

Project Design Phase-I Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID32932
Project Name	Project-SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES
fMaximum Marks	2 Marks

Proposed Solution Template:

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

S.No.	Parameter	Description
•	Problem Statement (Problem to be solved)	Detecting the overflowing of trash bins in early stages to avoid the risk for both environment and human.
•	Idea / Solution description	Using sensors when a trash bin is about to fill, the authorities are immediately notified and collection trucks can be scheduled for a pickup even before the pre-scheduled time. Collect and analyse area-specific data on waste volumes for better planning.
•	Novelty / Uniqueness	Uses the data and selects optimum routes. Provide a filling graph to see its filling cycles and picks over the last few weeks. Detailed database of bin fullness and interactive bin map including street view as well as encourage recycling.
•	Social Impact / Customer Satisfaction	Monitoring the amount of waste and periodic collection reduce the environmental damage and improve street sanitation. Raise public awareness of utilizing renewable resources.
•	Business Model (Revenue Model)	A business model related to MSW may help in the disposal and segregation of e-waste. The business model is very calculative about the capacity of the entity to generate revenue. A business model creates a link between the governing bodies and non-governmental entities involved in e-waste management. Business models have aimed at household e-waste management also.
•	Scalability of the Solution	Selects the optimum routes for waste collection trucks.

		This leads to a pickup process which doesn't consider empty trash bins, saving fuel as well as manpower.
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