

**Project Design Phase-I**  
**Proposed Solution Template**

Date	19 September 2022
Team ID	PNT2022TMID35659
Project Name	SmartFarmer - IoT Enabled Smart Farming Application
Maximum Marks	2 Marks

**Proposed Solution :**

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"> <li>• Remote irrigation considering various parameters like temperature, soil moisture and humidity.</li> <li>• Efficient usage of water such as to maximise the yield.</li> </ul>
2.	Idea / Solution description	<ul style="list-style-type: none"> <li>• IoT enabled Smart Farming using various sensors which helps to make the decision more precise.</li> </ul>
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> <li>• Considering weather forecast and making accurate decision.</li> <li>• Using solar energy to power IoT device and sensors.</li> <li>• Alert farmers when attention is required and also notify if any fault occurs in the motor.</li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>• Reduces Human effort and almost saves seventy percent of time of farmers.</li> <li>• Eco-friendly and reduces the water wastage.</li> <li>• Automate the process and makes the farmers to get used to technology.</li> </ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>• Subscription based model, charges for predicting and suggesting precise decision.</li> <li>• Charging for installation and replacement of sensors and other hardware.</li> </ul>
6.	Scalability of the Solution	<ul style="list-style-type: none"> <li>• Easily scalable even for huge farms just by increasing the number of sensor and changing the communication medium.</li> <li>• Analysis of data is also scalable and different decisions can be made for different regions of the same farm.</li> <li>• System is dynamic and can be customised for each crop accordingly.</li> </ul>