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

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| Date | 21 October 2022 |
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| Project Name | Project – Smart Farmer - IoT Enabled smart Farming Application |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | * The act of watering a field is challenging; farmers must wait in the field until the entire farm field is submerged in water. * One of the issues is the power supply. Power availability in Village Side may be variable. * The IoT in Agriculture Faces the Following Major Challenges * High Lack of Information * Security, Cost, and Adoption * worries, etc. |
| 2. | Idea / Solution description | * As with smart farming and precision agriculture * Farmers are better able to keep an eye on their fields and adjust the humidity level as needed thanks to technology. * The information gathered by sensors—which includes information on humidity, temperature, wetness, and dew detections—helps forecast the weather in farms. So, cultivation for suitable crops is carried out. |

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| 3. | Novelty / Uniqueness | **ALERT MESSAGE** – IoT sensor nodes gather data from the agricultural environment, including soil moisture, air humidity, temperature, the nutrients in the soil, pest images, and water quality, and then send the gathered information to IoT  backhaul devices. |
|  |  | **REMOTE ACCESS -** The farmer can control the motor from anyplace, which is  helpful. |
| 4. | Social Impact / Customer Satisfaction | * Reduces the pay for workers in the agricultural sector. * It helps you save lots of time. * By boosting the consumer experience overall, IoT can help strengthen customer relationships. * Identify maintenance requirements quickly, create better products, provide tailored communications, and more. * IoT may also boost sales and make e- commerce companies successful. It creates a prosperous society. |
| 5. | Business Model (Revenue Model) | Revenue (No. of Users vs Months)  800  700  600  500  400  300  200  User 100  0  0 2 4 6  Months |
| 6. | Scalability of the Solution | Scalability in smart farming refers to a system's ability to expand its capacity, such as the number of technological components like sensors and actuators, while allowing  for prompt analysis. |



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