**CSEE5590-0005/490-0005**

**IOT / Robot Programming**

**LAB ASSIGNMENT #2**

**Lesson Title:** Smart IOT Home Environment

**Lesson Description:** *Visualization of the IOT Smart Home*

The Lab assignment is based on Smart home IOT system. The aims of the project are as follows:

1. Create Arduino/ raspberry pie-based project which will be developed in MIT app inventor.
2. The app should have the ability to turn on the data transmission
3. Connect any type of sensor with it and dynamically visualize the data in android.
4. For example, we connect dust sensor with Arduino and develop app in MIT app inventor. The app should have the capability to turn on the sensor and turn off the sensor. If the sensor is turned on. The sensor should first send a notification “Data Transmission Started”. The app should show the data dynamically in form of graph for the slot of 2 hours. When turn off from app is invoked the data transmission should stop and notification will be received as “Sensor Data stopped”.
5. Finally, the Arduino should be connected via Wifi sensor rather than over the Bluetooth that was exercised in class.
6. Use appropriate use of LED’s, buzzer’s and alerting system as previously exercised.
7. Integrate the step 1 – 6 in EELEGO Robot.

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