KONGU ENGINEERING COLLEGE
Project Design Phase-I
Proposed Solution Template

Team ID	PNT2022TMID04344
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES
Maximum Marks	2 Marks
Team Members	DHARANEESH KT GANESHKUMAR S GOGHUL S HARISHRAAJ S DHANUSH P

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Solid waste disposal is a major problem for both residents of metropolitan regions and urban centres in the majority of developing nations.
2.	Idea / Solution description	The proposed idea is to detect garbage levels in bins and getting the weight of the garbage in the bin. In order to address these issues An idea called "smart bin" has been put out, and it combines software and hardware technology. By providing a GPS position from the device, we can use the web application to see where each bin is located. This makes it easier for the designated person to come and collect the trash.

3.	Novelty / Uniqueness	Utilize a load sensor to estimate the weights. The data are transmitted to the sensor known as Node MCU by the load sensor, which forecasts the precise value. In addition, we continue to offer client assistance once product setup is complete, including both on-site and remote support based on customer needs.
4.	Social Impact / Customer Satisfaction	Reduces the fuel usage and route optimization when emptying trash all around the city. It leads to spend less time and money. We can guarantee that everyone is in good health. Everywhere throughout the cities, cleanliness is maintained.
5.	Business Model (Revenue Model)	It promotes a healthy environment, maintains the environment clean and green, eliminates the smell of garbage, and keeps cities looking more attractive. lowering the number of people needed to manage garbage collection. The city administration will be able to generate reports, exercise control over the budget, limit waste, and get a broad awareness of the situation. It is possible to detect and improve driver routes, fill patterns, lower operating costs, and schedules using past data gathered by sensors and databases. It is more practical to collect garbage effectively using remote monitoring and IoT-based waste bins. Additionally, it lowers fuel and route costs.

6.	Scalability of the Solution	In any large city, this initiative will be quite successful at controlling garbage. Here, a priority system is implemented in place of more traditional periodic collection techniques to ensure that the city is always clean and free of overflowing dumpsters.