

DEPARTMENT OF CIVIL AND ARCHITECTURAL ENGINEERING AND CONSTRUCTION MANAGEMENT
COLLEGE OF ENGINEERING AND APPLIED SCIENCE

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE WOMEN

APPLICATION DEADLINE: 03/01/2018

PROJECT TITLE: Improving Energy Performance in Historic Buildings

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Project Description

The overall goal of this research program is to improve the energy performance of older and historic buildings, towards very low energy consumption targets. Within the population of existing buildings, historic buildings represent a particularly important and interesting subgroup. These buildings hold special societal significance, and the need to maintain their significance and avoid damage to historic building fabric imposes additional constraints on the already complex challenge of improving building energy performance.

The WISE student on this project will be assigned to a specific ongoing project within this broader area of work. Specific topics of focus may include building energy benchmarking and data analytics, hygrothermal analysis of building envelope (i.e., exterior wall and window) retrofits, and urban building energy modeling. Depending on student background and interest, the WISE student will be assigned to various aspects of the data collection and analysis within one of these focus topics. Students majoring in architectural engineering, mechanical engineering, civil engineering, environmental engineering, mathematics/statistics, or computer science would fit especially well into this research, but students in other majors will be considered.