

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

Date	31 october 2022
Team ID	PNT2022TMID31482
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)	Waste management in metropolitan cities faces numerous challenges. The main problem faced by the metropolitan cities are detecting the garbage level whether it is filled or not and also we need to measure the weight of the garbage bin. Then alerts the authorized person to empty the bin whenever the bins are full. We need to develop a web application to monitor the status of the bins remotely at anywhere. The application should provide the location of the every bin connected in the application with the help of global positioning system (GPS). The indication of the bins and the location of the every bin should be provided by web applications simultaneously.
2.	Idea / Solution description	Smart waste management is characterized by the usage of technology in order to be more efficient when it comes to managing waste. This makes it possible to plan more efficient routes for the trash collectors who empty the bins, but also lowers the chance of any bin being full for over a week.
3.	Novelty / Uniqueness	A reduction in the number of waste collections needed by up to 80%, resulting in less manpower, emissions, fuel use and traffic congestion.
4.	Social Impact / Customer Satisfaction	Reducing waste will not only protect the environment but will also save on costs or reduce expenses for disposal. In the same way, recycling and/or reusing the waste that is produced benefits the environment by lessening the need to extract resources and lowers the potential for contamination.

5.	Business Model (Revenue Model)	Waste Management generates revenue through the provision of various waste management and disposal services and recycling solutions to residential, commercial, industrial, and municipal clients. The Company derives its revenue in the form of various fees associated with its service offerings.
6.	Scalability of the Solution	As the product is offered with subscription service , further development in both software and hardware can be made