Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID46771
Project Name	Smart farmer-IoT enabled smart farming application
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)	The adoptions of access to high-speed internet, mobile devices, and reliable, low-cost satellites (for imagery and positioning) are few key technologies characterizing the precision agriculture trend. Precision agriculture is one of the most famous applications of IoT in the agricultural sector and numerous organizations are leveraging this technique around the world.
2.	Idea / Solution description	The food shortage and the population growth are the most challenges facing sustainable development worldwide. Advanced technologies such as artificial intelligence(AI), the Internet of Things (IoT), and the mobile internet can provide realistic solutions to the challenges that are facing the world. Therefore, this work focuses on the new approaches regarding smart farming (SF) from 2019z to 2021, where the work illustrates the data gathering, transmission, storage, analysis, and also, suitable solutions. IoT is one of the essential pillars in smart systems, as it connects sensor devices to perform various basic tasks. The smart irrigation system included those sensors for monitoring water level, irrigation efficiency, climate, etc. Smart irrigation is based on smart controllers and sensors as well as some mathematical relations. In addition, this work illustrated the application of unmanned aerial vehicles (UAV) and robots
3.	Novelty / Uniqueness	Perhaps one of the most promising agritech advancements is the use of agricultural drones in smart farming. Also known as UAVs (unmanned aerial vehicles), drones

		are better equipped than airplanes and satellites to collect agricultural data. It includes some of the most profitable crops for small farms, which can become great income sources if you are looking to generate money from your farm.
4.	Social Impact / Customer Satisfaction	The green concept and the development of agriculture product are still in the infant stage in india . Therefore, there is a need to gain knowledge about the consumer's behaviour towards agriculture products. Specifically, this study attempts to examine consumer's perception, purchase intentions and actual purchase behaviour and the interrelationship between them in the context of agriculture products.
5.	Business Model (Revenue Model)	On forms, IoT allows devices across a farm to measure all kinds of data remotely and provide this information to the farmer in real time .IOT devices can gather information like soil moisture , chemical application ,dam levels and livestrock health –as well as monitor fence, vehicles and weather.
6.	Scalability of the Solution	Automatic adjustment of farming equipment made possible by linking information like crops/weather and equipment to auto-adjust temperature, humidity, etc. Smart Framing has enabled farmers to reduce waste and enhance productivity with the help of sensors (light, humidity, temperature, soil, moisture, etc).