

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

Team ID	PNT2022TMID33440
Project Name	Project - SmartFarmer - IoT Enabled Smart Farming Application
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**Proposed Solution Template:**

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

S.No.	Parameter	Description
1.	<b>Problem Statement (Problem to be solved)</b>	To provide an efficient decision support system using wireless sensor networks which handle different activities of the farm and give useful information related to the farm. Information related to Soil moisture, Temperature and Humidity content. Due to the weather condition, water level increases Farmers get a lot of distractions which is not good for Agriculture. Water level is managed by farmers in both Automatic/Manual using

		that mobile application. It will make it more comfortable for farmers. Performing agriculture is very much time consuming.
2.	<b>Idea / Solution description</b>	<p><b>One Stop Solution</b></p> <ul style="list-style-type: none"> <li>● Get the hardware as well as the software bundled with the solution.</li> </ul> <p><b>Equipment and livestock Efficiency Analysis</b></p> <ul style="list-style-type: none"> <li>● Know real-time equipment efficiency and its current status.</li> </ul> <p><b>Personalized Mobile App</b></p> <ul style="list-style-type: none"> <li>● We will configure the mobile app for your personalized experience.</li> </ul> <p><b>Soil Moisture Management</b></p> <ul style="list-style-type: none"> <li>● Manage moisture level in crops through actuator triggered sprinkler system.</li> </ul>
3.	<b>Novelty / Uniqueness</b>	Various eminent researchers have been making efforts for smart farming by using IoT concepts in agriculture. But, a bouquet of unfolded challenges is still in a queue for their effective solution. This study make some efforts to discuss past research and open challenges in IoT based agriculture.

4.	<b>Social Impact / Customer Satisfaction</b>	Climate change, deforestation, biodiversity loss, dead zones, genetic engineering, irrigation problems, pollutants, soil degradation, connections, remotes are not in control, and waste.
5.	<b>Business Model (Revenue Model)</b>	<ul style="list-style-type: none"> <li>➤ Target Segment</li> <li>➤ Product Offering</li> <li>➤ Revenue Model</li> <li>➤ Cost Model</li> <li>➤ Quality Organization</li> </ul>
6.	<b>Scalability of the Solution</b>	Scalability is a major concern for IoT smart farming platforms. It has been shown that different architectural choices of IoT platforms affect system scalability and that automatic real time decision-making is feasible in environment composed of dozens of thousands of sensors continuously transmitting data. Scaling means maximizing the impact of agricultural interventions through horizontal or vertical approaches.