A. Briefly describe overall research program at your laboratory.

Our lab is currently performing research that seeks to use structural vibrations to identify parameters that describes the occupants gait. Gait can be considered as a vital sign and it changes as the health condition of people changes. The final objective of this research is to develop technology that will enable health professionals track gait parameters at home and identify health changes. The general idea of this research can be viewed at [https://youtu.be/d-PYeWCFltx](https://youtu.be/d-PYeWCFltx).

B. Briefly describe specific project(s) for your teacher:

The teacher will be helping the research team perform the data analysis of a large database of acceleration signals that the group has already collected. The teacher will learn about sensors and how floor vibrations are recorded as well as how to perform data analysis of floor vibration data. Strong interest in programming (preferably python) is a plus.

C. Will any other people (post docs, grad students, undergraduate students, colleagues, etc.) be involved directly with your teacher?

The teacher will be working side by side with a Ph.D. student

D. Will you require any advanced reading/preparation for the teacher? If yes, please briefly describe.

Knowledge of programming languages (preferably python) would be a plus.