EE253, Spring 2014 Prof. Essam Marouf
DSP

Term Project
Due Monday 5/12/2014 (Last Lecture)

The structured term project is composed of a set of three Matlab "mini-projects" similar to the Matlab problems included at the end of each homework problem set but larger in scope. Parts 1 and 2 are already posted on the class website. Part 3 will be posted sometime after the Spring Break.

The three mini-projects are guided Matlab problems that address DSP applications or extensions of the material covered in the course. The problems are taken from *Computer Explorations in Signals and Systems Using Matlab*, 2nd Ed., Buck et al., Prentice-Hall, 2002. Any m-files or data files mentioned in a project can be found in the zipped file 'buck.zip' posted on the class website. Download and 'unzip' the file.

YOU MUST COMPLETE ALL THREE MINI-PROJECTS. You may work alone, if you wish. You may also team up with *at most one* classmate to complete the project. Working with a classmate is good for trading ideas and for sharing program debugging. Results of your work should be documented in a coherent final report to be submitted by Monday 5/12/2014 (the last day of instruction). No late reports are accepted.

Your report must give a brief summary of the main ideas behind a given project, give answers to all questions completed, documented plots of the results, comments on the results, and summary of what has been learned from doing a particular project. Commented Matlab programs should be appended at the end of each project. A repot that just lists answers to individual questions earns less credit than one coherently structured as stated above. Short reports are perfectly fine as long as they address the points above.

A CD that includes a soft copy of the report and all (documented) Matlab code developed should be attached to your final report. A team of two should submit a single report with both names listed. On the first page state how the work was divided between the two partners. Poorly written and documented report can result in a poor grade. Reports are graded relative to one another.

Copied reports or programs are not acceptable and could have severe consequences, as Honor Code on the Greensheet stated. Each team of two persons must work independently from other teams. If you do copy from any sources on the web or otherwise, you may not pass EE253 and could be reported to the University for honor code violation and further action. Please work on your own and report only on work you completed yourself or in collaboration with your project partner.

You can also pursue *a project of your own choice*, if you wish. It could be software or hardware oriented, but should address a DSP topic relevant to the subject matter of EE253.You need to submit as soon as you can a one page proposal that includes detailed outline of the tasks you plan to perform. A good source of project ideas is Applications Notes published by various DSP vendors (e.g., Texas Instruments, Analog Devices, Motorola, …), usually downloadable from their websites. The scope of your proposed project must be comparable to the proposed structured Project above. The deadline for submitting your own proposal is the Wednesday after Spring Break (April 2, 14).