**Project Design Phase-I**

**Proposed Solution Template**

| Date | 14 October 2022 |
| --- | --- |
| Team ID | PNT2022TMID52627 |
| 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.

| **S.No.** | **Parameter** | **Description** |
| --- | --- | --- |
|  | Problem Statement (Problem to be solved) | Agriculture is done manually from ages.As the world is trending into new technologies and implementations it is a necessary to trend up with agriculture also. Migration of people from rural to urban is a hindrance in agriculture. So to overcome this problem we have proposed an IOT and smart agriculture system. |
|  | Idea / Solution description | In olden days,Traditional farming methods were used where the soil and livestock were managed manually. These methods were time consuming and expensive. And also sometimes the predictions of human were not accurate also difficult to detect outbreaks at an early stage.The motive of smart farming is to increase the quality and quantity of agricultural goods at the same time keeping in mind the cost and energy usage.IoT is responsible for modernizing the agricultural field by using proficient methods and instruments to manage crops, soil and animals. This in turn has led to decrease in the waste generation and a phenomenal increase in productivity. This is smart agriculture using IoT. |
|  | Novelty / Uniqueness | Smart farming systems reduce waste, improve productivity and enable management of a greater number of resources through remote sensing.applications of robots or drones in agriculture include weed control, cloud seeding, planting seeds, harvesting, environmental monitoring and soil analysis. |
|  | 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.Also it enables farmers to reduce waste and enhance productivity ranging from the quantity of fertilizer utilized to the amount of water used for irrigating a field. It further ensures that the farm produce is transported in the most optimal and transparent manner. |
|  | Business Model (Revenue Model) | The motive here is to increase the quality and quantity of agricultural goods at the same time keeping in mind the cost and energy usage.The resulting product must be cost efficient and affordable to all. |
|  | Scalability of the Solution | Scalability in smart farming refers to the adaptability of a system to increase the capacity, for example, the number of technology devices such as sensors and actuators, while enabling timely analysis. |