ECE 251C
PROJECT

The project work in this class requires the study of multirate processing, filterbanks and wavelets, and their applications. Of particular interest are extension such as non-maximally decimated filter banks, or applications of techniques discussed in class such as in subband coding (audio or image), subband adaptive filters, equalizer design, etc. Students, working in groups of two, are required to pick a topic, and study it in depth. This involves understanding the application and the signal processing issues involved, the techniques used, and their effectiveness. An independent verification of the results is also desirable. As part of the project, groups will be required to make a presentation of their findings, and submit a written report.

Schedule:

1. A proposal for the project is due no later than the sixth week of classes (Nov. 5th). The proposal should include the topic to be studied, and some relevant references. Early submission of the proposal is encouraged.

2. Project presentations will be held during the day of the final exam. Due to class size, to accommodate all groups, presentations on additional days will be scheduled.

3. The Final report is due on the day of the final exam.

Examples of Projects: Subband (Audio and image) compression, Image Denoising, Subband filtering, Wideband modem design, feature extraction for pattern recognition, biomedical applications, computer graphics, Applications to wideband array processing etc. .