Project Design Phase-I
Proposed Solution Template

Date	23 September 2022
Team ID	PNT2022TMID22482
Project Name	Project – Smart Waste Management For Metropolitan Cities
Maximum Marks	2 Marks

Proposed Solution Template:

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	1)Cost effective waste management: ->For customer who wants to save money, we have many solutions. We can look at current waste management process and advice where you can save money. ->We reduce collections for one of our clients from twice a week to once a fortnight. 2)Reducing your carbon footprint, saving staff time: ->To reduce the carbon footprint the machines themselves are more energy efficient, but mostly costly when fewer collections are required. ->It's common concern that waste management takes up lot of staff, when having a defined process and right equipment, It takes less time .
2.	Idea / Solution description	1)Smart waste management focuses on solving the previously mentioned solid waste management problems using sensors, intelligent monitoring systems and mobile applications. 2)To make the more effective smart waste management first making the solution to make the waste collection more efficient is sensors.
3.	Novelty / Uniqueness	1)AI recycling robots 2)Garbage truck weighing mechanism 3)pneumatic waste pipes 4)solar-powered trash compactors 5)E-waste kiosks 6)Recycling apps 7)Waste level sensors 8)Smart waste bins

4.	Social Impact / Customer Satisfaction	1)The development of a smarty waste management has been sustainable environment in the need of our society today. 2)By the proper disposal of waste and recycling it make the environment clean and make the places fit to live. 3)By satisfying the customer the smart waste management will be reaching not only metro cities also in village sides.
5.	Business Model (Revenue Model)	1)By collecting the fair amount of money from the customer for providing the service to clean their waste in the customer area. 2)Charging the customer for maintaining the components used in the smart bins. 3)By making use of the mobile applications for tracking up the smart bins in specific area to generate a revenue.
6.	Scalability of the Solution	1)Smart waste bins works on the presents of the architecture, modelling, simulation, and physical implementation of a versatile, scalable system for use in common type waste bins. 2)The sensing units are based on the ultrasonic sensor that provides ranging information which is translated to fill-level estimation based on the extensive simulation.

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