IOT Based Smart Crop Protection System For Agriculture

SOLUTION ARCHITECT

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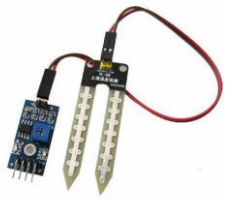
WEATHER API'S

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.