

A term project shall be done in lieu of a final exam. Teams shall be of 3. **Team requirement: min of 1 MS and 1 BS student/team.** The objective is to actively figure out and explain the underlying concepts, key relationships and equations, and then design, develop, implement, test, and document the engineering details. Goal of report: a tutorial to document technical background, get another engineer up to speed on what you have done, explain the implementation, and present the results.

The project you choose:

- must be of topical interest,
- must relate to course material of EE5223.
- must demonstrate level of mastery and application of the related concepts and theories, at the level of the EE5223 course.
- includes a detailed literature search (applications magazines, standards, and journal papers) and Reference List, with salient concepts summarized in Background section of report. You'll also need to do a technical review of the journal paper that is most related to their project.
- length of body of report: approximately 10 pages of text (not including figures, tables, equations, or appendices).

Time line and required submissions are as follows. All deliverables contribute to the grade of your term project. Approximate schedule is:

- Week 6 (Friday): submit short e-mail with idea(s) requesting instructor feedback. *
- Week 7 (Friday): submit formal outline of project and list of key references.
- Week 9: submit updated outline of project and complete reference list. *
- Week 12: Submit rough draft of project report including a working initial model/system. *
- Week 14: Submit final report/deliverable.
- Finals week: be prepared to present/demonstrate project. * Major milestones

Report Outline/Table of Contents (copy and paste this to start your Table of Contents):

- Title Page - Include project title, course name, authors' names, revision date
- Executive Summary (not needed for initial draft)
- Table of Contents (use as "working outline")
- Statement of contributions by each team member, signed in agreement by all.
- Introduction (brief overview of project: problem area, motivation, overview of project)
- Background
 - literature search, most important references
 - Presentation of key concepts connected with project
 - Identification of existing voids or weaknesses, and resulting opportunity
- Proposed Approach and Application
 - Overview of basic idea that you will develop and implement
 - Development and implementation details
- Implementation (may not be complete in draft versions)
- Results and Performance (in earlier draft reports, this can be the Expected Results)
- Conclusion
- Recommendations for Continued Work
- Reference List (IEEE format, numbered [1], [2], etc, in order of first author's last name)
- Appendices as required to document details. Include journal paper & review as one appendix.

Page layout:

- Font: 11-pt CG Times w/1.25-1.5 line spacing; or 10-pt comic or ariel w/1.0-1.25 line space
- Page layout: 1" margins, include page numbering