

EE 610 Project
Proposal due October 16, 2000
Project Report due December 4, 2000

The purpose of this project is to perform basic research on an error control system, encoding, or decoding algorithm that relates back to topics covered in this class. Possible topics could include comparing the performance of different systems, analyzing bounds of system performance, or codes related to but not covered in class. A longer list of possible topics are found at the bottom of this page. The project should include analytical or simulation results. The project will include a written report that is at a level understandable by your fellow classmates. The length of the report is not specified, but must be long enough to provide an adequate description of the project and present results. Your grade will be determined by your choice of topic, results, written report, and oral presentation. The oral presentations will be “conference length” of 15-20 minutes and will be given during the last week of November.

Possible topics:

- Block turbo codes
- Turbo-coded modulation systems
- SOVA decoding
- Error bounds for turbo codes
- Interleavers for turbo codes
- Serial concatenated convolutional codes
- Concatenated codes
- Multidimensional TCM
- Punctured codes
- Tail biting codes
- Trellis decoding of block codes