Project Design Phase-I

Proposed Solution Template

Date	1 October 2022
Team ID	PNT2022TMID49848
Project Name	Project – Smart Waste Management System
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)	With the existing methods of collecting and disposal it is near impossible to manage such amount of waste in the future as around 30% of waste end up on the roads and public places due to ineffective disposing and collecting methods.
2.	Idea / Solution description	Smart waste management is about using technology and data to create a more efficient waste industry. Based on IoT (Internet of Things) technology, smart waste management aims to optimize resource allocation, reduce running costs, and increase the sustainability of waste services.
3.	Novelty / Uniqueness	Through its unique smart waste management technology, Sensoneo is redefining the way waste is managed. Sensoneo solutions cover from asset tracking for bins all the way to the automated on-demand collection planning
4.	Social Impact / Customer Satisfaction	Using IoT and smart sensors, waste management companies can increase

		operational efficiency, cut costs, and enhance customer satisfaction.
4.	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.
5.	Scalability of the Solution	scalable system for waste bins that can senseand send accurate waste level of the bins while consuming lessresources and having cost-effective components. The systemoperates by utilizing ultrasonic sensors that senses andtransmits waste fill-level estimations. The system wasmodelled, simulated using MATLAB and physicalimplemented. In the implementation, RFID technology isemployed having an active RFID tags that stores theinformation as well as RFID readers that reads and interpret the information.