

Transportation Infrastructure Durability Center AT THE UNIVERSITY OF MAINE

# 2023 Transportation Infrastructure Durability Conference

## **Driving Research to Deployment**

Tuesday, August 8, 2023 Day 1

3:00 pm: Advanced Structures & Composites Center Tour - invitation only

4:00 pm: Social Networking and Exhibits

6:00 pm: Opening Ceremonies & Welcome Reception Dinner

- Dr. Habib Dagher, P.E., Director, Transportation Infrastructure Durability Center; Executive Director, Advanced Structures & Composites Center, University of Maine
- **Banquet Keynote: Moving Research into Implementation, Sid Mohan,** Associate Program Manager, The National Academies of Sciences, Engineering, and Medicine

Wednesday, August 9, 2023 Day 2

8:00 am – 9:30 am: Check-in, Poster Session, Exhibits – Light refreshments

9:30 am: Welcome Dr. Habib Dagher

9:45 am: Keynote Speaker: Dr. Robert Moser, Senior Scientific Technical Manager, Materials, Manufacturing, and Structures, U.S. Army Engineer Research and Development Center - Driving Research to Practice

#### 10:15 am: Driving Research to Deployment Panel Discussion

- Moderator Dr. Habib Dagher
- Dr. Robert Moser
- Joyce Taylor
- Sid Mohan
- Carrie Lavallee

#### 10:45 am: Break

#### 11:00 am: Plenary Session 1: Sensing the Future: Assessing & Monitoring Transportation Assets

*Moderator:* Dr. Vinka Oyanedel-Craver, *Professor & Associate Dean of Research Civil and Environmental Engineering, University of Rhode Island* 

• AI-Based Advances in UAV-Based Bridge Inspection - Eric Landis, P.E., PhD, Professor, University of Maine



- Bridge Deck Underside Inspection with UAV Mounted Sensors- Dryver Huston, PhD, Professor, University of Vermont
- Optical Fiber Sensing Textile Technology for Long Term Bridge Health Monitoring -Xingwei Wang, PhD, Professor, University of Massachusetts Lowell
- **Remote Sensing Technology for Structural Health Monitoring** Tzuyang Yu, PhD, *Professor, University of Massachusetts Lowell*

#### 12:00 pm: Lunch, Exhibits, Poster Session

#### 1:30 pm: Plenary Session 2: State-of-the-Art in Transportation Composites

Moderator: Roberto Lopez-Anido, PhD, PE, Professor, University of Maine

- State-of-the-Art Composites Technology John P. Busel, Vice President, Composites Growth Initiative, ACMA
- Decarbonization with Fiber-Reinforced Polymer (FRP) Composites Joe Fox, President, FX Consulting, LLC
- **GBeam Composite Bridge Girders: Results of Recent Research and New Developments** Bill Davids, PhD, PE, *Professor, University of Maine*

#### 3:00 pm: Break

#### 3:15 pm: Plenary Session 3: Geotechnical Moonshot Research Initiatives

Moderator: Ehsan Ghazanfari, PhD, Associate Professor, University of Vermont

- Unique Challenges for Developing Civil Engineering Infrastructure on the Moon Ramesh Malla, PhD, *Professor, University of Connecticut*
- **Trailblazing New Approaches to Light Foundations** Aaron Gallant, PhD, PE, *Associate Professor, University of Maine*
- Foam Glass Aggregate Use, Interstate 395/Route 9 Connector Project Erin Force, Project Manager & Senior Engineer, Haley & Aldrich, Inc.

4:45 pm: Closing Remarks Dale Peabody, P.E.

6:30 pm: Advisory Board Dinner - invitation only

### Thursday, August 10, 2023 Day 3

8:00 am – 9:30 am: Check-in, Poster Session, Exhibits – Light refreshments

9:30 am: Welcome - Dr. Habib Dagher

9:45 am: Plenary Session 4: Autonomous Vehicles and Overcoming Demographic Challenges



*Moderator:* Dr. Mandar Dewoolkar, P.E., F ASCE, *Chair & Professor, Civil & Environmental Engineering, University of Vermont* 

- Autonomous Vehicles versus our Roadway and Population Demographics Challenges -Richard Corey, PhD, Director, VEMI Lab, University of Maine
- Autonomous Vehicles in Rural States Jonathan Rubin, PhD, Director, Margaret Chase Smith Policy Center, University of Maine

10:45 am: Break

11:00 am: VEMI Tour

12:00 pm: Lunch

#### 1:00 pm: Plenary Session 5: Successful Deployment Initiatives

Moderator: Bill Davids, PhD, PE, Professor, University of Maine

- Successful Composites Deployment and Upcoming Developments Joe Stillwell, P.E. *Fabrication Engineer, MaineDOT*
- AIT Composites Successful Deployments: GArch & GBeam Tim Kenerson, P.E., Vice President of Engineering, AIT Composites
- Field Bendable Thermoplastic Composite Rebar Roberto Lopez-Anido, PhD, PE, Professor, University of Maine & Cody Sheltra, R&D Program Manager, ASCC University of Maine

2:30 pm: Closing, Bill Davids, PhD, PE

3:00 pm: ASCC Tour – Pre-registration required