

Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID35789
Project Name	Smart Waste Management For Metropolitan Cities
Maximum Marks	2 Marks

Proposed Solution Template:

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

S.No.	Parameter	Description
	Problem Statement (Problem to be solved)	<p>The amount of waste produced everyday by the industries and the households is increasing at an appalling rate, and the major reason for this is soaring use of packaged items, textiles, paper, food, plastics, metals, glass etc, thus management of this refuse becomes a crucial part in our everyday life.</p> <p>Due to the increasing waste, the public bins which are used for collecting this waste are overflowing, the locality is jumbled of trash, causing not only malodorous streets but also a negative impact on the health and environment.</p>
	Idea / Solution description	<ul style="list-style-type: none">● Garbage level detection in bins.● Getting the weight of the garbage in the bin.● Alerts the authorized person to empty the bin whenever the bins are full.● Garbage level of the bins can be monitored through a web App.● We can view the location of every bin in the web application by sending GPS location from the bins.
	Novelty / Uniqueness	<p>We use optimal routing in trucks to reach sources, it decreases the usage of fuels used in vehicles, thus reducing the fuel usage.</p>

	Social Impact / Customer Satisfaction	<p>The proposed solution helps us to manage the wastes produced by domestic as well as commercial sources in an efficient manner. This further leads to a cleaner and hygienic environment leading to a healthy standard of living as this helps us to prevent many contaminated diseases. This solution also eases the work of sanitary workers which in turn increases their value in our society.</p>
	Business Model (Revenue Model)	<p>Since we use optimal routing in trucks to reach sources, it decreases the usage of fuels used in vehicles, thus reducing the fuel cost. Further, we aim at producing a cost efficient and user friendly model.</p>
	Scalability of the Solution	<p>This proposed solution is possible in both rural and urban areas since the requirement is proper and sufficient internet facility. In short, this solution can be implemented in all areas which have proper network connectivity.</p>