

## Project Design Phase-I Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID54441
Project Name	IoT based smart crop protection system for agriculture
Maximum Marks	4 Marks

### Solution Architecture:

- Sensors use to sense the physical parameters from the environment. Data from sensors and weather data from weather API are processed using a processing unit called Arduino uno.
- The raspberry pi is utilised in the purposed system along with a PIR sensor, web camera, ultrasonic sensor, LDR sensor, temperature sensor, humidity sensor, moisture sensor, buzzer, and monitor.
- Different sensors are used to measure the various soil factors (temperature, humidity, light intensity, pH level), and the data is then saved in the IBM cloud.
- With the help of sensors, if there was a change in the evaluation threshold, an alert would be sent to the farmer's mobile device or website. This would ensure that all plant life was protected from both animals and environmental conditions, preventing the farmer from suffering loss.

### Example - Solution Architecture Diagram:



