SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

Domain of the Project :IOT

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Objectives

- The objective of solid waste management is to reduce the quantity of solid waste disposed off on land by recovery of materials and energy from solid waste as depicted.
- The GPS coordinates of the garbage bin will be sent to the IB M IoT platform.
- The location of the bins along with bin status can be viewed in the Web Application.

Abstract

- The Internet of Things (IoT) paradigm plays a vital role for improving smart city applications by tracking and managing city processes in real-time.
- One of the most significant issues associated with smart city app lications is solid waste management, which has a negative impact on our society's health and the environment.
- This work proposes an IoT-enabled solid waste management syst em for smart cities to overcome the limitations of the traditional waste management systems.

Introduction

- The Internet of Things (IoT) is a concept that refers to the ever-expanding network of internet-connected devic es that are currently in use all over the world.
- IoT plays a pivotal role in enhancing smart city applic ations through real-time monitoring and management of city processes.
- One of the biggest challenges associated with smart c ity applications is solid waste disposal, which impacts our society's health and nature.

• By 2050, global waste is estimated to reach 3.40 billi on tons, more than doubling population growth over t hat period .

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
Smart Waste Man agement System Using IOT	S.A.Mahajan & 2017		This project shows how the smart w aste management system using IOT cam be implemented. This proposed system assures the collection of gar bage level reaches its maximum lev el. Thus, dustbins will be cleared as and when filled, giving way to clean er city.

		Improper disposal and improper mai
Smart Waste Man	Tejashree Kad	ntenance of domestic waste create is
agement System	us	sues in public health and environme
Using IOT	&	nt pollution thus this paper attempts
	2020	to provide practical solution toward
		s managing the waste collaborating
		using IOT. 4

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
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Garbage Managi ng System Using IOT	Asha and Bala murugan& 2019	This model creates awareness about how hygiene of our surrounding gar bage cans is important. It also helps in segregating dry and wet waste & also helps in checking the toxicity le vel of the waste further simplifying t he municipality work of collecting g arbage.
Automation of S mart Waste Man agement Using I OT	Madhuri Moh are & 2019	Here using a one variable voltage so urce & set -250v as a threshold value By varying voltage below threshold value we got output on virtual terminal that is dustbin is not full.

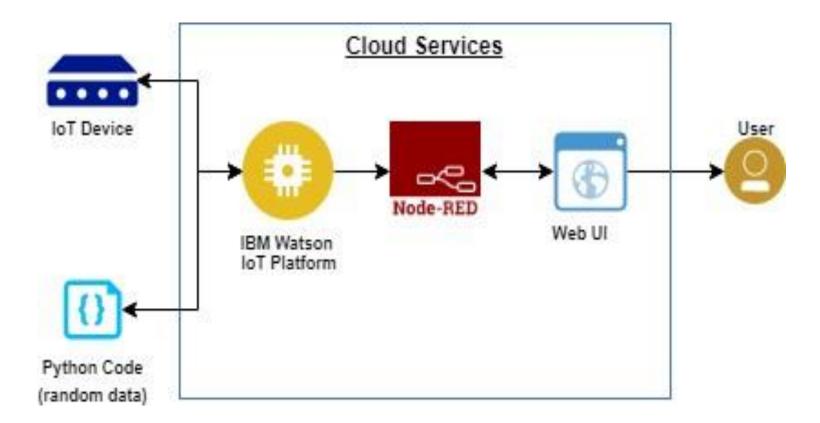
TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
IOT Adoption bar riers of smart citi es waste manage ment	Manu Sharma & 2020		Waste management of smart cities is considered to be the most important issue in developing countries over the past decades. A review of existing literature revealed fifteen IOT of smart cities waste management.

IOT Technologie s Based Smart W aste Collection	Brucu Oralha n and Yavuz Yigit & 2016		Our presented smart waste manage ment system can be improved by usi ng some other knowledge such as a garbage container area population, u sing future garbage container fill lev el estimation.
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Problem Identification

- Some trash bins are overfilled while others are underfilled by the trash collection time.
- Overfilled trash bins create unhygienic conditions.
- Unoptimized truck routes result in excessive fuel usage and en vironmental pollution.
- All collected trash is combined which complicates sorting at the recycling facility.

Block Diagram



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THANK YOU

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