

Project Guidelines

Purpose: The purpose of the project is to allow the student to investigate some aspect of the standards, or one of the standards, in more detail, and to provide a virtual laboratory experience by encouraging the student to experiment with one or more of the standards.

Scope: The project deliverable will consist of a report that documents the reading and experiments conducted and relevant conclusions from the work. The report should be no less than 10 pages and no more than 20 pages long. It should not contain material that is unessential to describe what was done to a sophisticated reader (one of the other students in the course). It is expected that the project will involve minimal coding of algorithms but will include results from simulations of the standards obtained using available implementations of the standards, or perhaps, available coded samples from the web.

The starting point for the project should be some question of interest relevant to the components of the standard or to the performance of the standard in certain physical environments. For example, (1) how critical is the perceptual weighting in certain speech coding standards, or (2) how sensitive is the standard to particular parameters, or (3) how sensitive is a certain standard to bit errors or packet losses, or (4) should error concealment be used in certain applications? Any such question in the same spirit is a possible topic.

Procedure: Each student will complete a project, and there will be no teams. A one page proposal for the project topic with a short abstract and tentative references should be submitted via hardcopy to Dr. Gibson on Friday, January 24th. Your e-mail address should be included on the one page proposal to allow notification of acceptance and questions. Topics will be approved by January 31st. The projects will be due on the next-to-last class day (March 7th). This allows time for the projects to be read and for the selection of some projects to be presented to the class as a whole on March 14th. All students should prepare a maximum of 8 slides that describe the project and the results, and these slides should be submitted on March 7th along with the project report.

Grading: Each project will be given a numerical score between 0 and 100 that will constitute 20% of the course grade in lieu of the laboratory.