Project Design Phase-I
Proposed Solution Template

Date	17 October 2022
Team ID	PNT2022TMID47912
Project Name	Smart Waste Management System For Metropolitan Cities
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	This project aims at developing an IOT based centralized module by using ultrasonic and weight sensors to accurately determine the level and weight of waste, as well as its location using a GPS module, and to alert the administrator about the status of the bin.
2.	Idea / Solution description	➢ Wastes are collected in trash bins. ➢ Each and every trash bin is embedded with Ultrasonic and weight sensor. ➢ Based on the waste overflow, once it crosses the particular threshold it sent the signal to the centralized module. ➢ The centralized module will interact with the dashboard to indicate the level of each bin.
3.	Novelty / Uniqueness	➢ In traditional waste management system, the corporation and the people are involved in manual collection of wastes without identifying the exact and shortest path. ➢ However, our proposed method uses a GPS module to locate the bin, which minimizes the workload for front-line labor.

4.	Social Impact / Customer Satisfaction	➢ This project helps in reducing manual collection of wastes from the bins which are located in various locations. ➢ It diminishes the need for frontline workers to regularly check the trash can. ➢ Our effort attempts to create an atmosphere free from infections. ➢ By providing a clean environment, it satisfies the customer (citizens).
5.	Business Model (Revenue Model)	➢ By offering a GPS to pinpoint the location, the need for human labor is reduced. ➢ Waste collection costs are decreased. ➢ Fuel expenditure on the garbage collection truck is kept to a minimum.
6.	Scalability of the Solution	Dynamic Web Application is available for all the time.