

Project Proposal

Project Title: Smart Waste Management System For Metropolitan Cities

Team ID: PNT2022TMIDO5224

Date: 29-10-2022

Problem Statement:

The collection and disposal of garbage waste is in unordered, inefficient way which leads to overfilling of bins, rotting garbage smell and more fuel consumption of collecting trucks.

Purpose Statement (Goals):

The purpose of this project is to focus on problems of detection of emptying of a recycling container using sensor measurements.

Solution description:

- Using sensors, weighing machine; real time monitoring the level of waste in bins.
- The information gets shared with appropriate authorities and fellow citizens through web application

Uniqueness/ Novelty:

Citizens & industries behaviors during specific festival, events at different seasons are monitored and are predicted for garbage overflowing. Also, to find the shortest path to reach the destiny for trucks in basis of fuel and time consumption.

Social Impact / Customer Satisfaction:

Informative, effective management of waste in big cities reduces waste impacts over environment pollution

Business Model (Revenue Model):

- Eco-friendly.
- Optimized route navigation system.
- Reduce fuel consumption.
- Alerts authority by real-time monitoring.
- Promote 3R's (Reduce, Reuse, and Recycle).

Scalability of the Solution:

- The need-driven waste collection eliminates unnecessary traffic blockage.
- Generate important statistical data for monitoring for waste collection.
- Recycling is promoted between residents, results in clean & sustainable environment.