**EE 445S Real-Time Digital Signal Processing Laboratory – Prof. Brian L. Evans**

**Lab 1 Instructions**

**1.  Talk-through using winDSK**

Connect your DSP board with the PC through the serial cable.

Switch on S2-1 (the first one in the left group of switches), keep all the others off. Reset the board.

Run winDSK8  on the PC, and then follow pages 16-19 in the real-time DSP book. Note instead of music player and headphone, we use stereo codecs, signal generator and oscilloscope. (Connect the line-in port on the board with the signal generator, the line-out port with the oscilloscope)

**2.  DSK implementation in C.**

Please follow the instruction in “<http://rt-dsp.com/2nd_ed/app_a/App_CCS_5_1_omapl138.pdf>” for the detailed steps to create a talk-through project.

* ***Please create a folder on the C:\ drive, i.e. C:\myfolder, and use it as your default workspace. Do not use C:\CD as your workspace.***
* ***All the necessary codes are provided to you in “C:\CD\code”. Please refer to pg. 27-28 in the textbook for the explanation of the codes.***
* ***Note that the workspace of CCS can only be in the C: drive.***
* ***Please make sure all DIP switches(two packages of eight switches, each) on the board are in the “OFF” position.***

Once you’ve finished the last step and have clicked “run”, you will be able to see the result of this talk-through project. Connect the line-in port on the board with the signal generator, the line-out port with the oscilloscope, you will find the signal displayed correctly.

**3.  Other notices**

* ***The computer will erase any changes to the C:\ drive after logging off. Please backup your workspace directory to a flash drive and/or copy it to the Z:\ drive (your home directory). Losing files is not an acceptable excuse for not submitting assignments on time.***
* ***For future labs, simply copy your workspace directory from your flash drive back to the C:\ drive and create a new project as in Step 2.***