

**Project Design Phase-I**  
**Proposed Solution Template**

Date	23/09/2022
Team ID	PNT2022TMID38779
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)	<ul style="list-style-type: none"><li>❖ Rubbish and waste can cause air and water pollution.</li><li>❖ Rotting garbage is also known to produce harmful gases mix with the air and cause breathing problem in people.</li><li>❖ Due to improper waste disposal, we may face several problems like unpleasant odour and health problems.</li></ul>
2.	Idea / Solution description	<ul style="list-style-type: none"><li>❖ To solve this problem of waste management for disposal using a smart refuse bin built with technologies like Sensors, Arduino.</li><li>❖ Garbage truck Weighing Mechanisms.</li><li>❖ AI Recycling Robots.</li></ul>
3.	Novelty / Uniqueness	<ul style="list-style-type: none"><li>❖ Identify potential waste streams.</li><li>❖ Create a waste management-focused community outreach plan.</li></ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"><li>❖ Neighbourhood of landfills to communities, breeding of pests and loss in property values.</li><li>❖ The IOT solution uses the data and selects optimum routes for waste collection trucks.</li></ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"><li>❖ It generates revenue through the provision of various waste management and disposal services.</li><li>❖ Recycling solutions to residential, commercial, industrial, and municipal clients</li></ul>
6.	Scalability of the Solution	<ul style="list-style-type: none"><li>❖ Installing more bins for collecting recyclables like paper, glass, plastic.</li><li>❖ Recycling not only save energy but also prevent the material from going to landfills &amp; Incineration</li></ul>