

**TECHNOLOGY FORUM AGENDA
THE BENSON PORTLAND
AUGUST 29 – 31, 2023**

Times listed are pacific daylight time.

Tuesday - August 29, 2023

5:30 pm – 7:00 pm Welcome Reception

Wednesday – August 30, 2023

7:00 am – 8:00 am **Registration**

7:00 am – 8:00 am **Breakfast Buffet**

8:00 am – 8:15 am **Opening Remarks**

Speaker: **Brian H. Green**, RPG, FACI, Senior Research Geologist & **CIC Chair**
Company: U. S. Army Corps of Engineers - Engineer Research & Development Center

8:15 am – 8:45 am **Technology Showcase: REBEL Sensors for Real-time Concrete Strength Monitoring - without using a maturity curve**

Speaker: **Luna Lu**, CEO of WaveLogix Inc., Associate Dean of the College of Engineering, & Reilly Professor of Lyles School of Civil Engineering, Purdue University
Company: WaveLogix, Inc.

8:45 am – 9:15 am **Presentation: Unveiling the Advances in Basalt Technology: From Basalt Fibers to BFRP Reinforcement**

Speaker: **Alvaro Ruiz Empananza**, PhD, Postdoctoral Associate
Company: University of Miami

9:15 am – 9:45 am **Presentation: How Do Venture Capitalists Evaluate Technologies for Investment?**

Speaker: **Curtis Rogers**
Company: Brick & Mortar Ventures

9:45 am – 10:15 am *****Break*****

10:15 am – 10:45am **Technology Showcase: 3 Essentials to Align your BIM in AR**

Speaker: **Maret Thatcher**, CEO
Company: Argyle Build Inc.

10:45 am – 11:15am **Presentation: Using Machine Learning to Automate Design Tasks**

Speaker: **Brad Malmsten**, PE, Senior Principal
Company: Thornton Tomasetti

Wednesday - August 30, 2023, continued . . .

- 11:15 am – 11:45am **Presentation: An Overview of NEU and its Validation Program**
Speaker: **Dean Frank**, PE, Executive Director of NEU
Company: NEU - An ACI Center of Excellence for Carbon Neutral Concrete
- 12:00 pm – 1:00 pm *****Lunch*****
- 1:00 pm – 1:30 pm **Technology Showcase: Carbon Capture of CO₂ from Gas Streams**
Speaker: **Brittany Zimmerman**, CEO & Chief of Innovation
Company: Yummet
- 1:30 pm – 2:00 pm **Presentation: CCUS and Innovative Materials: The Building Blocks for Net-Zero Concrete**
Speaker: **Emily Kunkel**, PE, Vice President – Applied Science
Company: Thornton Tomasetti
- 2:00 pm – 2:30 pm **Technology Showcase: Sublime Systems - Decarbonizing Cement Manufacturing with Electrochemical Lime Production**
Speaker: **Leah Ellis**, CEO & Co-Founder
Company: Sublime Systems, Inc.
- 2:30 pm – 2:45 pm *****Break*****
- 2:45 pm – 3:15 pm **Presentation: Recycled Concrete Aggregate (RCA) in New Concrete**
Speaker: **Greg McKinnon**, General Manager
Company: Stoneway Concrete Company
- 3:15 pm – 3:45 pm **Presentation: Examination of Structures Using Multimodal Imaging and Image Fusion – Case Studies on a Prestressed Concrete Bridge and the Great Pyramid at Giza**
Speaker: **Thomas Schumacher**, PhD, PE (DE), Associate Professor
Company: Portland State University
- 3:45 pm – 4:00 pm **Closing Remarks**
- 5:30 pm – 8:30 pm **Group Cocktail Hour and Dinner**
Portland City Grill (located on the 30th floor of the U.S. Bancorp building)
111 SW 5th Avenue
Portland, OR 97204

Thursday – August 31, 2023

7:00 am – 8:00 am	Registration
7:00 am – 8:00 am	Breakfast
8:00 am – 8:30 am	<p>Presentation: 3D Printing in Construction – UAE Case Study Speaker: Haidar Alhaidary, Project Executive Company: Middle East Engineering Technologies (MEET)</p>
8:30 am – 9:00 pm	<p>Presentation: Framework for Characterizing the Performance of High-Early Strength, High-Volume Fly Ash Concrete Structures Speaker: Matthew J. Gombeda, PhD, Associate Professor of Civil Engineering Company: Illinois Institute of Technology</p>
9:00 am – 9:30 am	<p>Technology Showcase: SmartRock Pro - Wireless Sensor Measuring In-situ Concrete Strength Speaker: Sarah De Carufel, Senior Product Owner Company: Giatec Scientific Inc.</p>
9:30 am – 10:00 am	<p>Presentation: Case Studies in Scalable Innovation for Concrete Sustainability Speaker: Sean Monkman, PhD, PE, VP Concrete Sustainability Company: ICON</p>
10:00 am – 10:15 am	***Break***
10:15 am – 11:45 am	<p>Debate Part II: Alternatives to Concrete Cylinder Testing for Strength A panel will discuss several types of technology currently available to determine concrete strength. Common themes are the use of sensors, artificial intelligence, and non-destructive methodologies. Moderator: Rex C. Donahey, PhD, PE, Director of Innovative Concrete Technology, ACI Viewpoints of Panelists: Client/Lab: <i>to be confirmed</i> Concrete Producer: Patrick Frawley of Vulcan Materials – W. Div. of Central Concrete Contractor: Eric Peterson of Webcor Concrete Engineer: <i>to be confirmed</i> Technology Owner: Luna Lu of WaveLogix, Inc. Technology Owner: Sarah De Carufel of Giatec Scientific, Inc. Q&A with Attendees</p>
11:45 am - 12:00 pm	Wrap-up and Adjourn
12:00 pm – 5:00 pm	Closed Business Meeting: Concrete Innovation Council