

Project Design Phase-I

Proposed Solution Template

| | |
|---------------|---|
| Date | 19 September 2022 |
| Team ID | PNT2022TMID53733 |
| Project Name | Smart Waste Management System For Metropolitan Cities |
| Maximum Marks | 2 Marks |

Proposed Solution Template:

| S.No | Parameter | Description |
|------|--|--|
| 1. | Problem Statement (Problem to be solved) | <p>The process in current city setting solves the waste problem partially while it creates other problems like</p> <ul style="list-style-type: none">• Some trash bins are overfilled while others are under-filled by the trash collection time,• Overfilled trash bins create unhygienic problems,• All collected trash is combined which complicates sorting for recycling the waste. |
| 2. | Idea / Solution description | A sensor attached to the trash bin that measures fill level and a communication system that transfers this data to Cloud. Data is processed in the Cloud. |
| 3. | Novelty / Uniqueness | The trash is sorted as recyclable and non-recyclable before it is put in the trashcan by the person. The recyclable wastes are processed and recycled. |
| 4. | Social Impact / Customer Satisfaction | Since there are sensors to intimate the municipality once the trashcan is full. There would be no hygienic problem. Since the trashcan will not be full when the user puts the trash there would be no confusion to search for a different trashcan. |
| 5. | Business Model (Revenue Model) | There are sensors for making the process easier for the user, so it would be useful to have a smart trashcan at an affordable rate. |
| 6. | Scalability of the Solution | There would be trucks to collect the trash. If we optimize the routes for the trucks, it would save fuel and reduce traffic. |