Project Design Phase-I

Proposed Solution

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| Team ID | PNT2022TMID52303 |
| Project Name | Smart Waste Management System For  Metropolitan Cities |

**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) | * Rubbish and waste can cause air and water pollution. * Rotting garbage is also known to produce harmful gases mix with the air and cause breathing problem in people. * Due to improper waste disposal,we may face several problems like unpleasant odour and health problems. |
| 2. | Idea / Solution description | The key research objectives are as follows:   * The proposed system would be able to automate the solid waste monitoring process and management of the overall collection process using IOT (Internet of Things). * The Proposed system consists of main subsystems namely Smart Trash System(STS) and Smart Monitoring and Controlling Hut(SMCH). * To solve this problem of waste management for disposal for disposal using a smart refuse bin built with technologies. * Garbage truck weighing Mechanisms. |
| 3. | Novelty / Uniqueness | * Identify potential waste streams. * Create a waste management-focused community outreach plane |
| 4. | Social Impact / Customer Satisfaction | * Neighbourhood of landfills to communities, breeding of pests and loss in property values. * The IOT solution uses the data and selects optimum routes for waste collection trucks. |

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| 5. | Business Model (Revenue Model) | Waste Management organises its operations into two reportable business segments:   * Solid Waste, comprising the Company’s waste collection, transfer, recycling and resource recovery, and disposal services, which are operated and managed locally by the Company’s various subsidiaries, which focus on distinct geographic areas. * Corporate and Other, comprising the Company’s other activities, including its development and operation of landfill gas-to- energy facilities in the INDIA, and its recycling brokerage services, as well as various corporate functions. |
| 6. | Scalability of the Solution | * Installing more bins for collecting recyclables like paper, glass, plastic. * Recycling not only save energy but also prevent the material from going to landfills & incineration and provides raw materials for new products. |