

Intelligent Street Lighting System

Software Installations:

1. Update your Raspberry Pi sudo

apt-get update sudo apt-get upgrade

2. Install Python and pip if not

already installed sudo apt-get install

python3 python3-pip

3. Install required Python packages

pip3 install RPi.GPIO pip3 install

pad4pi pip3 install flask pip3 install

flask-cors pip3 install requests

4. Create a project directory

mkdir street_light_system cd

street_light_system

5. Create a static directory for web files mkdir

static

Project Setup :

1. Create the main Python file: nano

street_light_system.py

2. Copy the code into this file.

3. Make the script executable: mod +

street_light_system.py

Running the Project :

1. Start the system: `python3 street_light_system.py`
2. Access the web interface:
3. From the same Raspberry Pi: `http://localhost:5000`
4. From other devices on the network: `http://[raspberry_pi_ip]:5000`

To find your Raspberry Pi IP: `hostname -I`

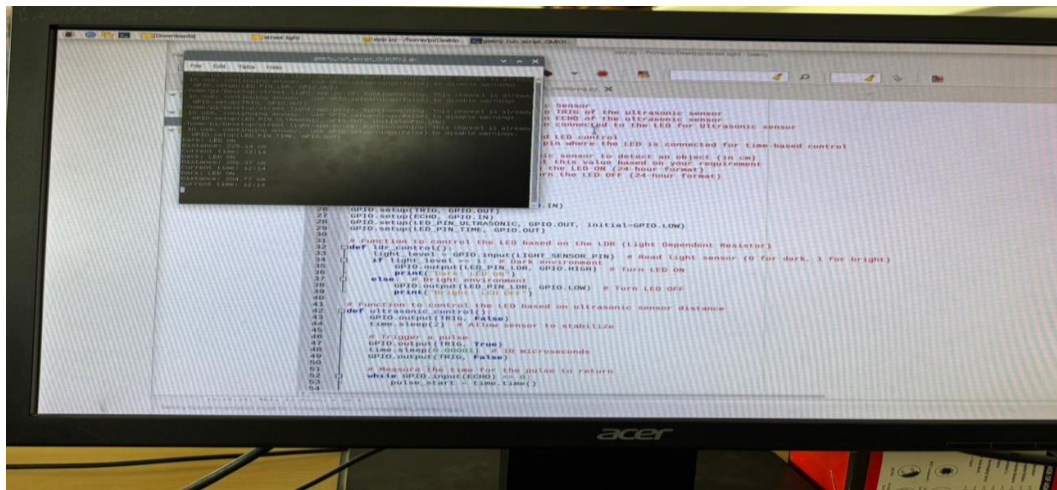


Fig. The Code of the Project

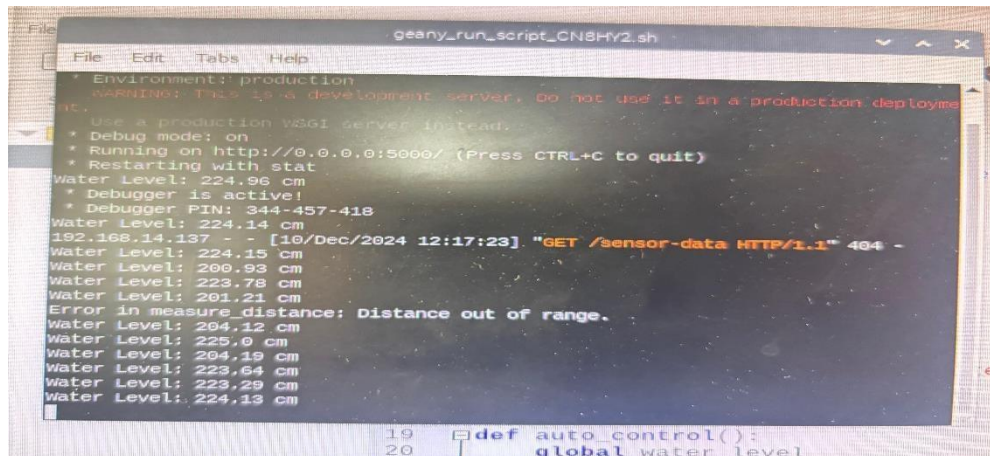


Fig. The Terminal Page of the Project