

ELG3336

Introduction to the Lab and Project

General Guidelines

Important

- You should communicate directly with your TA. By the end of first week you will know your TA.
- Your TA is the person you will be working with in labs and project.
- You may meet your TA in case of need.
- The TA should be available during the lab sessions and ready to support you.

Lab Sequence

- We may have a maximum of two weeks to complete one experiment. However, if all students complete the experiment during the first week, we may move to the next experiment in the following week.
- We may possibly take a break after completing two experiments, which will be devoted to project proposal discussion.

Group Formation

- Lab/Project Groups
 - 3 persons per group, group members to be chosen by the group itself
- Students are required to form a group of 3 students. They will do all the labs together as a group.
- Each group will be working under the supervision of a TA.
- Form and submit your group members' names during the first lab.
- The same group will be your project group.
- The same TA will supervise your project.

Lab. Score Distribution

- Lab score is out of 10 (10% of the course).
- There are 3 labs to during this semester.
- The score 10 on each lab is distributed as per the following:
 - Prelab (3) + Participation (3) + Report (4) = 10

Prelab

- You have to do simulation works of the lab experiment before you actually do the experiment in actual circuits.
- Multisim software package is used for simulations.
 - Multisim is available in all computers at EECS laboratories.
- It is your responsibility to do the pre-lab completely before you start the experiment. You have to learn Multisim if you have not done so yet.
- Multisim is a very useful simulation program. It helps realizing the actual experiment.

Prelab

- **“No prelab, no participation policy.”** So, you are NOT allowed to participate in the experiment part unless your prelab is submitted before the start of the lab.
- If your prelab is done completely and correctly you may expect a good score on the prelab (on a scale of 3).
- **NOTE: Prelab needs to be submitted individually (i.e. per student) to your corresponding TA.**
- Prelab score is given per student.

Participation

- We have a score of 3 on the lab participation part. This means the completion of the experiment correctly and on time. It is a group score.
- Participation requires two things.
 - You have submitted the prelab **individually**.
 - You are present in the lab session.
- Participation score is given per group.

Lab Report

- We have a score of 4 on lab report.
- Lab report needs to be submitted per group, to your corresponding TA.
- A standard lab report has the following sections
 - Objectives
 - Introduction (some concepts as per needs)
 - Parts/components used
 - Experimental data
 - Critical analysis of the data
 - Summary and conclusions
- Procedure section is not required in the report.

Lab Report

- The lab report is due on or before you start the next lab. For example, your group can submit Lab Report-1 on or before you start Lab-2, and so on.
- Lab reports need to be submitted to your corresponding TA. So, know your TA's name and email address.
- Lab reports need to be submitted in hard copies unless there arises extra-ordinary circumstances where electronic version may be accepted.

Projects

- Each group is required to work on a project as part of the course requirement.
- Mark: 20% with Bonus for excellent projects.
- Think about a mechatronic project and you may talk about your project ideas with your TA and/or professor.
- Very Important: The project **MUST** contain a good balance of “mechanical” and “electrical/electronic” parts.
- Some examples of good projects from previous years can be found at g9toengineering.com.

Project Proposal

- In the project proposal you need to provide
 - The title of the project
 - Idea and motivation
 - Explanation of how you will implement the idea
 - Any circuit diagram, mechanical drawing etc.
 - Parts that you will probably need

Journaling Project Progress

- Each week after starting the project, a project progress report needs to be documented.
- A template for reporting the project progress will be provided.
- This will be your project progress report file. Each week you will add more materials to the same file and then you will send the updated file to your TA.

Journaling Project Progress

- In the project progress report you will provide
 - Progress that you made last week
 - Tasks you are planning to do this week
 - Anything you think important to include
- Note that weekly project progress report entails a mark. So, reporting your progress is very important. At the same time, good progress leads to successful completion of the project.