CSEE5590-0005/490-0005

IOT / Robot Programming

LAB ASSIGNMENT # 3

Lesson Title: Smart IOT Home Environment

Lesson Description: Visualization of the IOT Smart Home

Team 1: Ahmed, Cameron, Marajan, Syed Jawad

Contributions:

Ahmed: Coding and Raspberry PI setup.

Cameron: Coding and Smart home Visualization setup.

MaraJan: Board and sensor setup, MIT app inventor and Raspberry PI interface setup.

Jawad: MIT app design and setup and Report creation.

Lab Report:

In this lab assignment the task was to make a smart home visualization app using IOT tools, like board, sensors, Arduino, Raspberry PI, MIT app inventor etc. The project goal was to create IOT smart home raspberry PI/ Arduino visualization system that inter faces with an android app developed with MIT app inventor.

The goal of this project was to create visualization system based on Arduino and raspberry Pi and deploy this system on app inventor. Initially the weather sensor was attached to the Arduino along with Wi-Fi sensor. This Arduino was then connected to raspberry PI operating system. The weather data from this Arduino/raspberry pi system was dynamically displayed on the android app, developed using MIT app inventor.

The data from weather sensor was dynamically displayed on the app in the form of charts and the data was displayed in the intervals of hours. Below are the screen shots of this project along with a youtube link that shows the video of this project.

Screen Shots:

A screenshot of a computer

Description automatically generated

A close up of text on a black background

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A screenshot of a computer

Description automatically generated

A close up of a computer

Description automatically generated

A circuit board

Description automatically generated

A close up of a device

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**Youtube Video Link:**

[**click here for the video**](https://youtu.be/KdpFG_67q9c)