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Department of Electronics and Communication Engineering

HX8001 - PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTREPRENEURSHIP

GAS LEAKAGE MONITORING AND ALERTING SYSTEM

Domain of the Project :Smart Waste Management System For Metropolitan Cities
Batch ID : B12-6A2E
Team ID :
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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 IBM 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 impr oving smart city applications by tracking and managing city proc esses in real-time.
- One of the most significant issues associated with smart city app lications is solid waste management, which has a negative impac t 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 .

Literature Survey

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
Smart Waste Management System Using IOT	S.A.Mahajan & 2017		This project shows how the smart waste management system using IOT cam be implemented. This proposed system assures the collection of garbage level reaches its maximum level. Thus, dustbins will be cleared as and when filled, giving way to cleaner city.
Smart Waste Management System Using IOT	Tejashree Kadus & 2020		Improper disposal and improper maintenance of domestic waste create issues in public health and environment pollution thus this paper attempts to provide practical solution towards managing the waste collaborating using IOT.

Literature Survey

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
Garbage Managing System Using IOT	Asha and Balamurugan& 2019		This model creates awareness about how hygiene of our surrounding garbage cans is important. It also helps in segregating dry and wet waste & also helps in checking the toxicity level of the waste further simplifying the municipality work of collecting garbage .
Automation of Smart Waste Management Using IOT	Madhuri Mohare & 2019		Here using a one variable voltage source & set -250v as a threshold value By varying voltage below threshold value we got output on virtual terminal that is dustbin is not full.

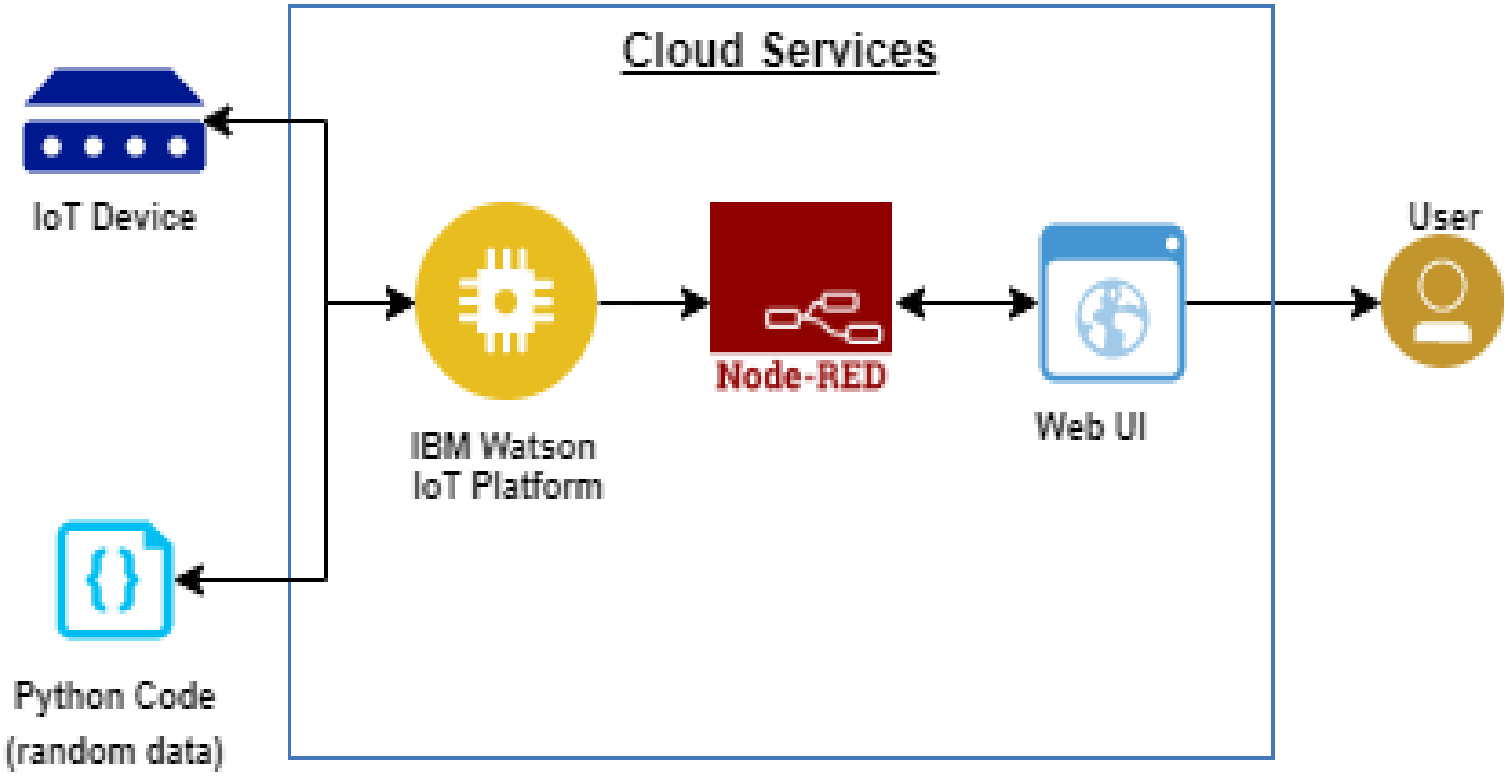
Literature Survey

TITLE	AUTHOR & YEAR	JOURNAL NAME	REMARKS
IOT Adoption barriers of smart cities waste management	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 Technologies Based Smart Waste Collection	Brucu Oralhan and Yavuz Yigit & 2016		Our presented smart waste management system can be improved by using some other knowledge such as a garbage container area population, using future garbage container fill level estimation.

Problem Identification

- Some trash bins are overfilled while others are underfilled by t he 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 th e recycling facility.

Block Diagram



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Questions & Discussion

THANK YOU