**EE215 project guideline**

The project involves doing some additional reading and programming on engineering problem of your choice. Your results should be written in a paper format.

# **Project topic proposal**

You can choose any computational problem that you find of interest, preferably one from engineering. Prepare a page proposal that concisely states the problem you want to work on, why it is important or significant (give 2-4 references), and which mathematical models and Matlab functions or capabilities you expect to use.

# **Project format**

1. Title
2. Abstract – Summarize what you did and key results in a couple paragraphs.
3. Introduction – Concisely describe your problem and how it relates to material we discussed in class. Also include applications of your problem to engineering (with at least 3 references to textbooks, technical manuals, or journal articles); if you can't find engineering applications, then provide applications to science or math areas.
4. Methods – Describe the algorithms you used to solve the problem (and why you chose them). Include (and justify) any simplifying approximations or assumptions you made in solving the problem. Describe any special difficulties that came up when programming the solution and how you overcame them.
5. Results – Include graphics that clearly show your main findings and codes.
6. Conclusions – Summarize how your work solves the problem given and how it might be useful in applications. Comment on possible extensions and improvements.
7. Bibliography – List alphabetically all references cited, using a standard format such as

IEEE's. References should be to technical literature, not to popular media or Wikipedia.

1. Appendices, including your computer code.

All material taken from other sources needs to be properly cited.

# **Project submission**

## The due dates for the project components are

## (for your references, you may follow your own schedule)

**4/11/2020-------------------Title and abstract (You may change title later if you want)**

4/18/2020-------------------- Introduction and methods

5/9/2020--------------------Final project due