

ACI COMMITTEE 239: ULTRA-HIGH PERFORMANCE CONCRETE

2021 ACI Spring Convention

Monday, March 29, 2021 3:30 pm – 6:00 pm (Eastern)

MEETING AGENDA

1. Welcome and Attendee Introductions
2. Approval of Agenda
3. Approval of October 2020 meeting minutes
4. TAC Report – Anton Schindler
5. Membership update – Graybeal and Crane
 - Voting Members: Graybeal (Chair), Crane (Secretary), Aaleti, Ahlborn, Bandelt, Corvez, El-Helou, Ferrara, Green, Habel, Milligan, Moustafa, Myers, Perry, Rowland, Seibert, Shah, Wille
6. SPARK Session – Graybeal [3 minutes presentations plus 2 minutes for Q&A]
 - Interface Shear of Monolithic UHPC – **Zach Haber**
 - Influence of Cracking on Reinforcement Corrosion in UHPC – **Matthew Bandelt**
 - A New Hope: Emerging Steel Fibers for UHPCs in the US – **Greg Nault**
 - Tensile Mechanical Advantages of Fiber Alignment – **Mohammed Alnaggar**
 - UHPC Flexural Behavior of Reinforced Elements at Localization – **Rafic El Helou**
7. Upcoming symposia and conferences
 - BEI *International Symposium on UHPC and Emerging Concrete (BEI-UHPC)*, Singapore, Summer 2023
8. Committee Priorities / Reports
 - 239-E Educational Outreach – Tess Ahlborn, Ben Birch
 - 239-D Materials & Methods of Construction with UHPC – Greg Nault for Dominique Corvez
 - 239-C Structural Design of UHPC – Vic Perry
9. Test Methods for UHPC - Vic Perry, Ben Graybeal
10. Presentation Sessions: Current and Future – Kay Wille
 - Spring 2021 – *See Next Page for Full Sessions (3) and Presentations (19 total)*
 - Fall 2021 (Atlanta)
 - Spring 2022 (Orlando)
11. Concrete Research Council
 - Update on CRC Solicitation and Process – Ben Graybeal for John Myers
 - Ongoing CRC Project – Structural Response of Slender UHPC Columns – Mohamed Moustafa
12. Key External UHPC-related Efforts
 - FHWA Development of Guide Specification for AASHTO – Ben Graybeal
 - CSA Bridge Design Standard – Katrin Habel and Vic Perry
 - FHWA **EDC-6 UHPC for Bridge Rehabilitation and Repair** – Zach Haber
 - Other...
13. Collaborations
 - International updates
 - ACI Committee Liaison Reports
14. New business – (please inform chair prior to start of the meeting if you wish to add new business)
15. Adjourn – next meeting expected to be October 18, 2021, possibly in Atlanta

PARKING LOT: Strategic Planning, Student Competition, Compilation of Research, 239-A ETR

Events Associated with ACI COMMITTEE 239

ULTRA-HIGH PERFORMANCE CONCRETE

at the 2021 ACI Spring Convention

Committee Meetings:

239	Ultra-High Performance Concrete	Monday	3:30p - 9:00p (EDT)	WEB
239-C	Structural Design on UHPC	Monday	10:30a - 12:30p (EDT)	WEB
239-D	Materials & Methods of Construction with UHPC	Monday	1:00p - 3:00p (EDT)	WEB
239-E	Educational Outreach	Sunday	1:00p - 3:00p (EDT)	WEB

Sessions:

UHPC – Innovations in Practical Applications SUN, 10:00a to 12:00p Web

- *Innovative Precast Design Concept for Basins and Tanks Using Ultra High-Performance Fiber Reinforced Concrete with Enhanced Durability* – **Liberato Ferrara**
- *Confining Concrete Column with Eco-friendly UHPC* – **Alessandro Fantilli**
- *Design and Installation of UHPC H-Piles at the Lily River Detour Bridge, Highway 11, near Kapuskasing, Ontario, Canada* – **Philip Loh**
- *Applications of UHPC Vertical & Horizontal Panels* – **Vic Perry**
- *A Reinforced Concrete Bridge Pier Strengthened with HPFRC Jacketing* – **Giovanni Plizzari**
- *Carbon Fiber Reinforced Concrete for Bus-pads* – **Rishi Gupta**

Unlocking Workability Issues of UHPC, Part 1 of 2 THURS, 1:00 to 3:00p Web

- *Rheological Properties of Ultra-high-performance Concrete* – **Weina Meng**
- *Correlation Between “Very Early” Age Fracture Performance and Evolution of Rheological Properties of High Performance Fiber Reinforced Cementitious Composites with Adapted Rheology* – **Liberato Ferrara**
- *Mixture Proportion, Workability, and Performance Evaluation of UHPC* – **Marllon Cook**
- *Using Resonant Acoustic Mixing to Improve UHPC Workability* – **Kay Wille**
- *Effect of Ground Glass Particles on Rheological Behavior of UHPC* – **Aghiles Begriche**

Unlocking Workability Issues of UHPC, Part 2 of 2 THURS, 4:00 to 6:00p Web

- *Particle-Scale Mechanisms and Rheological Response of UHPC* – **Narayanan Neithalath**
- *Achieving Higher Flowability for UHP-FRC* – **Parham Aghdasi**
- *Evaluation of Static and Dynamic Flow of UHPC Prepared with Different Mix Proportions and Mixers* – **Jiong Hu**
- *Rheological Properties of UHPC and its Viscosity Control for Application* – **Jianzhong Liu**
- *Rheological Evaluation for the Slope Casting of Ultra-High Performance Concrete* – **Jae Hong Kim**

Other UHPC-Related Presentations

- *Multi-physics Numerical Simulation of Corrosion and Service Life Evaluation of HPFRCCs* – **Jin Fan**
 - *Session: Research in Progress (1 of 2), MON, 10a-12p*
- *End Regions Repair of Prestressed Girders for Restoring the Shear Capacity using UHPC, FR-SCC, and MALP* – **Mujtaba Ahmadi**
 - *Session: Research in Progress (1 of 2), MON, 10a-12p*
- *New Protocols to Characterize Compressive Strength of Concrete Materials with Strengths up to 250 MPa* – **Cesario Tavares**
 - *Session: Research in Progress (2 of 2), TUES, 10a-12p*