

Project Design Phase-I
Proposed Solution Template

Date	22 September 2022
Team ID	PNT2022TMID15872
Project Name	Smart Waste Management For Metropolitan Cities
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)	There are several issues faced by the residents of the flats. One of them is the disposal of solid waste. This is due to high housing demands which have drastically risen because of migration from villages to cities to find work.
2.	Idea / Solution description	The garbage level in dustbins is monitored continuously and lock the dustbin with help of a solenoid lock if the dustbin gets filled. Thus no one can able to open it before the disposal of waste.
3.	Novelty / Uniqueness	In this project, we used an ultrasonic sensor to detect the garbage level and solenoid lock. Once the dustbin is filled the sensor automatically sends the notification through IoT and activates the lock, then the dustbin will get locked.
4.	Social Impact / Customer Satisfaction	Makes a clean and healthy environment. To automate the waste management process efficiently. This avoids voids infectious diseases like dengue, cholera, and parasitic diseases.
5.	Business Model (Revenue Model) social and economic quality.	Waste Management incurs costs in relation to the procurement of supplies and equipment – including vehicles, the development of its website and online platform, the maintenance of its IT and communications infrastructure, the operation of its physical waste management facilities, the management of its partnerships, the implementation of marketing and advertising campaigns, and the retention of its personnel.
6.	Scalability of the Solution	Smart cities can create safe and sustainable environments that are centred on the well-being of their inhabitants. They can and do achieve that success by focusing on accessibility, transportation, improved healthcare, and reduced waste to improve social and economic quality.