Civil and Environmental Engineering to Civil, Environmental, and Architectural Engineering

WPI faculty meeting Oct. 7, 2021



Solar Decathlon Africa, 2019

A joint project with global implications



- --The faculty of the CEE department voted unanimously to change the name of the department in spring 2020
- -- This name is not unique; it is found at other universities, including:

University of Colorado in Boulder

University of Kansas

University of Miami

Illinois Institute of Technology,

Drexel University

University of Texas at Austin



- --The AREN program has been growing recently, with an undergraduate population comparable to EVE Including the subfield in the department name helps support the growth and the students in the program, and increases internal and external visibility of the field at WPI.
- -- Civil Engineering at WPI has been ranked #20 nationally by College Factual in 2021, and ranked #2 in Massachusetts for undergraduates.
- --Architectural Engineering will occupy renovated space in Kaven Hall, as well as a more research oriented Space in the New Academic Building

- Civil Engineering from the beginnings of WPI as an institution; ABET accredited since 1936
- The department must accredit all undergraduate programs, in Civil, Environmental, and Architectural Engineering and was referred to by this name during the ABET visit in 2020
- With the environmental movement in the 1970s, came a renaming of Civil Engineering departments to Civil and Environmental Engineering nationwide, WPI included.
- Now, we are at the cusp of major and pervasive effects of climate change, calling for both mitigation and adaptation
- 40% of global emissions from construction and operation of buildings; 80% of today's building stock still in use in 2040 – must retrofit
- Becoming Civil, Environmental and Architectural Engineering is, again, a response to both the prominence of the field in our department, but also to the need to clearly add Architectural Engineering as a crucial field for climate response.
- Climate solutions must include changes to the materials we use in buildings, to energy
 efficiency across lighting, heating/ventilation/cooling, electrification, and application of
 adaptive and smartworld building operational systems with constant optimization for carbon
 neutrality after construction.