

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID14976
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)	The municipal workers who are engaged in the collection of garbage require a sustainable, streamlined process for an efficient waste collection system and to integrate the databases containing information about waste from each of the municipal offices to design an improvised system where the garbage collectors or municipal workers will be given an alert regarding the availability of waste. As a result, time and fuel consumption are achieved and garbage collection operations are performed in a much more fluid way.
2.	Idea / Solution description	The main objective of the project is to collect the waste from the from the municipal bins when filled, then to interconnect all the bins through internet of things. By using the concept of supply chain management, data management and statistical predictions algorithm the route for the waste collection is designed for a specified time. This waste management ideation enhances the time consumption and thus prevents the overflowing of bin and effective use of man power and resources.
3.	Novelty / Uniqueness	Incorporating cloud to trigger the process of collecting the trashes and optimising supply chain management workability.
4.	Social Impact / Customer Satisfaction	Increased fuel efficiency and human resource management, saves money, simplifies reporting and information sharing, improves sustainability, and lowers greenhouse gas emissions.
5.	Business Model (Revenue Model)	Targeted customers being governments and waste management companies (B 2 C and B2B), this increases the revenue in a steady way.
6.	Scalability of the Solution	This is highly scalable since the number of bins can be increased and the other resources can be scaled by using IBM cloud.