

Project Design Phase-I

Proposed Solution

Date	10 October 2022
Team ID	PNT2022TMID00928
Project Name	Smart waste management system for metropolitan cities
Maximum Marks	2 Marks

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none">➤ The major problems are unscientific treatment , improper collection of waste, and ethical problems➤ Cost is the big challenge➤ Uncontrolled waste management can lead to medical and healthcare waste being mixed with household waste.➤ if trash has been deposited unevenly in one part of the bin than the other, the sensors may read that the bin is full, when in reality it is only half full.
2.	Idea / Solution description	<ul style="list-style-type: none">➤ To solve this problem of waste management for disposal using a smart refuse bin built with technologies like Sensors, Arduino➤ Garbage truck Weighing Mechanisms and AI Recycling Robots.➤ management of the overall collection process using IOT (Internet of Things).➤ Recycled plastic building is a great way to solve the waste management challenges.
3.	Novelty / Uniqueness	<ul style="list-style-type: none">➤ It can give correct and accurate information➤ Create a waste management-focused

		<p>Community</p> <ul style="list-style-type: none"> ➤ Fair investment in the circular waste management sector could generate a profit, both in monetary and social terms. ➤ Recycled plastic could help make buildings more solid and reduce the environmental impact
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> ➤ It has a great interactive dashboard for predicting the Wastage ➤ The IOT solution uses the data and selects optimum routes for waste collection trucks ➤ Lower-income families tend to produce less waste and thus pay lower waste collection fees.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> ➤ It has huge revenue when it comes to the market. ➤ Recycling solutions to residential , commercial etc.
6.	Scalability of the Solution	<ul style="list-style-type: none"> ➤ Large-scale infrastructure, and economic activities enable innovation and efficiency. ➤ Recycling not only save energy but also prevent the material from going to landfills and incineration and provide raw material for new products.