PROJECT DESIGN PHASE-1

SOLUTION ARCHITECTURE

TEAM ID: PNT2022TMID36188

Date	12 october 2022
Team ID	PNT2022TMID36188
Project Name	IOT based Smart Crop Protection For Agriculture
Maximum Marks	2 Marks

DESCRPITION:

- ❖ The device will detect the animals and birds using the Clarifai service.

- ❖ If any animal or bird is detected the image will be captured and stored in the IBM Cloud object storage.

- ❖ It also generates an alarm and avoid animals from destroying the crop.

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- ❖ The image URL will be stored in the IBM Cloudant DB service.

- ❖ The device will also monitor the soil moisture levels, temperature, and humidity values and send them to the IBM IoT Platform.

- ❖ The image will be retrieved from Object storage and displayed in the web application.

- ❖ A web application is developed to visualize the soil moisture, temperature, and humidity values.

- ❖ Users can also control the motors through web applications

Sensors

Power supply 5v

GSMGPRS module

Cell phone

Temperature and Humidity Sensor

Soil moisture

Analog signals

Centralized Arduino board

Data sent

Data transferred

IOT cloud services

IBM WATSON platform

Motor Controller

Relay Driver

Water pump

Water flow

Output

clarifai

Node-RED