

CET4805 online distance learning class plan

By Prof. Wang March 15, 2020 (Spring 2020)

There are many FPGA boards available for FPGAs project. Since the class is changed to online class, I would like to suggest you and your team member purchase Intel/Altera FPGA board by your own. The FPGA board that you purchase for this class also can be considered to sale to the students to reuse in next semester. Anyway, we will move to upper level FPGA design and remove Cyclone II device in near future. The software has been updated in the entire class. We are well preparing the updated software in past few weeks (upgrade to Quartus 13.0sp1 already) .

1. FPGA Hardware recommendation for distance learning:

Intel/Altera Cyclone IV FPGA Development System (\$50-\$60)

Purchase Link: https://www.tindie.com/products/Earth_People_Technology/intelaltera-cyclone-iv-fpga-development-system/

Purchase Link: https://www.amazon.com/gp/offer-listing/B0188D4ENO/ref=dp_olp_new_mbc?ie=UTF8&condition=new

More on that choice in this link: <https://www.earthpeopletechnology.com/products-page-2/modules/dueprologic>

None of them is an ideal choice. The good one is very expensive. These choices are affordable for students to study FPGA with VHDL programming.

The switches are just inputs, the LEDs and 7-Segments are just outputs. As long as the GPIOs are available, the FPGA board is ok to do the experiment and different kinds of projects. Students are required to prepare breadboards, jumpers, switches, resistors, Leds, 7-segments, servo or DC motors, ultrasonic, LCD, the similar electronics components preparation to using the Arduino board. I am confident that the graduating students can work on the circuits.

2. Software recommendation - Quartus 13.0sp1

Quartus is used for programming, so students will be familiar with the software environment. It comes with a lot of resources, land, and projects.

Quartus 13.0sp1 installation instruction has been posted on openlab. Many students have been installed this software at your Laptop. The instruction to download and install can be found at the link:

<https://openlab.citytech.cuny.edu/wang-cet4805/quartus-ii-design-sotware-installation/>

3. Class meeting will resume on March 19,2020. Our class will meet on Blackboard

We will use Blackboard online teaching at the rest of semester. Please make sure your computer is working (with audio minimum). If you can have webcam to share your project demo, it is even better.

Study how to use Blackboard Ultra Collaboration and login to the session by the time we have a class meeting. The attendance will be checked from Blackboard meeting (you join to the virtual classroom).

The online class training material can be found:

<http://websupport1.citytech.cuny.edu/studentbb.html>

4. Others

My Openlab website (CET 4805) will be continued to use. We will follow the syllabus to run our online distance learning. You can find more help information for this class from CET4805 website, same as before, I will post the assignment, instruction, and grade at CUNY Blackboard.

We work and connect together for the class. Wish every student continue to be successful.

Best,
Prof. Wang