The HEALTH of the Integrated Building

AEI FORUM
Omaha, Nebraska | April 4–6, 2018

PROFESSIONAL
Earn up to
5.5
DEVELOPMENT HOURS

www.aei-forum.org
**AEI FORUM 2018 Schedule**  All sessions take place in the Scott Conference Center (SCC) unless otherwise noted.

**Wednesday, April 4**
- **9:00 - 11:00 a.m.** Workshop for Student Chapter Leaders & Committee Meetings (PKI 3.50)
- **11:00 a.m. - 5:00 p.m.** AEI Academic Council Meeting (PKI 250)
- **12:00 - 7:00 p.m.** REGISTRATION (SCC Foyer)
- **12:00 - 6:00 p.m.** AEI Workshop for Student Chapter Leaders (PKI 158)
- **12:00 - 10:00 p.m.** AEI Student Design Competition Practice (SCC Center Room)
- **5:30 - 7:00 p.m.** Student Social Alpine Engineering Reception
- **7:30 - 10:00 p.m.** Student Design Competition Committee Meeting (SCC Board Room)

**Thursday, April 5**
- **7:30 - 8:30 a.m.** BREAKFAST (SCC Foyer)
- **7:30 a.m. - 6:00 p.m.** REGISTRATION (SCC Foyer)
- **8:00 a.m. - 5:00 p.m.** AEI Student Design Competition (SCC Center Room)
- **9:00 a.m. - 5:00 p.m.** Technical Tours
- **10:00 a.m. - 4:00 p.m.** EXHIBIT HOURS (SCC Foyer)
- **10:00 - 10:15 a.m.** BREAK
- **12:00 - 1:00 p.m.** LUNCH
- **12:30 - 1:00 p.m.** Student Elections
- **12:00 - 1:30 p.m.** Joint Meeting of the BoG and AC (SCC West Room)
- **3:00 - 3:15 p.m.** BREAK (SCC Foyer)
- **6:00 - 8:30 p.m.** Welcome Reception & Career & Exhibit Fair (SCC Center Room)
- **7:30 - 8:30 p.m.** Professional Project Award Presentations (SCC Center Room)
- **8:30 - 10:00 p.m.** Student Social

**Friday, April 6**
- **7:00 - 8:30 a.m.** Students & Professionals BREAKFAST (SCC Foyer)
- **7:00 a.m. - 5:00 p.m.** REGISTRATION (SCC Foyer)
- **7:30 - 9:00 a.m.** Student Competition Jury Feedback (SCC West Room)
- **9:00 - 9:45 a.m.** Welcome & Keynote: Aja Kneip Pelster (SCC Center/West)
- **9:45 - 10:45 a.m.** Session #1A: Ed Clark | Clearing Health and Wellness Hurdles with Integrated, Circadian-impactful Lighting Design (SCC West Room)
- **Session #1B: Marlene Linders | De-mystifying Healthcare: 3 Critical Keys in Doing business with the American Healthcare System (SCC East Room)
- **BREAK**
- **Session #2A: Marcel Harmon & Stuart Shell | Health in the Built Environment – The WELL Building Standard (SCC West Room)
- **Session #2B: Jonathan Bartling | VR/AR: Next Generation Design – Empathetic Design: It's not just what you see... (SCC East Room)
- **HGA Demo (SCC Board Room)**
- **Lunch with Keynote – Victor Sandoval | The Business Case Integrated Lean Project Delivery**
- **Children’s Hospital Omaha IPD Project Team Panel Discussion (SCC Center Room)**
- **Session #3A: Ilene Busch Vishniac | The Unique Challenges of Healthcare Facilities (SCC West Room)
- **Session #3B: Marlene Linders | Overview of Risk Management for Infection Control during Healthcare Construction (SCC East Room)
- **BREAK**
- **Session #4A: Pat Kelly | Technology in Healthcare: Whole Person Healthcare (SCC South West Room)
- **Session #4B: Architectural Engineering PhD, is it for you? Panel Discussion (SCC North West Room)
- **Session #4C: Scott Foral | Solve Complex Problems with Data-driven Design (SCC East Room)
- **WRAP UP: Darren Dagforde | Taking a Medical Campus to Net Zero by 2030. It Isn’t All About Reducing Energy (SCC Center Room)
- **AEI’s 20th Anniversary Reception (SCC Foyer & East Room)
- **Awards Banquet (SCC Center & West Rooms)**

Join the conversation at AEI Forum: share takeaways, lessons learned, inspiring quotes, and photos from the event on Twitter and your other favorite social networks using #AEIForum18. Simply add #AEIForum18 to posts about the event!

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**Professional Development Hours (PDH) – up to 5.5**

You may earn PDHs, which are nationally recognized units of record, by attending the Forum technical sessions. Please note that there are differences from state to state in continuing education requirements from professional engineering licensure. Each state licensing board has the final authority to approve courses, credits, PDHs and other methods of earning credits in that state. ASCE DOES NOT KEEP A RECORD OF CREDITS EARNED AND STRONGLY RECOMMENDS THAT INDIVIDUALS KEEP A RECORD OF CREDITS EARNED. Submit your credits to the licensing board and regularly check for specific continuing education requirements in the jurisdictions that affect professional engineering licensure and the ability to renew licensure.
Welcome to the 2018 AEI Forum

On behalf of the Architectural Engineering Institute (AEI) and the University of Nebraska’s Durham School of Architectural Engineering and Construction, we welcome you to the 2018 AEI Forum. Our theme this year is “The Health of the Integrated Building.” The 2018 AEI Forum will offer two full days of exciting presentations, discussions, building tours, and networking opportunities for students, academics, and industry professionals from all facets of the Architectural Engineering industry. Approximately 60 of the top Architectural Engineering students in the world will participate in the AEI Student Design Competition and we encourage professionals to experience the awe-inspiring student presentations on day one of the Forum.

We also urge the students to participate in the excellent, forward-looking presentations on day two. Nebraska’s Architectural Engineering program has a very strong connection with the AE industry, and we are honored to host this year’s AEI Forum. We are excited for a successful and impactful Forum that will continue to build the foundation for future Forums to come. We look forward to meeting you during your time here.

If you find yourself with some extra time in Omaha, be sure to check out the world-renowned Henry Doorly Zoo, the Historic Old Market, the Durham Museum, the Joslyn Art Museum, or other Omaha area hot-spots.

Welcome to Omaha!

AEI FORUM 2018 Sponsors

Local Planning Committee

Jay A. Puckett, Ph.D., P.E., F.ASCE | Director, DSAEC, UNL, Omaha, NE
Melissa Hoffman, Ph.D. | Associate Director, Operations, DSAEC, UNL, Omaha, NE
Andy Yosten, P.E. | Vice President, Director of Mechanical Engineering at HDR, Omaha, NE
Chris Beaty | Major Projects Sales Engineer, Johnson Controls Inc., Omaha, NE
Steve Yanke, P.E. | Principal, Affiliated Engineers, Inc., Phoenix, AZ
Erica Ryherd, Ph.D. | Associate Professor, DSAEC, UNL, Omaha, NE
Luke Dolezal | AEI National Student Vice President, 2017-2018, UNL AE Student
Jonathan Ingram | AEI National Student Vice President, 2016-2017, UNL MAE student
Andrew Bechdolt | Administrative Technician, DSAEC, UNL, Omaha, NE
Jennifer Skidmore, M.A. | Director of Student Development, College of Engineering, UNL, Omaha, NE
Bonnie Martin | Career Services Coordinator, College of Engineering, UNL, Omaha, NE

ASCE Staff

Catherine Tehan | Director, AEI
Verna Jameson, MPA | Manager, AEI

Stephanie J. Guy, P.E., LEED AP | Associate Principal, Alvine Engineering, Omaha, NE | Chair
Clarence E. Waters, Ph.D., P.E., F.AE | Professor, Durham School of Architectural Engineering and Construction (DSAEC), University of Nebraska-Lincoln (UNL), Omaha, NE | Chair
KEYNOTE SPEAKERS

Welcome & Keynote
Aja Kneip Pelster, Ph.D.
Assistant Professor, School of Health and Kinesiology, Education, University of Nebraska Omaha

Wrap Up
Darren Dageforde
Director of Utilities, University of Nebraska Medical Center. University of Nebraska-Lincoln
Taking a Medical Campus to Net Zero by 2030, It Isn’t All About Reducing Energy

KEYNOTE LECTURERS

Victor Sanvido, Ph.D.
Senior Vice President, Southland Industries
The Business Case Integrated Lean Project Delivery (ILPD) and The Moderation of the Children’s Hospital Omaha IPD Project Team Panel Discussion

Ed Clark, IES, WELL AP, LEED AP BD+C, RESET AP
Building Designer and Director, Circa Dio
Clearing Health and Wellness Hurdles with Integrated, Circadian-Impactful Lighting Design

Jonathan Bartling, AIA, LEED AP

Ilene Busch Vishniac, Ph.D.
Consultant, BeoGrin Consulting, MIT
The Unique Challenges of Healthcare Facilities

Scott Foral, LEED, AP
Managing Principal, HDR Consulting
Solve Complex Problems with Data-Driven Design

Marlene Linders, RN, MS, AIA
ASHRAE Distinguished Lecturer President and CEO Philhers Group Intl Inc.
Overview of Risk Management for Infection Control During Healthcare Construction
De-Mystifying Healthcare: 3 Critical Keys in Doing Business with the American Healthcare System

Marcel Harmon, Ph.D., PE, WELL AP, LEED AP O+M
Forte Building Science, ME Group
Health in the Built Environment – The Well Building Standard

Stuart Shell, AIA, WELL AP, LEED AP BD+C
Forte Building Science, ME Group
Health in the Built Environment – The Well Building Standard

Pat Kelly, RCDD
Telecom Engineer, Associate Principal, Alvine Engineering - IP Design Group
Technology in Healthcare-Think Whole Person Healthcare

TECHNICAL TOURS

Thursday, April 5
(Space is limited.)

HDR Corporate Headquarters
The new global headquarters for HDR are under construction at Aksarben Village. Scheduled for completion in early 2019, the new headquarters will be ten stories high and 228,218 sq. ft., and can immediately house 1,150 employees. HDR specializes in engineering, architecture, environmental, and construction services.

The HDR tour is for students only.
The bus departs at 3:30 p.m. and returns at 5:00 p.m.

Children’s Hospital Big Room
The addition at Children’s Hospital Omaha is the project challenge for the AEI Student Design Competition. This addition, a collaborative alliance of the owner, design team, and construction team consists of a new six-story tower and three-story ancillary base (or podium), using an Integrated Project Delivery (IPD) process. The “Big Room” is a space onsite where owners, architects, engineers, and contractors are co-located to work together on this very complex project. Inside the Big Room is a 1,000 sq. ft. meeting space and a work area for 65 collaborators from ten different companies.

Peter Kiewit Institute
Home of the Durham School of Architectural Engineering and Construction, the Peter Kiewit Institute [PKI] on the Scott Campus in Omaha is designed to help meet the needs of the nation’s technology and engineering firms by providing a top-flight education to students interested in pursuing careers in information science, technology, and engineering. The tour visits the exposed building systems throughout PKI and the Durham School’s Lighting and Building Electrical Systems Lab, Acoustics Labs, HVAC Systems Labs, and Structures Lab.

Scott Data Center
The Scott Data Center offers more than 110,000 square feet of facilities to meet the advanced data storage needs of companies across the country. Nationally recognized as a leader in the industry, the Scott Data Center has been in continual operation since its founding in 2006 and is one of only two multi-tenant data centers in the United States to receive Tier III Certification from the Uptime Institute in both design and construction.

For the Scott Data Center, PKI (walking tours), and Children’s Big Room (bus tour) departure times are as follows:

Tour 1: 8:30 – 10:00 a.m.
Tour 2: 10:00 – 11:30 a.m.
Tour 3: 1:00 – 2:30 p.m.
Tour 4: 2:30 – 4:00 p.m.
Tour 5: 4:00 – 5:30 p.m.