Location Based Garbage Management System with IOT for Smart City

Progress Presentation 1

Project ID : 17-100

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Overview

- ❑ Identified problem
- ❑ Proposed solution
- ❑ Progress
- ➢ Setting up the garbage bin
- ➢ Web Server and Web Service Setup
- ➢ Workforce application development
- ➢ End user application development

Identified Problem

- ❑ There are just not enough garbage bins available

- ❑ Lots of environmental issues

- ❑ No method to encourage and inform people

- ❑ Overflowing garbage bins

- ❑ Available workforce not utilized properly

Proposed Solution

☐ Build a cost effective garbage management system for the municipal council that will help them keep the city a cleaner place.

☐ Build a system (Garbage bin/ android application/ website) that will encourage people to use garbage bins instead of littering.

Progress of Our Four main components

❑ Setting up the garbage bin

❑ Web Server and Web Service Setup

❑ Workforce application development

❑ End user application development

Setting up the Garbage Bin

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Setting up the Garbage Bin

All the Processes of the garbage bin are implemented on a Raspberry pi zero Development Board.

Setting up the garbage bin divided into three main sub-functions

❑ Hand Gesture System
❑ Measure the Real time Garbage level
      Data Transfer
      Bin lock mechanism
❑ Security System

Web Server and Web Service Setup

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Web Server and Web Service Setup

Web Server Setup
- ❑ Setting up VPS
- ❑ Hosting website
- ❑ Installing and setting up Databases

Web Services
- ❑ Analytical system
- ❑ Generate reports
- ❑ Monitoring system

Workforce Application Development

Workforce Application

- Real-time level and bin location

- Route calculation

- disabling/re-enabling security system

End User Application Development

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End user application

This application has the following functionality

- ➤ Database Connection
- ➤ Bin navigator
- ➤ Feedback system

Thanks!

Any questions?