Project Design Phase-I
Proposed Solution

Date	24 Sep 2022
Team ID	PNT2022TMID35517
Project Name	Smart waste management using IoT
Maximum Marks	2

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)	In urban cities, large number of waste are collected which are not segregated properly. At times, medical waste and electronic wastes are dumped along with biodegradable waste. Non-biodegradable waste are not recycled properly instead accumulated and polluting the earth's environment. These problems are caused by improper maintenance of garbage bins therefore these garbage bins are to be properly maintained.
2.	Idea / Solution description	To avoid the overflow of garbage bins, the sensors detects the level of wastes in the trash container, and notifies it through the web application to the waste collectors and they can view the location of every bin in the web application by sending GPS location from the device.
3.	Novelty / Uniqueness	Effective waste management should be everyone's priority. However, with the increase in population growth, it becomes critical to manage the waste. If there are no measures taken in time, the world will be on a path of overwhelming pollution. Smart waste management technology improves the management of the city services by using in-built sensors where data analytics and technology together notifies the waste collectors, reduces the odour, and enhances the appearance of the bins in public areas. In addition, it helps improve the quality of life of the people.

4.	Social Impact / Customer Satisfaction	Waste management services can benefit the citizens and the cities from IoT smart device solutions. Using the technology, the companies can increase efficiency and enhance customer satisfaction, ensuring minimal overflowing bins. To transform the traditional waste collection to smart bins in the cities, one needs to implement innovative waste management techniques. With all these technological aspects available, the market holds a strong future promising to improve urban areas.
5.	Business Model (Revenue Model)	Waste Management generates revenue through the provision of various 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.
6.	Scalability of the Solution	Scalability is high as this model is easy to process and is cost effective. Wastes collection is managed very efficiently as we are using modern technologies for maintaining the system