İzmir Katip Çelebi University

Department of Electrical and Electronics Engineering

EEE316 Microprocessors

Spring 2020

Experiment VIII

GLCD

Pre-Lab Report

- Please study related topics in reference notes.
- Answer the questions under the lab activities. Prepare report in the specified format.
- Send e-mail to research assistants' mail address until May 20, 23:59
- Your .rar file must include source files, prelab report and video presentation.

Experimental Work

- Please explain your code step by step in video presentation.

Lab Objectives

- Embedded programming with C language
- Understanding of GLCD

References

- Ibrahim, D. "Using LEDs, LCDs and GLCDs in Microcontroller Projects"

Lab Activity

You are asked to design a short animation on Proteus using a GLCD. You are free to design your own animation. For inspiration, you can check the following projects implemented in previous years:

https://www.youtube.com/watch?v=d1hXW5To2N8&t=631s

https://www.youtube.com/watch?v=Fyimz_CfW3Q&t=77s

https://www.youtube.com/watch?v=iKEAtKSjdz8&t=14s

These projects were implemented in four weeks. Since you have only one week, you need to design a light and simple animation. Maybe, you can consider, the sun rises up from the left side of the GLCD and following a half-circle path and finally sets down on the right side of the GLCD. After the sun sets, the moon starts to appear from the left side and follows the same path to reach the right side of the GLCD. Then, this process repeats itself continuously.

At the top, you may add a clock that changes by the movement of the sun and moon. In this lab, we let you use your imagination to create your own movie different than explained above.

In your animation, you should use interrupts to model "forward, backward, pause, stop, play" buttons.

Before animation starts, you should show your name/surname, student ID and your animation’s name at the beginning.

Hints: Bonus points will be given upon the complexity, originality and quantity of the animation.