CEAE Executive Advisory Board

CEAE Executive Advisory Board is to act as an advisory body to the Department Chair through:

- advising on a strategic vision and programs that will have an impact on students, engineers and society;
- encouraging resource development through advocacy for state and federal funding, and private gifts to benefit the Department, its students and its stakeholders;
- recognizing achievements of alumni of the Department and others; and
- advocating publicly for the Department and the University of Colorado at the state, federal and global levels.

CEAE Overview

CEAE Vision

The CEAE department aspires to lead in extraordinary education and research for the sustainable development, management and safety of civil and architectural infrastructure systems – serving society in harmony with our natural resources.
CEAE Leadership

Keith Molenaar  
Chair

Rajagopalan Balaji  
Assoc Chair for Civil

Gregor Henze  
Assoc Chair for AREN

Angela R. Bielefeldt  
Undergrad Comm Chair

R. Scott Summers  
Graduate Comm Chair

Araceli Warren  
Office Manager

University of Colorado  
Boulder

Disciplines

Six Traditional Disciplines

• Building Systems Engineering
• Construction Engineering and Management
• Environmental Engineering
• Geotechnical Engineering and Geomechanics
• Structural Engineering and Structural Mechanics
• Hydrology, Water Resources, and Environmental Fluid Mechanics

Four Interdisciplinary Programs

Civil Systems  
Engineering Science  
Engineering for Developing Communities  
Geoenvironmental Engineering

Ranked 20th overall and 14th among public graduate programs (141 program in 2012)
CEAE by the Numbers

Degree Programs
Architectural (BS, MS, PhD)
Civil (BS, MS, PhD)
Environmental (BS)

46 Full-time faculty
41 Tenure-Track
3 new hires this fall
3 Senior Instructors
1 new hire this fall
2 Research Faculty

1003 Students
506 Civil and Arch undergrads
215 Environmental undergrads
282 Civil Graduates

Civil was one of two CU Engineering Programs in 1893

CEAE Strengths

Faculty Excellence
- Five NSF CAREER awardees
- Three NAE members
- Wide range of faculty awards
- 3 additional faculty in 2012

Student Excellence
- 6 NSF graduate awards in 2011-12
- 3 EPA Science To Achieve Results (STAR) awards
- George Melendez Wright Climate Change Fellowship
Faculty Excellence

Angela Bielefeldt  
BFA Excellence in Service

Amy Javernick-Will  
ENR Top 20 Under 40

Diane McKnight  
National Academy of Engineering

Hari Rajaram  
President's Teaching Scholar  
BFA Excellence in Teaching

Mathew Hallowell  
ASCE New Faculty Excellence in Teaching  
Dean's Performance Award

Student Excellence

Civil Engineering  
Serving the World

Improving sustainability of household sanitation infrastructure

- Jessica Kaminsky
- Prof. Amy Javernick-Will
- US Environmental Protection Agency's Science To Achieve Results (STAR)
Student Excellence

**Civil Engineering**
**Serving the World**

Using of advanced oxidation technologies to destroy chemical contaminants in drinking water

- Austa Parker
- Prof. Karl Linden
- US National Science Foundation

Student Excellence

**Civil Engineering**
**Serving the World**

Exploring the impact of heat exchange on the deformation response of geosynthetic-reinforced soil structures

- Melissa Stewart
- Prof. John McCartney
- US National Science Foundation
Student Excellence

Civil Engineering
Serving the World

Evaluating the alignment and performance of alternative fuel deployment programs

- Nat Sobin
- Prof. Keith Molenaar
- US National Science Foundation

Facilities

Bad news – facilities repairs in 2012
- Centrifuge repair
- MTS repair

Good news - facilities upgrades for 2012
- $420K Environmental Sustainability Labs
  - ~3,500 sf of new space in CHEM wing
  - Environmental Microbiology and Advanced Analytical Chemistry
- $75K Upgrades to graduate offices
- $30K Graduate student collaboration space
CEAE Challenges – Update

Limitations on Faculty Growth

• No increase in tenure track faculty in 6 years
  • 1 new faculty in 2013 for RAP growth line
• Limited state funding for senior instructors
  • Success with additional Lighting Program faculty

Lack of Staff Resources

• Flat budget for staff
  • +0.25 FTE for research growth
• EVEN program has limited staff
  • +0.5 FTE for three years from Dean

Unstable Undergraduate Enrollments

<table>
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<th>AREN</th>
<th>CVEN</th>
<th>Total</th>
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<tr>
<td>2011</td>
<td>185</td>
<td>298</td>
<td>483</td>
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</tbody>
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AREN Freshman enrollment has decrease drastically
All-time high of 55 in 2006 to 26 in 2011
CEAE Challenges - Update

Facility Age and Utilization

- Structures lab is underutilized
- Larson building energy labs in need of upgrades
- Funds required for Environmental lab move