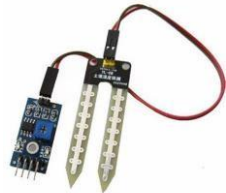
CAMERA



BUZZER



PIR SENSOR



SOIL MOISTURE
SENSOR



TEMP. AND HUMDITY
SENSOR



WATER PUMP



IOT

IBM CLOUD



IOT



USER INTERFACE

- ❖ The soil parameters such as temperature, humidity, moisture level are sensed by using sensors and the obtained value is stored in IBM cloudant.
- ❖ The Animals and Bird are sensed by PIR sensor. if it detected, the image will be captured and stored in the IBM Cloud object storage and the buzzer will alarmed.
- ❖ Raspberry Pi-3 is used as a processing unit which processes the data obtained from sensors and weather data from weather API.
- ❖ Depends upon the weather, temperature, humidity and moisture level condition, the Water pump motors will switched on and control by the user.
- ❖ Node-RED web UI is used to visualize the captured image as well as display the temperature, humidity, and soil moisture levels. Integrate the buttons in the UI to control the Motors.