Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID43020
Project Name	Project – Smart Farmer
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	**Problem:** ➢ **Farmers are under pressure to produce more food AND use less energy and water in the process**.
2.	Idea / Solution description	**Idea:** ➢ "Smart farming" is an emerging concept that refers to **managing farms using technologies like IoT, robotics, drones and AI to increase the quantity and quality of products while optimizing the human labor required by production**. The Internet of Things (IoT) has provided ways to improve nearly every industry imaginable.
3.	Novelty / Uniqueness	**Uniqueness**: ➢ Remote Management. With farms being located in far-off areas and distant lands, farmers are seeking a better solution to their management issues. ... ➢ Real-Time Crop Monitoring. ... ➢ Crop Protection. ... ➢ Soil Testing & its Quality. ... ➢ Real-time Analysis of Soil Demand. ... ➢ Smart Greenhouses.
4.	Social Impact / Customer Satisfaction	**Customer Satisfaction :** Recognize the dimensions of customer service that are critical for improving customer satisfaction. According to Pennsylvania State University agricultural marketing educator John Berry, these dimensions are activities, such as order processing and billing; performance indicators, such as order-

		processing times; and a strategic focus on customer service throughout the company.
5.	Business Model (Revenue Model)	➢ Grow Microgreens ➢ Agricultural farm ➢ Sod farm ➢ Organic farm ➢ Herb farm
6.	Scalability of the Solution	**scalability :** ➢ Scalability in smart farming refers to **the adaptability of a system to increase the capacity**, for example, the number of technology devices such as sensors and actuators, while enabling timely analysis **Solution:** ➢ Smart Farming solutions provide an integrated IoT platform in agriculture that allows farmers to leverage sensors, smart gateways and monitoring systems to collect information, control various parameters on their farms and analyse real-time data in order to make informed decisions.