**Computer Architecture and Design Project**

**Part 6**

One-page report

Rajish Wagh Rjw0028@auburn.edu Bhavitha Ramaiahgari bzr0017@auburn.edu Bhargav Yelamanchili bzy0010@auburn.edu

I. What did I learn?

The project helped us understand the implementation and inner design of the CPU. The best thing we learnt was the variety of software used for simulating and implementing our project. We had selected the multi-cycle datapath and working on it required a lot of diligence. The design as well as troubleshooting the problems was a big challenge. This opened new doors of technology for us. Now we feel confident to go on a bigger level in the architecture design.

II. What would I do different next time?

The next time we will definitely implement the pipelining architecture. I think that will be a good challenge for all of us since it is completely different starting from the ISA design. I will also try to implement it on latest FPGA kits like Cyclone 4 or 5. This time we worked together as a team. All of us would like to work individually if we do the next project just because we are confident we can do it again.

III. My advice to the one who is going for this project

For someone who is going for this project, we would advise that he/she should try to complete each Part in time. Also that you should read all the parts before starting the first one. This will help you take the right decisions at the right time. As in the analogy, “You learn more by experience than what a teacher can teach you.” Same is with this project. You will learn more during troubleshooting than you can learn just by following the steps. So keep a good amount of time for troubleshooting and expect to have errors the first or second time you implement the project at every step. Be Patient.