

**Project:** Sustainable Transportation Architecture

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**School:** Graduate School of Arts and Sciences

**Role:** Faculty

**Description:** Improving Sustainable Transportation Infrastructure on the Medford Campus. We propose a project to address a serious problem on the Tufts Medford Campus: the challenges and barriers to walking. Walking is the most green of all modes of transportation and when walking infrastructure (namely sidewalks) are absent, people will use less sustainable means to travel about, like cars. New technology that combined visual sensors, machine learning, and artificial intelligence can improve the ability of campus planners here at Tufts to monitor and analyze pedestrian circulation on campus. This project will involve a pilot test by setting up such sensors at three locations between Talbot Avenue and Professors Row, where few formal sidewalks exist, to measure and examine the flow of pedestrian movement. The aim of this research will be to propose the development of new/revised sustainable transportation infrastructure across this corridor.

**Budget:** \$12,000. Covers the costs of the sensors and student/researcher time to monitor and analyze results.

**Timeline:** Stage 1: Install sensors (Winter 2019/2020); Stage 2: Collect and analyze data (Spring-Summer 2020); Stage 3: Synthesize findings, write report, make recommendations for sustainable infrastructure improvements (Fall 2020).

**People Involved:** Department of Urban and Environmental Policy and Planning, AS&E Campus Planning & Development Committee, Operations Division, and the Student Planning and Policy Association.

**Benefit to Tufts Community:** Would lay the groundwork for a major enhancement in sustainable transportation on campus, thereby reducing car use, carbon emissions, pollution, while encouraging walking and improved health for members of the Tufts community.