Abstract

Seminar Topic: **Efficient IOT-Based Smart Bin for a Clean Environment**

Dustbins play a pivotal role in waste management globally, encompassing diverse materials such as industrial, sewage, and domestic waste. While indoor dustbins cater to household waste, our focus lies on outdoor municipal dustbins, particularly in street corners, crucial for maintaining a clean environment. Unfortunately, roadside bins often lack proper monitoring and maintenance. This paper proposes an Innovative Waste Disposal System for Smart Cities, deeming it essential for modern urban landscapes. Leveraging the Internet of Things (IoT) in both Indoor Systems (IS) and Municipal Systems (MSC), our approach integrates sensors, detectors, and actuators for enhanced Quality of Service (QoS). Specifically designed for Smart Cities, the system incorporates a sophisticated Intelligent System (IS) and Inspection systems, ensuring efficient waste management. The highlight is an automated alert-based smart bin or garbage collection system, promptly notifying authorities for timely intervention. This proposed solution is poised to revolutionize waste disposal, offering a comprehensive and technologically advanced approach to monitoring and managing the complete waste disposal process in an effective and streamlined manner.

Objective

The objective of this proposed system is to revolutionize waste management in Smart Cities by implementing an Efficient Waste Disposal or Management System utilizing Internet of Things (IoT) technology. The primary focus is on enhancing the quality of service (QoS) in waste management, particularly in outdoor areas like streets, where dustbins are prone to inadequate monitoring and cleaning.