CENG 5434   Microcomputer Systems Design HW6
1st Project Report Due November 2, 2020

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1.Finish up HW5 this week – Carefully

2. View Videos from 10/19/2020 if you missed class.

Comment on the video

Top 7 IoT (Internet of Things) Projects | IoT Project Ideas | IoT Training | Edureka

794,387 views •Jun 5, 2018   13:00

https://www.youtube.com/watch?v=bsycx2zbCxA

HW6   View the IoT Video – Summarize it. Be sure to check out Alan Pan's Zelda controlled home. There is no limit to our imaginations if we use it. See what Facebook's CEO can do at home.

3. Project HW6 = DUE: November 2, 2020

Reading assignment: FINAL_PROJECT_INSTRUCTIONS outline on our web site.

 (NOTE: For projects that require outside references, <u>references</u> are required.

Select a project for the semester to be completed by the night of the final. Choose an application with a microcontroller and follow the PROJECT guidelines on the WEB site.

This can be your own design or a description of an existing product or system.

TO DO:

Write-up a brief discussion of your proposed project. It must involve a MODERN microcontroller and an interesting application. Since we are not having lab time, I understand that it will probably be a "paper" study. Don't forget to acknowledge references.

In two weeks (November 2, 2020) present a short written description of your project.

The report should include the following:

1. A description of the requirements for the system or product – this specifies what the system does and how the user interacts with the system. Include user inputs and output displays, etc.
2. Describe the Inputs for the system in terms of the modules needed such as Digital I\O. A2D converters, Serial I\O , etc.
3. Describe the Outputs for the system in terms of the modules needed such as Digital I\O, PWM, Serial I\O, etc.
4. Describe the processing that the microcomputer must perform such as Conversion of input data, mathematical processing, Output conversions, etc.
5. Present a Block Diagram for your system and define the inputs and outputs

Be Detailed as possible – use numbers if possible, etc. However, for this assignment, the description should be in terms of the general requirements and the functional requirements.

Hardware diagrams or Software flowcharts are not needed unless they are part of the requirements. These should be included in the final report in the Appendix.