SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

Smart waste management is about using technology and data to create a more efficient waste industry. Based on Internet Of Things technology smart waste management aims to optimize resource allocation, reduce running costs, and increase the sustainable of waste services .Reducing the wastages cuts down the costs related to its disposal. Reducing renovates the scrap product and makes it usable one more time.

Whereas reuse enables us to reutilize the items that are still in good condition for use .Another objectives is to lower down the harmful pollution impacts of garbage.

It is characterized by the usage of technology in order to be more efficient when it comes to managing waste. This makes it possible to plan more efficient routes for the trash collectors who empty the bins. but also lowers the chance of any bib being full for over a week!

Innovations in waste reduction technologies allow us to better monitor , prevent , and manage our waste.This includes appliances that deal with waste sustainable smartphone apps to track waste and help us develop eco-friendly habits and sensors to accurately measure what we have and what were tossing.

IOT devices turn this model on its head by using smart trash bins to detect location , temperature and fill level in real time and this data is then used to plan

optimal collection routes rsulting In an efficient pickup process that saves fuel as well as manpower.

When placing garbage into the container a sensor measures its capacities . Then the compactor compresses the waste and again takes a measurement. Finally the smart bin sends a notification by mail or SMS when the container is ready to be emptied.

Solid waste management is faced with a number of issues which includes lack of throughput , inadequate solid waste data , efficiency problem,delays in collection and resisytance to new technologies.It uses several sensors and communication technologies to achieve the set task .There is an enormous amount of room for the development of this project in order for it to meet commercial standards . The accelerometer will make the system save more energy by turning on the system to measure the bin level only when the lid is opened to dispose waste. The system would then update its current state on thingspeak and turn off, preventing unnecessary when the bin's level has not been altered due to dormancy.Another recommendation is the use of solar panel for power generating making its power suppy autonomous.