

Project Design Phase-I
Proposed Solution

Team ID	PNT2022TMID32791
Project Name	IoT Based Smart Crop Protection System for Agriculture

Proposed Solution :

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	In agriculture, there are three major problems one is unpredictable climate change and another one is the yields of the crops that have been damaged by improper irrigation and another one is a crops are destroyed by animals and birds. Our project will give the solution to overcome these problems with help of IOT.
2.	Idea / Solution description	It collects the data from different types of sensors and it sends the value to the main server. The data from the sensor is used as parameter to protect the crop from animals ,birds and over watering of crops. The irrigation can also be done manually through mobile application.
3.	Novelty / Uniqueness	A cost-effective crop protection system is developed by proposing a system architecture and relevant solutions, we successfully integrate different modules related to sensing systems, communication, and data analytics into a whole system that not only monitors the farm environment but also performs remote automation and user control.
4.	Social Impact / Customer Satisfaction	The risk of animal attack for the farmers is reduced by using hardware and software technology. The customer can be remote and still monitor the crops through IoT.
5.	Business Model (Revenue Model)	Crop protection system reduces the loss due to the destructions caused by the animals and birds. The model also reduces the losses of crop due to over watering.

6.	Scalability of the Solution	Crop protection systems reduce waste, improve productivity and enable management of a greater number of resources through remote sensing. In traditional farming methods, it was a mainstay for the farmer to be out in the field, constantly monitoring the land and condition of crops adjustment is made feasible by integrating information such as crops/weather and equipment to automatically alter temperature, humidity, animals movement, birds movement and so on. With the use of sensors, it has enabled farmers to reduce waste and increase output.
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