DESC9115 2011 LAB REPORT 2
DIGITAL AUDIO SYSTEMS
Instructor: William L. Martens
Tutor: Luis A. Miranda J.
Date distributed: Tuesday, 04 May
Date due: Monday, 30 May (the deliverable is due at noon)

Note: This written assignment is worth 20% of the student assessment for this UNIT OF STUDY.

General Objective:
The objective of this assignment (which again is a report on work to be accomplished using Matlab) is to encourage students to make an in-depth exploration of their chosen topic (about which they submitted their first Lab Report). This practical lab work is to be regarded as the student’s final project for this unit of study, and results achieved with the digital audio system that students develop in Matlab for this second Lab Report will serve as the foundation for a more descriptive review related digital audio signal processing technology (about which an second written assignment is to be submitted at the end of the term).

Deliverable:
There are two deliverables for this lab report: a self-documenting Matlab function and a manual page (or ‘help’ page) that gives a detailed explanation of how to use the function (With enough detail that a new user should be able to use the function without difficulty).

The Matlab function that is submitted can be based upon found code, or code taken from a third party, but should be developed into a new and unique functionality that extends that which is taken from elsewhere. The satisfactory function will also respond to a command-line query of the following form:

'help your_function’

Thus the usage statement should be generated just as it is for other working functions that are used to process sound inputs by specifying the meaning and range of values appropriate to the function parameter settings, and how to apply it in practice (i.e. by processing a digital audio file). Please include a reference to related work in the usage statement if this is appropriate.

Please take pride in your work, and consider this as a challenge to produce a Matlab function that others will likely find useful and easily applied, since the functions developed this term may be placed online for posterity (perhaps to be used in subsequent terms).