**Project Design Phase-I**

**Proposed Solution Template**

|  |  |
| --- | --- |
| Date | 2 October 2022 |
| Team ID | PNT2022TMID44926 |
| Project Name | Project – Smart Farmer-IoT Enabled smart Farming Application |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | * Recycling sites are always unhygienic, unsafe and unsightly. ... * Products from recycled waste may not be durable. ... * Recycling might not be inexpensive. ... * Recycling is not widespread on large scale. ... * More energy consumption and pollution. ... * Result in pollutants.   . |
|  | Idea / Solution description | * Increases economic security by tapping a domestic source of materials. * Prevents pollution by reducing the need to collect new raw materials. * Reusable bags and containers. ... * Reuse water bottles, coffee mugs, and plates too! ... * Skip on individually wrapped items, specifically food in snack packs or single-serving containers. * Start composting in the kitchen and yard. ... * Go paperless in the kitchen too! ... * Recycle more. |
|  | Novelty / Uniqueness | * **Sensors measure the level of waste Containers send the info to a data management system of the level of waste or last collection. Only certain bins are marked for collection. Vehicles only collect full or overdue containers. The way waste is collected is smarter, reducing overall transport and collection by 50%.** * **Its ultrasonic fill-level sensor enables it to detect any type of waste. Smart waste bin sensor transmits data it collects in real-time through wireless networks to BioEnable smart waste management platform.** |
|  | Social Impact / Customer Satisfaction | .  Poor waste management contributes to climate change and air pollution, and directly affects many ecosystems and species. Landfills, considered the last resort in the waste hierarchy, release methane, a very powerful greenhouse gas linked to climate change. |
|  | Business Model (Revenue Model) |  |
|  | Scalability of the Solution | * The system is implemented using two ultrasonic sensors which is being controlled by Node MCU. One of the ultrasonic sensor detects the level of the waste in the bin and other detects the person approaching the bin to dispose the waste. This detection helps in automatic opening and closing of the lid. |