Project Design Phase-I
Proposed Solution Template

Date	10.10.2022
Team ID	PNT2022TMID02004
Project Name	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)	This project addresses the problem of garbage management in urban settings when waste collection systems are not optimised. This project gives the associations the ability to solve their problems with executive frameworks and smart garbage. This system enables the authorised person to continuously determine the fill level of each garbage can in a city or region, allowing them to direct the carriers in an intelligent and effective manner.
2.	Idea / Solution description	The key research objectives are as follows: • IOT might be used in the suggested framework to automate the strong trash inspection cycle and the board of the general collection operation (Web of Things). • The core subsystems of the proposed architecture include the Shrewd Garbage System (STS) and the Savvy Observing and Controlling Hut (SMCH). • The circuit at the trash canister in the proposed framework detects when the waste container is full and conveys this information to the recipient at the proper location nearby or spot. •In the suggested framework, the signal received indicates the condition of the waste container at the checking and regulating framework.

3.	Novelty / Uniqueness	We intend to implement SWM in our college, but one of the biggest challenges is that the janitors (cleaners) don't know how to use these systems in practise. To overcome this obstacle, our team decided to construct a wristband that would alert them via light blinking when the dustbin was full. This was the unique contribution we made here in addition to meeting the project's requirements.
4.	Social Impact / Customer Satisfaction	According to popular opinion, the direct social effects of current solid waste disposal procedures, such as the proximity of landfills to neighbourhoods, the development of pests, and the decline in property value, are the worst.s

5.	Business Model (Revenue Model)	Solid Waste, which consists of the Company's waste collection, transfer, recycling, resource recovery, and disposal services, is managed and operated locally by the Company's various subsidiaries, which concentrate on specific geographic areas. Corporate and Other, which consists of the Company's other activities, such as the development and operation of landfill gas-to energy facilities
6.	Scalability of the Solution	In order to address this issue, smart city design is being researched and debated more and more globally. Following this methodology, this article proposed a powerful IoT-based, real-time trash management model with an emphasis on citizens to enhance urban living conditions. The suggested method makes use of sensor and communication technologies, collecting garbage information from the smart bin in real-time and sending it to an internet site that city residents may visit to see whether the compartments are still available.