Project Design Phase-I
Solution Architecture

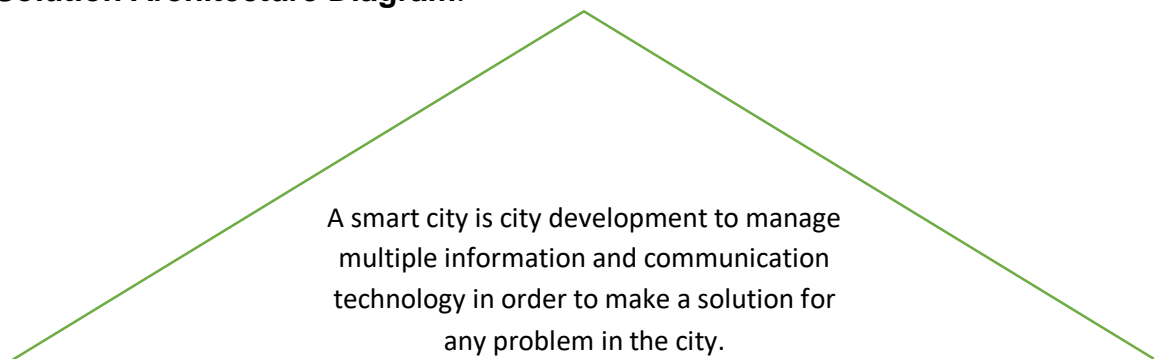| Team ID	PNT2022TMID16132
Project Name	Smart Waste Management System for Metropolitan Cities
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.

- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.

- Define features, development phases, and solution requirements.

- Provide specifications according to which the solution is defined, managed, and delivered.

Solution Architecture Diagram:

A smart city is city development to manage multiple information and communication technology in order to make a solution for any problem in the city.

In smart cities, the IOT embedded smart waste bins that are capable of monitoring the waste state inside the bins

To overcome this challenges we proposed efficient routing using Enhanced Route Selection (ERS) Algorithm which will overcome data communication delay.

It provides hygienic, efficient and economic solid waste storage, collections , transportation and treatment or disposal of waste without polluting the atmosphere ,soil or water system.

WiFi /
LTE/3G

IoT Cloud

Real Time Cloud Monitoring
of Different Aspects of Bins

Smart Bins with
IoT Edge Nodes

Data Analysis and
User Interface

Collection of
the Wastes

Optimized Route for
Waste Collection