

Project Design Phase-I
Proposed Solution Template

Date	16/11/2022
Team ID	IBM-Project-22716-1659857011
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 waste management in smart cities where the waste collection system is not optimized. This project will enable organizations to meet their needs for an intelligent waste management system. This system keeps authorized personnel informed of the fullness levels of all trash bins in a town or city, providing truck drivers with cost-effective and time-saving routes.
2.	Idea / Solution description	<p>The main research objectives are as follows.</p> <ul style="list-style-type: none">• The proposed system could use the Internet of Things (IOT) to automate the management of the entire solid waste monitoring and collection process.• The proposed system consists of the main subsystems: Smart Waste System (STS) and Smart Monitoring and Control Hut (SMCH).• In the proposed system, every time the bin is full, it is checked by placing the circuit in the bin. This will send it to receivers in the desired location of the area or location.• In the proposed system, the received signal indicates the status of the waste container on the monitoring and control system.
3.	Novelty / Uniqueness	We are trying to install SWM at our university, but the real difficulty is that the janitor (cleaner) doesn't really know how to operate it. can is a fill, which I'm clarifying along with the project constraints.

4.	Social Impact / Customer Satisfaction	From public perception, direct social impacts such as landfill proximity to communities, pest proliferation and loss of property values are considered to be the worst impacts of current solid waste management practices.
5.	Business Model (Revenue Model)	Waste Management organizes its business into two reportable business segments. Geographic Area; Enterprises and Other Operations includes the Company's other activities, including the development and operation of landfill gas-to-energy plants in India, recycling brokerage services, and various corporate functions.
6.	Scalability of the Solution	In this regard, smart city design is being increasingly researched and discussed around the world to solve this problem. Following this approach, this paper focused on the citizen's perspective and presented an efficient IoT-based real-time waste management model for improving urban living conditions. The proposed system uses sensors and communication technology, where real-time waste data is collected by smart bins and transmitted to an online platform. Citizens can access compartments scattered throughout the city to check availability.