

ECEn 550 / ME 550, Fall 2008

Homework #5

Due Nov. 14, 5:00 pm

From the text Foundation of MEMS, do the following problems:

5.2, 5.3, 5.5, 5.15

6.1, 6.2, 6.4, 6.8

For problem 6.1, assume a gauge factor of 100.

For problem 6.2, the resistor assume that a thin resistor is doped along the entire length of the cantilever (rather than through the entire thickness).

For problem 6.8, assume a gauge factor of 71.4 and Young's modulus of 120 GPa.