**Project Design Phase-I**

**Proposed Solution Template**

| Date | 29 September 2022 |
| --- | --- |
| Team Members | Sanchana.C  Swetha.S  Swetha.J  Yamuna.P |
| Project Name | IOT Based Smart Crop Protection System for Agriculture |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

| **S.No.** | **Parameter** | **Description** |
| --- | --- | --- |
|  | Problem Statement (Problem to be solved) | Develop smart & affordable solution to protect crops from wild  animals  (Technology Bucket: IoT, UAV, AI, GPS etc.) |
|  | Idea / Solution description | Thanks to IoT and smart farming, the dependency on manual labor has reduced significantly. The processes like pest control, fertilizing, and irrigation are increasingly becoming automated, and farmers can control them remotely. The use of smart IoT sensors can maintain these processes, increasing crop production. |
|  | Novelty / Uniqueness | 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. |
|  | Social Impact / Customer Satisfaction | IoT enables easy collection and management of large amounts of data collected from used sensors with the help of joining experimental distribution such as cloud storage, agricultural field maps, and other details that can found anywhere and everywhere that enables live monitoring and end-to-end connections. IoT is considered an important part of clever farming because by accurately using sensors and smart gadgets, farmers can increase production by 72% by the year 2050 as described by experts. With the use of IoT creations, the costs can be reduced to a dramatic level that will increase productivity and survival. With the use of Io efficiency, it will be greatly increased until water, soil, fertilizer, pesticides, etc. are used. |
|  | Business Model (Revenue Model) | IoT smart farming solutions is a system that is built for monitoring the crop field with the help of sensors (light, humidity, temperature, soil moisture, crop health, etc.) and automating the irrigation system. The farmers can monitor the field conditions from anywhere. |
|  | Scalability of the Solution | Agriculture is not just an industry; in fact, it provides the basis of human society, as the goal is not just to grow crops, but the target is the perfection of human being. A vibrant and prosperous agriculture sector can provide the basis for a happy and healthy society, as recent decades witnessed this. The presence of advance technologies, especially the involvement of the IoT, matters a great deal in regard to reaching this goal. |