**Project Design Phase-I**

**Proposed Solution**

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| Date | 17 October 2022 |
| Team ID | PNT2022TMID16877 |
| 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.

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | Overuse of pesticides and fertilizer in agricultural fields leads to destruction of the crop as well as reduces the efficiency of the field increasing the soil vulnerability toward pest. IoT applications may be used to update the farmer/user about type & quantity of pesticide required by the crop. |
| 2. | Idea / Solution description | The use of IoT in agriculture is commonly referred to as Smart Farming or Smart  Agriculture. It uses various IoT sensors to send the farm's data, like humidity, temperature, soil moisture, etc. to the cloud which can be monitored and controlled from anywhere in the world. |
| 3. | Novelty / Uniqueness | Monitoring information, such as soil condition, moisture, and temperature, and the prediction of natural factors, such as rainfall and weather, support the control of growing conditions of crops, helping farmers plan and make irrigation decisions to optimize pro- duction and reduce labour costs. |
| 4. | Social Impact / Customer Satisfaction | IoT in agriculture is designed to help farmers monitor vital information like humidity, air temperature and soil quality using remote sensors, and to improve yields, plan more efficient irrigation, and make harvest forecasts. |
| 5. | Business Model (Revenue Model) | The application is available on a subscription basis. |
| 6. | Scalability of the Solution | IoT in agriculture uses robots, drones, remote sensors, and computer imaging combined with continuously progressing machine learning and analytical tools for monitoring crops, surveying, and mapping the fields, and providing data to farmers for rational farm management plans to save both time and money. |