## Project Design Phase-I

## Proposed Solution Template

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| Date | 10 October 2022 |
| Team ID | PNT2022TMID32030 |
| Project Name | Smart Farmer-IoT Enabled smart Farming Application |
| Maximum Marks | 2 Marks |

### Proposed Solution Template:

| S.No | Parameter | Description |
|---|---|---|
| **1.** | Problem Statement (Problem to be solved) | • Watering the field is a difficult process, Farmers have to wait in the field until the water covers the whole farm field.<br>• Power Supply is also one of the problems. In Village Side, the power supply may vary.<br>• The Biggest Challenges Faced by IoT in the Agricultural Sector are Lack of Information, High Adoption, Cost and Security Concerns, etc |
| **2.** | Idea / Solution description | • As is the case of precision Agriculture Smart Farming Technique Enables Farmers better to monitor the fields and maintain the humidity level accordingly.<br>• 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. |
| **3.** | Novelty / Uniqueness | ALERT MESSAGE – 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, then transmit collected data to IoT |

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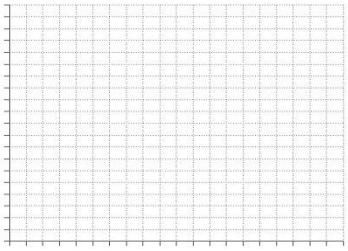
| | | backhaul devices. REMOTE ACCESS – It helps the farmer to operate the motor from anywhere |
| **4.** | Social Impact / Customer Satisfaction | Smart farming helps farmers to better understand the important factor such as water, topology, aspect ,vegetation and soil best use of scarce resources with in their production environment and manage these in environmental and economical sustainable manner economically. |
| **5.** | Business Model(Revenue Model) | Revenue (No. of Users vs Months)  |
| **6.** | Scalability of the solution | Case studies have shown precision irrigation has a 5%-8% impact on yield and a similar impact on operating costs. Smart farm's systems can be retrofitted on existing sites and provide immediate impact with a very short |