### **College of Engineering and Computing**

# Department of Civil and Environmental Engineering

## CGN 2420 - Computer Tools for Engineers

# HOMEWORK 2:

**1.-** Solve the following problems from text Engineering with Excel, Third Edition, Ronald W. Larsen.

# Problems:

2.1, 2.2, 3.6, 3.10, 7.5

**2.-** The data given in file HW2\_Data.xls shows the **yield strength** for 50 different samples of the same material, measured in the lab.

a.- Determine mean value and standard deviation for this set of data.

b.- Create a histogram to show the frequency distribution of the yield strength value for this set of data. Use intervals (bins) of 1 kpsi, starting with 26.5 and finishing with 36.5 kpsi.

c.- Plot the cumulative frequency function corresponding with this histogram in the same plot, and determine the probability of finding the yield strength between 29 and 31 kpsi.

d.- Create a Pie graph showing the frequency density (%) corresponding with this histogram.

e.- If you would have to report the yield strength of this material what would be your answer?

#### All charts must be properly labeled.

Due date: Tuesday May 22, 2012

Please submit your Homework on time to the following gmail account: <u>cgn2420.section1@gmail.com</u> Use only ONE Excel file, with each problem in a different spreadsheet. Save the file with your NAME and LASTNAME. In addition print the homework and give it to your professor. Homework that has not been submitted in this way will not be graded.