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Computer Systems Design Laboratory

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CSC 34300 – 1XY: Computer Systems Design Laboratory

Office Hours: Tuesday & Thursday 6:00pm – 9:20pm

Office Location: Baskervill 106

Prof. Alex Meng

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- ❖ **Description:** Introduction to FPLD technology, logic synthesis, and rapid prototyping of digital systems using commercial CAD tools. Topics: Programmable Logic Technology. Sequential Design and Hierarchy. Synthesis of Digital Hardware using VHDL. State Machine Design, CPU Controller. A Simple Processor Design. Video Graphics Adapter (VGA) video display generation. Design PS/2 Keyboard interface. Design of PS/2 Mouse interface. Synthesis of a RISC processor as covered in CSc 34200. Students are required to prepare written reports and demonstrate their design.

- ❖ **Textbook: NO TEXTBOOK REQUIRED**

- ❖ **Recommended Resources:**
 - FPGA Prototyping by VHDL Examples: Xilinx Spartan-3 Version, *by Pong P. Chu*

- ❖ **Corequisites:** CSC 34200.

- ❖ **Software:** MIPS Simulator and VHDL Simulator

- ❖ **College Policies:**
 - **Disabilities:** The CUNY Policy on Disabilities will also be observed: In compliance with CCNY policy and equal access laws, appropriate accommodations are administered by the AccessAbility Center. Students who register with AccessAbility, and are entitled to specific accommodations, must request a letter from AccessAbility to present to the Professor that states what their accommodations are.

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