

Project Design Phase-I

Proposed Solution

Date	02 October 2022
Team ID	PNT2022TMID00408
Project Name	SmartFarmer - IoT Based Smart Farming Application
Maximum Marks	2 Marks

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Farmers have trouble managing large fields of crops, Each field has to get the right amount of water. Under-watering can cause crop stress and yield reduction and over-watering can cause the same but at the added expense of soil erosion, more usage of fertilizer, herbicide and pesticide runoff. Farmers also face the pressure of wildlife ruining their crops at unprecedented times which makes it hard to mitigate the damage caused by them.
2.	Idea / Solution description	A smart IoT based application that allows the farmer to remotely monitor every field under their care. This includes real-time monitoring of different parameters such as soil moisture, temperature and humidity with the usage of sensors, an intrusion detection system and a control system for water delivery and motor pumps.
3.	Novelty / Uniqueness	<ul style="list-style-type: none">● Extensive remote control of fields● Real-time field monitoring system● Intrusion detection system

4.	Social Impact / Customer Satisfaction	Farmers can save a lot of money if this system is implemented, it massively reduces sunk cost fallacy and provides more yield. It keeps the crops healthy and pays for itself in the long run. It reduces excessive waste of resources and helps mitigate damage early on
5.	Business Model (Revenue Model)	Pay-as-you-go (Subscription Based System)
6.	Scalability of the Solution	The scalability of this solution relies on how big the fields are, theoretically, it can be employed to a large number of fields without limitation.