

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

Date	24 September 2022
Team ID	PNT2022TMID42807
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)	<ul style="list-style-type: none"> <li>• Inadequate communal containers for sorting waste, lack of routine collection of waste and inadequate resources for the sanitation unit to efficiently collect the waste generated</li> <li>• Irregular collection service and collection coverage</li> <li>• High cost</li> <li>• Garbage overflow</li> <li>• Lack of sufficient knowledge on benefits of segregation</li> </ul>
2.	Idea / Solution description	<ul style="list-style-type: none"> <li>• Elimination of missed pickups</li> <li>• If garbage level reaches maximum, notification sends to higher authority</li> <li>• Citizens easily access information about the public waste using mobile application</li> <li>• Large size dustbins are used to reduce collection trips and cost</li> <li>• Using container tracking your waste changes to smart pastures</li> <li>• Mobile application is used to detect the bin level and capture image when we need</li> <li>• In our system if dustbin is relocated to another location, it will automatically register with the server with new location</li> <li>• Garbage bins are separated by biodegradable and non-bio degradable</li> </ul>
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> <li>• End to end waste container solution is essential for picking up trash and its efficient disposal</li> <li>• Easy way to track and detect the solution</li> </ul>

		<ul style="list-style-type: none"> <li>• If bin is not clean the notification sends to higher authority</li> <li>• Waste is sorted, weighted and recorded automatically</li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>• Reduction of co2 emission</li> <li>• Improved cleanliness</li> <li>• More eco-friendly reducing overflow in bins and ensuring community safety</li> <li>• Keeps the environment clean and fresh</li> <li>• Reduce environmental pollution</li> </ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>• Reduce cost</li> <li>• It is easier to municipal corporation for their betterment of management of regarding collection of wastes</li> <li>• Saving worker's time</li> <li>• It improves employee efficiency</li> <li>• Low workers need</li> </ul>
6.	Scalability of the Solution	<p>Rating of 10</p> <ul style="list-style-type: none"> <li>• Users -9</li> <li>• Product -9</li> </ul>