

**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 – Decarbonizing Cement and the Co-Production of Green Hydrogen**
Speaker: **Brandon Williams**
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**
(Transportation will be provided.)

Thursday – August 31, 2023

- 7:00 am – 8:00 am **Registration**
7:00 am – 8:00 am **Breakfast**
- 8:00 am – 8:30 am **Presentation: 3D Printing – UAE Case Study, large scale build**
Speaker: **Haidar Alhaidary**, Project Executive
Company: Middle East Engineering Technologies (MEET)
- 8:30 am – 9:00 pm **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
- 9:00 am – 9:30 am **Technology Showcase: SmartRock Pro - Wireless Sensor Measuring In-situ Concrete Strength**
Speaker: **Sarah De Carufel**, Senior Product Owner
Company: Giatec Scientific Inc.
- 9:30 am – 10:00 am **Presentation: Lessons Learned in Developing Innovations**
Speaker: **Sean Monkman**, PhD, PE, VP Technology Development
Company: CarbonCure Technologies
- 10:00 am – 10:15 am *****Break*****
- 10:15 am – 11:45 am **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: *to be confirmed*
Concrete Producer: **Patrick Frawley** of Vulcan Materials – W. Div. of Central Concrete
Contractor: **Eric Peterson** of Webcor Concrete
Engineer: *to be confirmed*
Technology Owner: **Luna Lu** of WaveLogix, Inc.
Technology Owner: **Sarah De Carufel** of Giatec Scientific, Inc.
Q&A with Attendees
- 11:45 am - 12:00 pm **Wrap-up and Adjourn**
- 12:00 pm – 5:00 pm **Closed Business Meeting: Concrete Innovation Council**