IOT BASED SMART GARDENING & LIVE MONITORING IN PUBLIC PARKS

College code:9133

Course: (IOT)-Internet Of Things.

Phase 1: Problem definition & Design thinking.

Project Title: IOT based Smart gardening & live monitoring in public parks

Team Members:

SHENBAGAVALLI.L
shenbagavallilakshmikanthan86@gmail.com

PADMAPRIYA.J.M
padmapriyajmece2021@gmail.com

SATHYAPRIYA.S
sathyapriyasece2021@gmail.com

SOWMIYA.S
sowmiyasece2021@gmail.com

SHANMUGAPRIYA.S
shanmugapriyaece2021@gmail.com

Problem definition :

Our project involves setting up IoT devices to monitor environmental conditions in public parks, including temperature and humidity. The primary objective is to provide real-time environmental data to park visitors through a public platform.This project includes defining objectives, designing the IoT sensor system, developing the environmental monitoring platform, and integrating them using IoT technology using Python. We have developed an IOT based Smart gardening in public parks using raspberry pi controller module.

Objective:

We have used raspberry pi 4 controlling module for IoT and sensors like (DHT22) temperature &humidity sensors,Moisture level sensor. we will update the data on cloud and based on readings we will take the appropriate action. The data will be displayed over the dashboard in public parks for live monitoring.

Design & thinking:

Raspberry Pi controlling module is used for gathering the data from sensors like LDR(Light depedent Resistor), Temparature sensor, Soil Moisture level sensor. If the soil moisture level is very low then we will turn ON motor to supply water to those crops . We are monitoring the motor status using cloud and motor is controlled in the MQTT server . We are using temparature sensor to regulate the water on crop's root which will keep the crop fresh. Raspberry Pi is gathering the data from all sensors and sending/publishing all those data to MQTT server and controlling it. If there is no water available to motor there will be a warning notifications displayed. In addition,live environmental monitoring is also implemented.

Conclusion statement:

* it will be easy to control the motor within your smart phone itself by the controller.

* our smart irrigation system can also help farmers reduce water usage.

*It may help farmers avoid accidental deforestation and soil erosion.

* Less maintenance only and low cost.

THANK YOU!