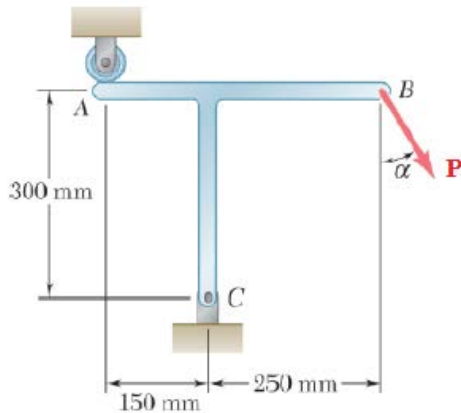**CVEN 221 Honors - Homework #11**

1) **For Problem 6,** Write a computer program to determine the reactions at A and C for the frame shown below. The inputs for the program should be the angle (α) measured positive counterclockwise from vertical and the load (P). Determine A and C for the following values of α and P:

   a. α = 45° and   P = 400 N
   b. α = -37° and   P = 250 N
   c. α = -87° and   P = 170 N
   d. α = 125° and   P = 375 N
   e. α = 37° and   P = 250 N

You may check your program by solving the problem given by McGraw-Hill Connect.

2) **Additional Problem,** The position of the L-shaped rod shown is controlled by a cable attached at B. Knowing that the rod supports a load of magnitude P = 50 lb, write a computer program that can be used to plot the tension T in the cable for values of Θ from 0 to 120 degrees using 10 degree increments. In addition, determine the maximum tension T and the corresponding value of Θ.