Project Design Phase-I
Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID18367
Project Name	Project - **IoT Based Smart Crop Protection System for Agriculture**
Maximum Marks	4 Marks

Problem Statement:

An intelligent crop protection system helps the farmers in protecting the crop from the animals and birds which destroy the crop. This system also helps farmers to monitor the soil moisture levels in the field and also the temperature and humidity values near the field. The motors and sprinklers in the field can be controlled using the mobile application.

Solution Architecture:

- **Soil moisture sensor, Temperature & Humidity sensor, IR Sensor and Ultrasonic sensor are connected to the Arduino.**
- **When the animals are enter into the field, it will be detected by the IR Sensor and at the same time sound will generated by the speaker in order to divert the animals.**
- **If the birds are enter into the field, Buzzer will be generated and the water sprinkler start to sprinkle the water to make the birds away from the field.**
- **The data from all the sensors will be send to the node MCU.**
- **The the status of the crops and soil along with the DC motor status is seen on smartphone when connected to Wi-Fi.**