

**Course Project**

- Each student is required to submit an individual course project, consisting of a written report and an oral presentation, describing a detailed examination of a signal compression topic.
- The project report will be at least 10 pages in length.
- The project may consist of a theoretical analysis of a topic, an implementation of an algorithm, a performance comparison compiled from the literature, or an implementation of a signal compression method for a real source.
- A final oral presentation in class of 15 minutes in length is also required.
- **The written report and the final presentation are due on 03/11/08 in class.**
- A representative list of topics is given below.
- Each student must have a different topic.
- **Each student will submit a written statement of their proposed topic to Dr. Gibson on 1/29**

**Possible Topics:**

Scalar quantizer performance comparisons or implementations

Vector quantizer performance comparisons or implementations

Huffman coding

Arithmetic coding

Lempel-Ziv coding

Optimal bit allocation

Coding of Gauss-markov sources

Embedded quantization

Coding of speech, audio, still images, or video

This list is not exhaustive. If you prefer another topic, please ask me outside of class.