ENGR 121    Homework 16

Note: This is a group assignment.

The next class will be devoted to presentations summarizing your fishtank projects. Please dress professionally for the presentations. The minimum dress code is slacks with collared shirt (tucked in) for men and slacks or skirt with blouse for women. Blue jeans, t-shirts and caps are not appropriate.

You won’t have time to present all the details of your work. The types of things that should be presented are listed below – you are not required to present all of the things below, and you can change up the order to suit your preferences. While it’s good to talk about your computer program, don’t get too bogged down in the gory details.

- Seven minute presentations where all group members participate
- System overview
- Salinity control system
  - Overview of operation (pictures)
  - Description of system components (pictures, specs, and cost)
  - Circuit diagram and explanation (power supply, transistor, relay, interface to Arduino)
  - Calibration of conductivity sensor, equation
  - Programming and control
  - Reliability issues
- Temperature control system
  - Overview of operation (pictures)
  - Thermistor
    - Picture and operation
    - Calibration steps and equation
  - Description of heater (specs)
  - Circuit diagram and explanation (power supply, transistor, relay, interface to Arduino)
  - Programming and control
  - Reliability issues
- Overall system operation
- Discussion of what worked well and what could be improved

Project scores will be based on system performance and on the quality of the technical presentation. Please turn in a hard copy of your slides to your instructor (printed with two slides per page is OK). Please remember that no sharing of electronic material between teams is allowed.