

**Dept. of Electrical and Computer Engineering  
The Ohio State University  
ECE 5557 Student Projects Proposal**

**Due: Start of 7<sup>th</sup> Week of Class**

To be turned in that day. You must type or write out the solutions to the problems below.

Also, you are to be prepared to discuss your solutions with the Instructor/TA in the laboratory that week.

You are strongly encouraged, however, to turn this in early and discuss it with the Instructor/TA early to establish your plan. The benefit of that for you is that when we “load balance” to try to make sure that there are not time-sharing problems with some of the plants, we will use a “first-come-first-served” policy.

**Requirements:**

- (1) **Propose what you will do for the “projects part” of the class (both the Project, and the Final Project). Be specific, and include:**
  - (i) which plants you want to work with (*no guarantees on what you will end up being able to work with as we have to do time-sharing with the plants*),
  - (ii) what control techniques you plan to study for each of the two projects, and
  - (iii) what challenges you expect to encounter and over come (*e.g., challenges with disturbance rejection, uncertainty, stability, modeling, etc.*).
  
- (2) **Write out a schedule for your proposed projects, including deadlines for when you will complete various aspects of your projects.** Whenever possible define pre-labs, procedures, and post-lab exercises in the style that you have seen so far in the laboratory (this simply amounts to good experimental practice). Clearly, it may be difficult to define specific exercises, but you should be able to broadly say what you will do (*e.g., say that you will study the theory of adaptive control and simulate an adaptive controller for the plant model before you come into the laboratory*). Your schedule should be developed so that you can finish each project on time per the syllabus, including finishing the Final Project by the last day of class (no deadlines beyond that point).