

Project Design Phase-I
Proposed Solution Template

Date	21 October 2022
Team ID	PNT2022TMID04731
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)	Indiscriminate disposal of solid waste is a major issue in urban centers of most developing countries and it poses a serious threat to healthy living of the citizens. Access to reliable data on the state of solid waste at different locations within the city will help both the local authorities and the citizens to effectively manage the menace.
2.	Idea / Solution description	To develop the intelligent solid waste monitoring system using Internet of Things (IoT) and cloud computing technologies. The fill level of solid waste in each of the containers, which are strategically situated across the communities, is detected using ultrasonic sensors.
3.	Novelty / Uniqueness	Analysing the different type of waste.
4.	Social Impact / Customer Satisfaction	Customer satisfaction is an important goal. To meet this goal ,it is necessary to use an evaluation model for measuring the customer satisfaction level. Some important criteria such as, Quality of trash bin ,responsibility of municipal etc. are distinguished and used in the proposed model.
5.	Business Model (Revenue Model)	Smart waste management is one of the essential component of today's technology. It will reduce the waste in cities and reduce the man power.It help

		to calculate types of waste and amount of the waste. The waste management services take care of a healthy environment allowing optimization of the utilities and prevent overloading the carrier for waste disposal
6.	Scalability of the Solution	We can use the capacitance sensor in the bin continuously monitors the level of the bin in real time and communicates to the central cloud where the bins are connected. Ultrasonic sensor is used to open and close the lid of the bin whenever the persons are nearby the bin.