

Project Design Phase-I

Proposed Solution

Date	25 October 2022
Team ID	PNT2022TMID17949
Project Name	Project – Smart Waste Management System for Metropolitan Cities
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"> ➤ Filled garbage cans are unnoticed by the scavengers, who collect them. ➤ Improper maintenance and staffing in garbage collection sector
2.	Idea / Solution description	<ul style="list-style-type: none"> ➤ Creating an IOT based garbage can, which can check whether the cans are filled ➤ It also sends the live status of bins to the respective garbage collection centre.
3.	Novelty / Uniqueness	This idea makes this garbage collection in a computerized way, which is unique when compared to the previous versions of the system.
4.	Social Impact / Customer Satisfaction	In case of social impact, this is completely done for the sake of common people, who suffer from improper disposal of wastes in their residence. If this comes to regular use, this creates a satisfaction to common people.
5.	Business Model (Revenue Model)	Power supply can be taken using a solar panel. So, there won't be any expense other than the initial can's cost. In case of revenue, this is a project done for public welfare, so if revenue is needed, we could get some it through government for maintaining these things
6.	Scalability of the Solution	In this regard, smart city design has been increasingly studied and discussed around the world to solve this problem. Following this approach, this paper presented an efficient IoT-based and real-time waste management model for improving the living environment in cities, focused on a citizen perspective. The proposed system uses sensor and communication technologies where waste data is collected from the smart bin, in real-time, and then transmitted to an online platform where citizens can access and check the availability of the compartments scattered around a city.