Project Design Phase-I
Proposed Solution Template

Date	30 September 2022
Team ID	PNT2022TMID23571
Project Name	Project - Smart Farmer Application
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	● Irregular Irrigation ● Adverse weather conditions ● Insect infestations ● Lack of systematic technology ● Harvest issues and supply-chain inefficiencies
2.	Idea / Solution description	IoT-based agriculture system helps the farmer monitor different parameters of his fields like soil moisture, temperature, and humidity using sensors.
3.	Novelty / Uniqueness	● Level 5 automated crop health monitoring system ● Reduction of chemical application in crop production prevents soil degradation. ● Efficient use of water resources. ● Dissemination of modern farm practices to improve the quality, quantity and reduced cost of production.
4.	Social Impact / Customer Satisfaction	● Weather forecasts to minimise losses ● Predicting perfect cropping pattern thereby increasing the yield. ● Remote monitoring of crops, produce and livestock feeding ● Calculated use of fertilizers from the soil quality measured improves the yield without damaging the soil.
5.	Business Model (Revenue Model)	● **Target Sector(B2B)**: Business in the Agri/food industry that looks for raw materials and for whom the comprehensive system of traceability is very important

		● **Revenue Model:** With precision farming technology the yield volatilities become less general because of the more rational input usage. ● **Cost Model:** The investment in precision farming technology is higher than in the conventional types of equipment.
6.	Scalability of the Solution	● Automating crop care across India gives farmers a reliable full-stack farm management approach. ● The implementation of Scalable Service Oriented Agronomy Ontologywith Precision Farming makes the system easily scalable.