



Industry + Academia

SPARKING INNOVATION

IN CIVIL ENGINEERING EDUCATION

Sparking Innovation in Civil Engineering
Education Summit

June 10th-12th

2025



CASE WESTERN RESERVE
UNIVERSITY

ASCE

Industry + Academia SPARKING INNOVATION IN CIVIL ENGINEERING EDUCATION

Objectives & Expected Outcomes

The 2025 ASCE Civil Engineering Education Summit brings together industry and faculty leaders to propel innovation across the civil engineering education continuum. We must all work together to reimagine education, bridge critical skill gaps, and equip the next generation of civil engineers for unprecedented opportunities and challenges. Join us as we shape the future of our profession, creating a lasting impact on our communities and the world.

At the summit, industry and academic partners will collaborate to identify, define, and create plans for:

- The top 5 essential professional skills to meet the future needs of our industry.
- The top 5 critical technical skills to harness emerging technologies, create innovative solutions, and solve our most pressing problems.
- The top 5 engaging outreach strategies to attract and scale the next generation of civil engineers.

Summit Schedule at a Glance

June 10, 2025	June 11, 2025	June 12, 2025
Travel	Breakfast & Morning Sessions: <ul style="list-style-type: none">• Recap, Intro, CEBOK Boards• New Tech Rapid-Fire Briefs• Workshop: Tech Skill Gaps• Workforce Development TF	Breakfast & Morning Sessions: <ul style="list-style-type: none">• Prioritize Tech Skills• Prioritize Professional Skills• Prioritize Outreach• Commit to Change
Lunch / Informal Meet & Greet	Lunch / Discuss TF Report	Lunch & Call to Action
Afternoon Sessions <ul style="list-style-type: none">• Intro and CEBOK Boards• Change Leadership• What inspires students?• Outreach Hackathon• Collect Collaboration Hiccups	Afternoon Sessions <ul style="list-style-type: none">• Bridge the Collaboration Gap• Perspectives on Prof Skills• Workshop on Prof Skill Gaps• Outreach Media Contest• Prep to Create	Travel
Reception An evening at the Cleveland Museum of Art (walkable)	Reception Dig in and Create Engagement Artifacts at the Think Box	

CALL FOR ABSTRACTS AND VIDEOS

Call for Presentation and Panel Member Abstracts

Abstract Submittal Deadline: May 9, 2025

During the summit, two sessions will be hosted that allow industry and academic partners to share on the topics of 1) new technology/processes, and 2) professional development.

1) New Technology / Processes Call for Abstracts

The first call is for Rapid Fire Presentations on New Tech Applications in Civil Engineering. A series of short (5 min) presentations from both industry and academia provide information about the latest developments in civil engineering. Topics are expected to include use of AI, automation, new materials, prototyping/simulation, and new methods, with a focus on those technologies/processes that are not already widely incorporated into civil engineering curriculum. (150-300 words)

2) Professional Development Call for Abstracts

As our world and our work continue to change, we must also address continuing challenges and shifts in professional development needs for young professionals. We are seeking abstracts from industry and academia to identify panel members to provide their perspectives on emerging professional skill gaps. This session will have both short presentations and audience Q&A. (150-300 words)



[Submit Abstract](#)

Outreach Video Competition

Video Submittal Deadline: May 30, 2025

The ASCE Education Summit Planning Committee invites submissions for a **showcase and competition to help identify and share the most engaging outreach ideas**. We are looking for short videos (~1-2 minutes) that showcase innovative strategies for creating excitement around civil engineering. Civil engineering programs and faculty are encouraged to present creative concepts that effectively engage K-12 students in civil engineering.

This is an excellent opportunity to share your insights with a broader audience, gain recognition, and inspire others with your enthusiasm for education and outreach. **Prizes will be awarded for the most exceptional entries, and selected videos will be featured at an upcoming ASCE event.** Please complete the form and submit a video/link that highlights the activity—testimonials are a wonderful addition!



[Submit Video](#)

Day 1: Tuesday, June 10, 2025

12:00 PM - 12:45 PM CT	Opening Lunch Meet & Greet
12:45 PM - 1:00 PM CT	Welcome and Introductions
1:00 PM - 2:30 PM CT	Change Management Session 1: Laying the Foundation for Change in Academia & Workforce - Julia Williams, Author of <i>Making Changes in STEM Education</i> <i>The Change Maker's Toolkit</i> <u>Objective:</u> Introduce key change management principles and discuss barriers to change in academic and professional settings. <u>Activity:</u> Interactive discussion on current challenges and successful strategies.
2:30 PM - 2:45 PM CT	Bio-break/Networking
2:45 PM - 2:50 PM CT	A Word about the Outreach Media Contest & Collaboration Pitfalls
2:50 PM - 3:30 PM CT	Panel Discussion: Inspiring Future Engineers - TBD <u>Objective:</u> Speakers from multiple organizations present the latest research and findings on successful strategies for engaging K-12.
3:30 PM - 5:00 PM CT	Workshop 1: Reimagining Outreach to Future Generations <u>Objective:</u> Participate in hackathons to create civil engineering outreach activities that are appealing to diverse, next-generation students. Considerations: inclusivity, emerging job roles, and global challenges.
6:00 PM - 8:00 PM CT	Networking Reception - Cleveland Museum of Art <u>Location:</u> 11150 East Blvd, Cleveland, OH 44106 (walking distance) <u>Purpose:</u> Opportunity for attendees to network in the Cleveland Museum of Art - one of the most visited museums in the world.

Day 2: Wednesday, June 11, 2025

7:30 AM - 8:30 AM CT	Breakfast & Networking
8:30 AM - 8:45 AM CT	Recap, Plan for the Day, CEBOK Open Boards
8:45 AM - 9:30 AM CT	Rapid Fire Presentations on New Tech Applications in Civil Engineering <u>Activity:</u> Numerous short presentations from both industry and academia provide information about the latest developments
9:30 AM - 9:45 AM CT	Bio-break/Networking
9:45 AM - 11:00 AM CT	Workshop 2: Addressing Technical Skills Gaps <u>Objective:</u> Identify the top 5 technical skills gaps, especially those that align with the integration of new technology in civil engineering (e.g., AI, machine learning, sustainability practices).
11:00 AM - 12:00 PM CT	Update from ASCE's Transforming Our Workforce Task Committee



12:00 PM - 1:00 PM CT

Lunch & Discussion of Workforce Development ReportActivity: Back of the napkin feedback for the ASCE Workforce Task Committee

1:00 PM - 2:30 PM CT

Change Management Session 2: Bridging the Gap Between Education and IndustryObjective: Small group discussions on aligning curriculum with industry needs, emphasizing hands-on experience and collaboration.

2:30 PM - 2:45 PM CT

Bio-break/Networking

2:45 PM - 3:45 PM CT

Interactive Panel: Perspectives on Emerging Professional Skill GapsTopic: The Future of Civil Engineering: Challenges and OpportunitiesFormat: Short presentations by industry, academic leaders, and recent grads, followed by audience Q&A.

3:45 PM - 5:00 PM CT

Workshop 3: Defining Professional Skills GapsObjective: Collaboratively define the top 5 professional skills gaps in civil engineering, focusing on industry expectations vs. current educational offerings.Potential Topics: Self-awareness, communication, ethical decision-making, leading multidisciplinary teams, and social responsibility.

6:00 PM - 8:00 PM CT

Creating Reception - Sears think[box] at Case WesternLocation: Richey Mixon Building, 11201 Cedar Ave, Cleveland, OHPurpose: Opportunity for attendees to dig in and create engagement artifacts in the largest open-access innovation center/makerspace in the US. [<https://case.edu/thinkbox/>]**Day 3: Thursday, June 12, 2025**

7:30 AM - 8:30 AM CT

Breakfast & Networking

8:30 AM - 8:45 AM CT

Recap and Preparing for the Wrap-Up

8:45 AM - 10:15 AM CT

Change Management Session 3: Convergence Workshop (5-5-5)Objective: Attendees collaboratively converge on the top 5 tech skills, professional skills and engaging outreach activities. Participants will further outline the steps needed to implement changes identified during the summit - this includes setting goals, assigning responsibilities, and timelines.

10:15 AM - 10:30 AM CT

Bio-break/Networking

10:30 AM - 11:30 AM CT

Workshop 4: Commitment to Change/Elevator PitchObjective: Attendees commit to changes they are willing to work on through academia and industry partnerships. Participants develop their elevator pitch so they can share it when they return home.

11:30 PM - 12:00 PM CT

Summit Summary & Call to Action

12:00 PM - 1:00 PM CT

Closing Lunch

The image features a stylized illustration of a sunrise. A bright orange sun is partially obscured by white, fluffy clouds at the horizon. Numerous yellow rays emanate from the sun, spreading across the sky. The sky is composed of layers of light blue clouds. The foreground consists of dark blue, rolling hills. In the top left corner, the ASCE logo is displayed in white. The text 'HOW ARE YOU SPARKING INNOVATION?' is written in a white, handwritten-style font in the bottom right corner.

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