Cornell ECE MEng Design Project Report Details

DECEMBER 2021 Submission

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Design Project Submission / Approval Deadline is

Monday December 20, 2021 at 12:00pm

(12:00pm = Noon, Local Ithaca time)

The Deadline is the LAST DAY for _both_ Student Submission and Advisor Approval

ECE MEng Design Project Report Submission – DECEMBER 2021

Design Project Report - Required Online Submission

In order to graduate and complete your MEng Degree Requirements, you will need to submit a written Design Project Report. The Report will be submitted via an ECE specific online system; no hard copy materials will be required.

Design Project Report – Formatting

The Design Project Report is a documentation of the design experience process. Although Design Projects vary depending on the problem addressed, certain steps form the basis of every Design Project.

1. **REQUIRED! Summarize your accomplishments in a one-page Executive Summary.** Extract the critical accomplishments and problems from the body of your report. ***This should be placed immediately following your Abstract page.***

2. **State your design problem and your system of requirements clearly.** You will also want to mention any special constraints within which you had to work and how you arrived at defining your design task. You should mention how your system requirements evolved, if they did, over the course of the year. Review of previous work occurs here *or* in Section 3. A summary in the form of bullet points of the main design specifications would be very good at the end of this section.

3. **Briefly describe the range of solutions** that could have been used to solve your problem or create your system. Elaborate on the approach you selected and describe why your choice was the best of all the alternatives. If you have a different opinion about the best solution to your problem at the end of your work, include brief comments as well as a more thorough explanation in the conclusion.

4. **Thoroughly document your design and its implementation.** You may wish to note any major or unexpected design decisions that needed to be made along the way to your final result. Present large-scale schematics or simulation results in an appendix. Include explanations of any modifications or discoveries that you made or needed to make during the debugging process.

5. **Compare your system test results to your original projections or expectations** of system behavior.   Each design requires some form of verification, be it a hardware test or a software system simulation. Include in your report such evidence as is necessary to demonstrate the functional capabilities of your efforts. Appendices often work better than including massive amounts of data or program text.

6. **A user's manual for a software product** should be included as an appendix.

7. **Turn in your laboratory/design notebook** to your Project Advisor if requested. You may include this in your online submission.
8. Typical Design Project Reports constitute 15 - 20 pages, per 3 - 4 credit hours, exclusive of appendices.

Cover/Title Page

For the Cover/Title Page formatting of your Design Project Report, see the example provided below.

Sample MEng Design Project Report Title/Cover Page

(At top of page and all capitals)

COMPLETE TITLE OF YOUR DESIGN PROJECT REPORT

(Center these five lines form top to bottom and from left to right)

A Design Project Report

Presented to the School of Electrical and Computer Engineering of Cornell University

in Partial Fulfillment of the Requirements for the Degree of

Master of Engineering, Electrical and Computer Engineering

(At bottom of page; bottom margin same as top)

Submitted by

Your Complete Name

MEng Field Advisor: Your MEng Field Advisor's Name

MEng Outside Advisor: Your MEng Outside Advisor's Name *(if applicable)*

Degree Date: May, August, or January 20XX

Abstract Page

For the Abstract formatting of your Design Project Report, see the example provided below.

Sample MEng Design Project Report Abstract Page

Abstract

Master of Engineering Program

School of Electrical and Computer Engineering

Cornell University

Design Project Report

Project Title:

Author:

Abstract:

Joint Design Project Reports and Submitting your MEng Design Project Report

College MEng Design Project rules requires a project under continuous faculty supervision with individual effort on the part of students. If you are working with several other students on a design project collaboratively, you may submit a joint Design Project Report. The report must document **each person's** contribution to the design experience and **_must reflect your individual contribution_** – even in a team project.

You may request to combine your individual reports into one document with a common introduction and conclusion. This will need to be approved **beforehand** by your Design Project Advisor. Only with your Design Project Advisor's approval can a joint report can be written.

A separate and detailed description of each author's individual contribution must be included after the Abstract page in Design Project Report.

Your contribution to the Design Project must directly comprise every aspect of the design experience, from start to final testing as in items 1 -4 listed on Page One of this document. To meet the conditions of a complete engineering design experience your contribution to the project must include all of the following:

- A problem to be solved
- A review of possible options for solution
- What formulates the 'best' solution
- Documentation of design implementation and
- Testing of the final results with regard to the original specifications

You cannot merely work in a team of two or more people on a common set of tasks. **_Individual work, and complete documentation of your effort, are still required and must be documented - even in a joint report!_**

Again, Design Project Reports with multiple students will be submitted by only one (1) designated student **on behalf of the entire group**. The student who handles the submission will be required to specify the **Net IDs of the each of the other students**.

Please note that this is **very important**, so that all participating students will be recorded and graded accordingly.

Online Submission of your Design Project Report

Online Design Project submission form - https://eforms.ece.cornell.edu/mengproject

- Finalized online submission of all materials will include copies of each of the following:
    o **Design Project Report**
    o **PDF Version of your Poster from the ECE MEng Poster Session**
    o **.Zip File of your Source Code** (if applicable)

- MEng Design Project submission is electronic; *there is no hard copy paper version submission required.*

- Since your report submission will require electronic approval by your Design Project Advisor, it is suggested that you should submit your Design Report *at least 48 hours prior to the finalized deadline date*, in order to provide ample time for approval.

- Final due date for **BOTH** Student Submission of and MEng Advisor Approval (this means online approval by your Design Project Advisor) Design Project is **Monday December 20, 2021 at 12:00pm (noon, local Ithaca time).**

Online Submission Instructions

- The Student is required to upload of the Design Project Report as well as supporting files and Poster (as listed above). The Slide (jpg) is *optional*; You may leave this blank and not upload anything.

- All items to be uploaded *must* be in a **PDF format**.

- There will be fields in the online submission form for you to provide the following details:
    o Design Project Title
    o Abstract
    o Keywords
    o Executive Summary

- All fields must be populated with the correct designated data; otherwise the form will not allow for submission.

- Design Project Reports that involve multiple students will be submitted by only one (1) student, and will be submitted one (1) time only on behalf of the group.
    o The student who is responsible for submission of the Design Project Report for the group will be required to specifically include the Net IDs of each of the other students involved. Please note again that is *VERY IMPORTANT*, so that all students participating will be both noted and graded accordingly.

- We strongly suggest that you **ONLY USE Google Chrome** as your web browser when you submit your Design Project Report online. In general, **Google Chrome** has proven to have few, if any, issues for online submission.

Things You Should Be Aware of Concerning Your Design Project Advisor

- The content of your Design Project Report **must be reviewed** in a <u>Draft Format </u>by your Design Project Advisor **prior to submission**.
    - You should be providing your Design Project Advisor with a **DRAFT VERSION** of your Design Project Report in advance at least **TWO (2) WEEKS IN ADVANCE** of the deadline to allow for sufficient time for review. ==**The suggested date for this is Monday December 6, 2021**==.
    - You should discuss this first in advance with your Design Project Advisor in order to determine what an appropriate timeline for this should be for him/her.
    - Be sure to inquire what format the draft should be submitted as (hard copy, PDF, etc…)

- If you have **both** an ECE MEng Field Advisor **and** an MEng Outside Advisor:
    - Your ECE MEng Field Advisor will be **the only one** who receives the automated email after you successfully submit your Design Project report online.
    - Your ECE MEng Field Advisor is the one who must approve the submission of your Design Project Report.
    - Nothing will be sent to your MEng Outside Advisor, as they are not your Advisor of Record.
    - Be sure that your MEng Outside Advisor contacts your ECE MEng Field Advisor to let him/her know if your finalized Design Project Report has been approved or not ahead of time.

- Make certain to check what your Design Project Advisor's schedule will be regarding the following:
    - Proofing the draft of your Design Project Report
    - Submitting the required online approval of your Design Project Report
    - Allowing sufficient time for his/her ability to submit their approval online

- You will have to work around your Design Project Advisor's schedule!! There will not be any flexibility made if you come on the day of the deadline saying, "My Advisor is out of town and cannot approve my report!" ***So plan accordingly and work out a schedule with your Design Project Advisor beforehand.***

- **REMEMBER –** The version of your Design Project Report that you submit online should be the **FINALIZED** version that will **NOT** require any additional edits or revisions.
    - In other words, when your Design Project Advisor logs in to approve your Design Project Report, it should <u>**NOT**</u> be the first time he/she is seeing.