



AMERICAN SOCIETY OF CIVIL ENGINEERS

# Civil Engineering Education Summit

*Empowered to Innovate*

Tuesday, May 28<sup>th</sup>

## **CONNECTING** the Future

1:00 – 1:15	Welcome	<b>Kevin Hall</b> <i>University of Arkansas</i>	<b>Barbara Minsker</b> <i>Southern Methodist University</i>
		<b>Steven C. Currall</b> <i>Provost, Southern Methodist University</i>	
1:15 – 2:00	<b>Plenary 1:</b> Opening Address		<b>Chris Luebke</b> <i>Arup Foresight</i>
2:00 – 2:15	Charge to the Conference		<b>Kevin Hall</b>
2:15 – 2:45	<b>Engagement 1:</b> The Decades in Review		<b>Dan Linzell</b> <i>University of Nebraska-Lincoln</i> <b>Mary Roth</b> <i>Lafayette College</i>
<b>2:45 – 3:15</b>	<b>Networking Break 1</b>		
3:15 – 5:00	<b>Panel Discussion:</b> “The State of the <u>Profession</u> ”		<b>Kevin Hall</b>
	3:20 – 3:45 ASCE Perspective	<b>K.N. Gunalan</b> <i>President-Elect, ASCE</i>	
	3:45 – 4:15 Industry Perspective	<b>TBA</b> <i>American Council of Engineering Companies</i>	
	4:15 – 4:40 Diversity, Inclusion, and Equity	<b>Yvette Pearson</b> <i>Rice University</i>	
	4:40 – 5:00 Audience Q&A		
5:00 – 5:30	<b>Engagement 2:</b> CE Curriculum Development		<b>David Dzombak</b> <i>Carnegie Mellon University</i>
	5:00 – 5:10 BOK / ABET CEPC ABET Calendar	<b>Ken Fridley</b> <i>University of Alabama</i>	
	5:10 – 5:30 Quick Look: the BOK3	<b>Audra Morse</b> <i>Michigan Technological University</i>	
5:30 – 5:45	<b>Daily Summary / “Homework”</b>		<b>Kevin Hall</b>
<b>6:30</b>	<b>Reception</b> <i>Transportation will be provided</i>		<b>Dallas Arboretum</b>



## Civil Engineering Education Summit

*Empowered to Innovate*

Wednesday, May 29<sup>th</sup>

**CONCEIVING** the Future

### BREAKFAST ON YOUR OWN

- |                      |  |  |
|----------------------|--|--|
| 8:00 – 8:15          | Welcome Back / Charge for the Day  | <b>Kevin Hall</b>  |
| 8:15 – 9:00          | <b>Plenary 2:</b> ASCE “Future World Vision”   | <b>Jerry Buckwalter</b><br><i>Northrop Grumman</i>                 |
| 9:00 – 10:00         | <b>Engagement 3:</b> Table-Top Breakouts<br><i>Opportunities and Challenges (for Education) related to ASCE Future World Vision</i>                |  |
| <b>10:00 – 10:30</b> | <b>Networking Break 2</b>  |  |
| 10:30 – 10:50        | <b>Breakout Summaries – The Number Ones</b><br><i>Each table provides #1 response – Opportunity and Challenge</i>                                  |  |
| 10:50 – 11:50        | <b>Mini-“TED” Talks:</b> Innovations and Innovators  | <b>Jerry Lynch</b><br><i>Univ. of Michigan</i>                     |
| 10:55 – 11:05        | OUTSIDE THE ACADEMY  | <b>Marc Hoit</b><br><i>ASCE Innovation Contest</i>                 |
| 11:10 – 11:20        | COLLEGE/UNIVERSITY PERSPECTIVE   | <b>Alison Wood</b><br><i>Olin College</i>                          |
| 11:25 – 11:35        | FACULTY PERSPECTIVE  | <b>Brett Story</b><br><i>Southern Methodist University</i>         |
| 11:40 – 11:50        | NSF WORKSHOP PERSPECTIVE   | <b>Lucio Soibelman</b><br><i>University of Southern California</i> |
| 11:50 – 12:00        | Q & A  |  |
| <b>12:00 – 12:45</b> | <b>Lunch</b><br><i>Lunch will be provided in the Mack Ballroom. The next conference session will begin in the Mack Ballroom promptly at 12:45.</i> |  |



## Civil Engineering Education Summit

*Empowered to Innovate*

Wednesday, May 29<sup>th</sup> -- continued

### **CONCEIVING** the Future

12:45 – 2:00 **PechaKucha Session:** Curriculum Innovation

**Tiago Forin**  
Rowan University

*This session will address curriculum innovation at ten (10) institutions, including subject areas of civil and environmental engineering and/or broader program-wide transformation, which will be effective for training engineers for the 21<sup>st</sup> century workforce.*

Lead Author	Title
Caroline Bennett	Achieving Change in Civil Engineering Education: Building Community and Expertise to Change Educational Practices and Culture
Tiago Forin	Developing Inclusive Content for Technical Courses
Jerome Lynch	For the Times They are A Changin': Curriculum Broadening to Keep Civil and Environmental Engineering Relevant
Angel Perez	Using the Grand Challenges of Engineering to Complement a Civil Engineering Curriculum
John Schemmel	Mapping the Future of Civil Engineering Innovation
Sarah Christian, Dave Dzombak	A Four-Year Design(-Build-Test) Thread
Barbara Minsker	THINK-PLAY-HACK: A New Model for Teaching Data Science Skills to CEE Students
Rebekah Oulton	An Engaging Introduction to Civil Engineering Design: An innovative format to improve curriculum accessibility for first-year civil engineering students
Michael Penn	Frontloading the civil engineering curriculum: Introduction to Infrastructure
Clifton Farnsworth	Bridging the Gap in Construction Education



## Civil Engineering Education Summit

*Empowered to Innovate*

Wednesday, May 29<sup>th</sup> -- continued

### **CONCEIVING the Future**

*The Wednesday afternoon **Engagement 4** sessions will be led by faculty and staff from the **Master of Arts in Design and Innovation (MADI) program** in the Lyle School of Engineering at Southern Methodist University (<https://www.smumadi.com/>). The overall goal of the sessions is to help participants transform the concepts, ideas, and information learned during the conference into plans for achieving the collective vision of civil engineering education through the mid-21<sup>st</sup> century.*

2:15 – 3:30      **Engagement 4: Moving Vision to Action I**      **Jessica Burnham, Devon Skerritt**  
*MADI*

2:15 – 2:45 - Intro to Design and Innovation and Why This Method Matters

2:45 – 3:15 - Self Reflection: Design, Innovation, Education, and the Profession

**3:15 – 3:30      Networking Break 3**

3:30 – 4:45      **Engagement 4 Continued: Moving Vision to Action II**      **Jessica Burnham, Devon Skerritt**  
*MADI*

3:30 – 3:45 - Brainstorm Training

3:45 – 4:15 - Group Brainstorming and Theme Recognition

4:15 – 4:45 - Prioritizing Themes and Developing Guiding Principles

4:45 – 5:00      **Q & A**

5:00 – 5:15      **Daily Summary / “Homework”**      **Kevin Hall**

**7:00      DINNER      Mack Ballroom, SMU**

**SPEAKER:**    **Marc P. Christensen, Ph.D.**  
Dean and Lyle Professor of Engineering Innovation  
Lyle School of Engineering  
Southern Methodist University



## Civil Engineering Education Summit

*Empowered to Innovate*

Thursday, May 30<sup>th</sup>

**CONSTRUCTING** the Future

### BREAKFAST ON YOUR OWN

8:00 – 8:15	<b>Welcome Back / Charge for the Day</b>	<b>Kevin Hall</b>
8:15 – 9:00	<b>Mini-Plenary:</b> Packaging our Products & Activities	<b>Summit Program Committee</b>
9:00 – 10:00	<b>Engagement 5:</b> Product Development <i>Break Out Groups; each group develops a specific call for action</i>	
<b>10:00 – 10:30</b>	<b>Networking Break 4</b>	
10:30 – 11:15	<b>Action Plans</b> <i>Each Product Development Group provides an overview of its call for action</i>	
11:15 – 11:45	<b>Closing Plenary:</b> Our Collective Vision	<b>Kevin Hall</b>
11:45 – 12:00	<b>Conference Wrap-Up / Evaluations</b>	<b>Kevin Hall</b>



## Civil Engineering Education Summit

*Empowered to Innovate*

### Civil Engineering Education Summit 2019 – Program Planning Committee

Kevin Hall	University of Arkansas	co-Chair
Dan Linzell	University of Nebraska-Lincoln	co-Chair
Barbara Minsker	Southern Methodist University	Chair, Local Arrangements Committee
Robin Autenrieth	Texas A&M University	
Glenn Bell	Simpson, Gumpertz, & Heger	
David Dzombak	Carnegie Mellon University	
Mary Roth	Lafayette College	
Beena Sukumaran	Rowan University	
Camilla Saviz	University of the Pacific	Chair, ASCE Committee on Education
Jerome Hajjar	Northeastern University	Chair, ASCE Dept. Heads Coordinating Council (DHCC)
Leslie Nolen	ASCE	Director, ASCE Educational Activities
Dion Coward	ASCE	Manager, ASCE Educational Activities
Jessica Burnham	Southern Methodist University	Director of Design and Innovation Programs, MADI
Rick Duschl	Southern Methodist University	Exec. Director, Caruth Institute for Engineering Education

### Civil Engineering Education Summit 2019 – Local Organizing Committee

Barbara Minsker	Southern Methodist University	Chair
Robin Autenrieth	Texas A&M University	
Mark Boyd	LCA Environmental	
Jessica Burnham	Southern Methodist University	Director of Design and Innovation Programs, MADI
Dion Coward	ASCE	Manager, ASCE Educational Activities
Norb Delatte	Oklahoma State University	
Rick Duschl	Southern Methodist University	Exec. Director, Caruth Institute for Engineering Education
Gray Garmon	Southern Methodist University	MADI
Robert Gilbert	University of Texas-Austin	
Randall Kolar	University of Oklahoma	
Steve Lucy	JQ Engineering	
Leslie Nolen	ASCE	Director, ASCE Educational Activities
Lindsay O’Leary	ASCE-Texas Section	Executive Director
Yvette Pearson	Rice University	
Camilla Saviz	University of the Pacific	Chair, ASCE Committee on Education
Devon Skerritt	Southern Methodist University	MADI
Shawnita Sterett	Autodesk, Inc.	
Dan Witliff	GDS Associates, Inc.	