Project Design Phase-I

Proposed Solution Template

Date	11 October 2022
Team ID	PNT2022TMID34110
Project Name	SmartFarmer –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)	Farmer needs solution to double the food because demand for food is getting hard to meet.
2.	Idea / Solution description	Farmers need to meet demand of food, regardless of environmental challenges like unfavorable weather conditions and climate change. To meet the needs of that growing population, the agriculture industry will have to adopt new technologies. Here comes the role of smart Farming. IoT-based smart farming is highly efficient. In IoT-based smart farming, a system is built for monitoring the crop field with the help of sensors (light, humidity, temperature, soil moisture, etc.) and automating the irrigation system. The farmers can monitor the field conditions from anywhere.
3.	Novelty / Uniqueness	➢ Sensors are used to sense the surroundings and collect information about the soil, temperature, humidity and so on. ➢ The information collected from sensors are sent to IoT based cloud platforms for data analytics. ➢ Based on the analysis done the farmers make relevant decisions to generate better outputs.

		➢ When the tasks are operated the cycle repeats itself from the beginning.
4.	Social Impact / Customer Satisfaction	➢ The farmer does not even have to step on the field. ➢ The cost of manual labour reduces. ➢ Integrates and connects the entire farm to improve quality and quantity of crops and other produce. ➢ Decrease in the waste generation and a phenomenal increase in productivity. ➢ Increase in profitability by providing help to both farmers and consumers.
5.	Business Model (Revenue Model)	➢ Key activities: > Product development >Platform development, integration and maintain. ➢ key resources: > Sensors > Cloud service(software) > IoT dedicated network > Digital platform ➢ Value propositions: > Convenient > Customization > Performance ➢ Customer relationships: > Self - service > Network effect > Support ➢ Channels: > Internet > Mobile ➢ Customer segments: > Farmers > Agribusinesses ➢ Cost structure: > Digital infrastructure > Maintenance

		➢ Revenue streams: > Advertising > Subscription fees
6.	Scalability of the Solution	By using more gateways, tens of thousands of seniors we deployed easily. This capability is vital to support cases like temperature monitoring. Once the infrastructure is in place, it is vital that new applications can be added without the need to change or replace the infrastructure (gateways)