

Addendum # 5

Guidelines to the Project Presentation

1. This is an 8 to 12 minutes presentation, which means that you should finish in no less than 8 minutes and spend no more than 12 minutes. Your points for the presentations will be deducted if you violate these limits. Your TA (or a students assigned to do so) will give you a "signal" at 8, 10 and 12 minutes, respectively.
2. All the group members **MUST** participate in the presentation. Ideally, each group member should spend almost equal time speaking.
3. Extensively use technical terms that are understood by your audience. This will help you convey more information in fewer words. For example, mention if your state machine is one-hot coded or binary coded, if you are using Mealy or Moore type state machines, if your registers have synchronous clear or asynchronous clear, etc.
4. At the end of the presentation, you will be asked at least 3 questions. The person asking the question (or the TA) will name the answerer. In case, that individual does not answer well enough, another group member should speak **AFTER** he/she has finished answering. In other words, don't jump in the middle while your project partner is answering, even if he or she is wrong.
5. The idea of these presentations is for you to practice presenting your work in a academic environment. Your objective should be to educate your audience and impress them with your work at the same time.
6. As a general tip, it is always best to script at least some important points of your talk and practice giving the talk at least once. Time your practice talk and make sure the group is well coordinated.

Presentation Segments

1. Introduction:

Greet the audience. Introduce yourself first and then your project partner(s) - name(s) and major(s)

2. Title of the project:

This idea of this segment is to introduce your project to the audience and motivate them for the same. Your objective is to present to them a "broader picture" so that they can understand what your design does and it's significance - if any! This segment should include:

One to two sentence explanation of what your project design is

Background and/or possible applications for this design in the real world

Why you chose this project

3. Overview of the User Interface:

In this segment you will explain to the audience the user interface of your design, i.e., what are the significant inputs and outputs and their respective functions. A "layman" should be able to use your design after listening to your talk up to this point.

You should not spend more than 3 minutes in segments 1, 2 and 3.

4. Explanation of the state machine:

Now that the audience know what the design looks like, tell them about the underlying state machine. Point out only the significant states and state transitions. While one of the group members is going through the first three segments, another group member can draw a "simplified state machine" on the board. Your state machine explanation should be simple enough for people to understand completely in 2 to 3 minutes but it must cover all the significant steps. While preparing the talk you might find that it is most convenient to give the entire state machine, which is fine. Remember what Einstein said, "We should simplify things as much as possible, but not too much".

5. Block-level description of your implementation:

Give a block-level implementation of your implementation. Again, while the state diagram is being explained, one of the group members can draw this block level diagram on the board. This diagram is basically for your TA to understand how well you understood the design and how good your implementation was.

6. Test Methodology:

Testing and verification is one of the most important steps in digital design. In this segment you explain to the audience how you tested your design to verify that it works fine. If there were some "corner cases" that you tested, do mention them. You might skip this section if the design is too trivial to be systematically tested.

7. Conclusion and future work:

You have given your audience all the details about the WHY, WHAT and HOW of the design. Now it is time for you to put everything into perspective and, possibly, reiterate what you set out to achieve and indeed, have achieved through your implementation. Also, you might suggest some extensions and enhancements to this design that future EE 201L students can make. Note that these proposed enhancements should be simple enough for 201 students to implement in their semester-end projects. So, basically, in this segment you should:

- Explain your "design choices". For example, if you used micro-programmed control unit, explain why you did so.
- Some techniques and/or tricks you used that other students can use later on.
- Something you did/used which was not covered in any of the lab exercises. This could be a library component, a Logiblox cell or simply a method for simplifying your state machine.
- Some challenging problem you encountered and how you solved it.
- Some things you realized could have made your design simpler/more efficient but could not implement

Thank the audience and invite questions.