## Civil and Environmental Engineering Department Overview



#### **CEE Mission**

- Create infrastructure for a sustainable, livable, and equitable world
  - Sustainable, resilient, infrastructure
  - Clean water and air for all
- Achieved through
  - Innovation in civil and environmental engineering education and research
  - Impact of our alumni in our core research areas
  - A collegial, collaborative and welcoming environment in which to learn and work

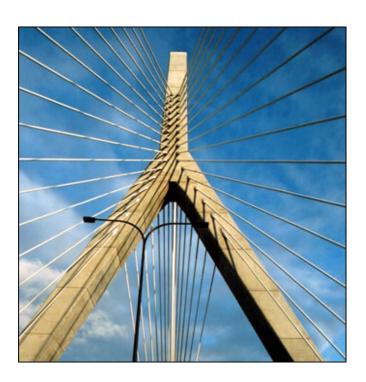




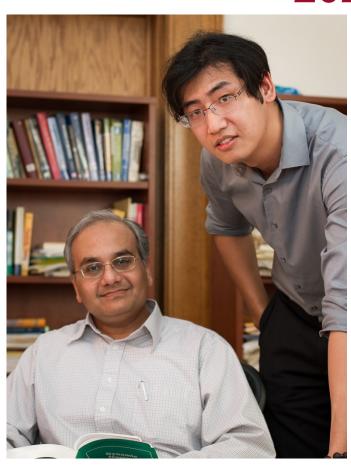


### **CEE Values**

- Our People are our Core Strength
- Respect for All
- Collegiality
- Integrity
- Excellence
- Innovation
- Interdisciplinarity
- Community Engagement
- Continuous Improvement



## CEE Faculty/Gradaute Student Statistics 2020-21



- 23 Faculty Members
- 69 PhD Students (FTE)
- 110 MS Students (FTE)
- 47% Female Grad Students

# CEE: an International Graduate Program

- Brazil
- Chile
- China
- Colombia
- Germany
- Honduras
- India
- Iran

- Israel
- Jamaica
- Mexico
- Nepal
- Nigeria
- Peru
- Portugal
- Saudi Arabia

- Singapore
- South Korea
- Taiwan
- Thailand
- Trinidad and Tobego
- Turkey
- USA

## What Makes CEE@CMU Unique?

- Focus in emerging areas for the field unique compared to more traditional departments
- Innovative, flexible graduate programs
  - Advanced Infrastructure Systems (AIS)
  - Environmental Engineering, Sustainability, and Science (EESS)
  - Mechanics, Materials and Computing (MMC)
- Interdisciplinarity in education and research
  - Cross-listed courses; 6 faculty joint appts (EPP, Arch, Heinz);
    collaborative research

## US News & World Report 2021 Graduate Program Rankings



8 - Environmental Engineering

10 - Civil Engineering

4 - College of Engineering

#### **Graduate Focus Areas and Concentrations**

#### AIS

- Smart Structures
- Smart Facilities and Infrastructure Systems
- Smart Transportation /Mobility

#### • EESS

- Climate Change Adaptation (CERCA)
- Air Quality Engineering and Science (CACES)
- Sustainable Water/Remediation
- Environmental Decision Support

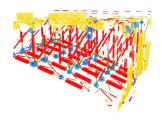
#### MMC

- Mechanics, Data Science, and Materials
- Mechanics, Structures, and Materials

#### Cross-Cutting Programs

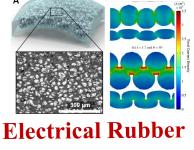
- Civil and Environmental Engineering Data Analytics
- Energy Infrastructure Systems
- Civil and Environmental Systems Engineering
- Materials for Environmental Systems











Wind-farm Structural Integrity with Robotic Inspections