Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student number\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Assignment 5**

Consider the cantilever on pages 7-10 of the lecture notes. Effective spring coefficients  and  of the cantilever are defined by  and , where  and  are the resultant force and torque acting at the free end and  and  the displacement and rotation at their point of action in the direction of the resultants. Use measured displacement-load data to find the experimental values of the spring coefficients.

***Experiment:***The set-up is located in Puumiehenkuja 5L (Konemiehentie side of the building). The hall is open during the office hours (9-12 and 13-16) on Wed 25.10.2023. Place a mass on the loading tray and record the readings of the displacement transducers 1 and 4 (2 and 3 are not needed). Gather enough data for finding the coefficients  and  reliably.