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 Emparanza, 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 – 11:45 am  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  
(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: **Case Studies in Scalable Innovation for Concrete Sustainability**
Speaker: Sean Monkman, PhD, PE, VP Concrete Sustainability
Company: ICON

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