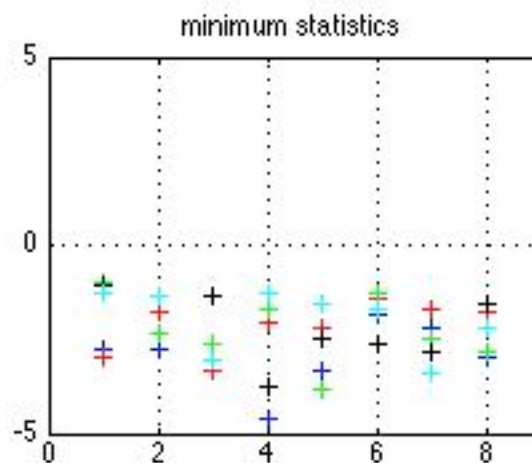


CE640 /OC599 – MATLAB
Class 1 Assignment
(due beginning of class, October 8)

The purpose of the first assignment is to force you to start an organization for your MATLAB work and to create your first few m-files. Note that you will create the directory structure below and do the work in your own computer workspace, not the classroom space.

Please do the following:

1. create a MATLAB directory in your home directory (on stak, not on the local machine)
2. create a sub-directory (in MATLAB) called matlabClass2013
3. create a sub-directory (in matlabClass2013) called week1
4. create m-files in matlabClass2013/week1 that:
 - 4a. compute the circumference and area for circles of radius of 1, 2, 8 and 20 inches. Do two subplots, one of radius versus circumference and the other of radius versus area. Label all axes, add a grid and print the plots. Name the m-file circleTest.m and include help lines describing the purpose of the m-file (such that typing 'help circleTest' returns something helpful).
 - 4b. create an 10 by 8 array of Gaussian random numbers with mean of zero and standard deviation of 1.50. Find and display the minimum, mean, standard deviation and maximum in each column. Do this five times and compare the results by plotting each result in a labeled subplot. You will need four subplots in a 2 by 2 array, each labeled and titled appropriately. An example sub-plot is below; you see the results for the 8 columns and, for each column, you see the results from the 5 trials all plotted with different symbols. Call the m-file randomNumbersExample.m and include help comments.



5. Turn in your m-files, suitably commented, and your plots. PLEASE zip (.zip or .gz, not .7z or other Windows-based compression) everything together in some clear fashion and upload ONLY A SINGLE FILE.

6. create a sub-directory (in matlabClass2013) called MatlabFunctions. This is a place for you to store any useful functions that I provide to you, or that you create (independent of those related to a particular assignment).

6a. create a startup.m file in your MATLAB directory that adds all your sub-directories to your path (keep it current). See the help menu for genpath. This will provide you access to all m-files from this class, regardless of what folder you are in!