**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 19 September 2022 |
| Team ID | PNT2022TMID49700 |
| Project Name | IOT Based Smart Crop Protection System for Agriculture |
| 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) | * Crop damage caused by animal and birds attacks is one of the major threats in reducing crop yield. * Soil moisture conditions affect plant root water absorption and leaf transpiration. |
| 2. | Idea / Solution description | * Put an electric fence around the planting place. * A layer of organic matter like straw covers the bare ground between plants and helps to maintain soil moisture. |
| 3. | Novelty /Uniqueness | * IOT Based crop protection system against birds and wild animal attacks * Sprinkler irrigation is a method of applying irrigation water which is similar to natural rainfall. * Soil moisture (SMM) devices provide information about the water status of soil. knowing the soil water status can help you plan when to irrigate and how much water to apply. |
| 4. | Social Impact / Customer Satisfaction | * Sprinkler Irrigation for irrigating crops where the plant population per unit area is very high, this system is suitable. * Soil moisture includes increasing crop yields, saving water. |
| 5. | Business Model (Revenue Model) | * Soil moisture sensors aid good irrigation management. Good irrigation management gives better crops, uses fewer inputs, and increases profitability. |
| 6. | Scalability of the Solution | * They are simple to use and easy to install. * In addition to agricultural use, they can also be used for pollution and global warming. * They are equipped with wireless chip so that they can be remotely controlled. |