

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

Date	19 September 2022
Team ID	PNT2022TMID2135
Project Name	Project - 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)	<ul style="list-style-type: none"><li>• Watering the field is a difficult process; Farmers have to wait in the field until the water covers the whole farm field and sometimes they may over irrigate it.</li><li>• The Second Challenge Faced in the Agricultural Sector are Lack of Information, High Adoption, Cost and Security Concerns, etc</li></ul>
2.	Idea / Solution description	<ul style="list-style-type: none"><li>• In IOT based Agriculture Smart Farming Technique Enables Farmers better to monitor the fields and maintain the humidity level accordingly.</li><li>• The Data collected by sensors, In terms of humidity, temperature, moisture, and dew detections help in determining the weather pattern in Farms. So cultivation is done for suitable crops.</li></ul>
3. N	Novelty / Uniqueness	<ul style="list-style-type: none"><li>• IoT sensor nodes collect information from the farming environment, such as soil moisture, air humidity, temperature, nutrient ingredients of soil, pest images, and water quality, and then transmit collected data to IoT backhaul</li><li>• Giving farmers the remote access to their farms</li></ul>

4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>• Reduces the wages for labours who work in the agricultural field.</li> <li>• It saves a lot of time.</li> <li>• IoT can help improve customer relationships by enhancing the customer's overall experience.</li> <li>• Easily identify maintenance needs, build better products, send personalized communications, and more.</li> <li>• IoT can also help e-commerce businesses thrive and increase sales.</li> <li>• Increased production and optimisation of all the processes related to agriculture and livestock-rearing increases production rates.</li> <li>• Less Water usage</li> </ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>• Climate-smart agriculture is a pathway towards development and food security built on three pillars: increasing productivity and incomes, enhancing resilience of livelihoods and ecosystems and reducing and removing greenhouse gas emissions from the atmosphere</li> </ul>
6.	Scalability of the Solution	<ul style="list-style-type: none"> <li>• Smart Farming systems use modern technology to increase the quantity and quality of agricultural products. Livestock tracking and Geo fencing. Smart logistics and warehousing. Smart pest management. Smart Greenhouses</li> </ul>