

## **2019 National ABC Conference – Pre-Conference Workshop**

### **W-07: Non-Proprietary UHPC for ABC, Part 2: Demonstration and Implementation**

**Wednesday, December 11, 2019 – 1:00 p.m. to 5:00 p.m.**

#### **Introduction:**

Non-Proprietary UHPC has the potential to be a viable option for ABC applications requiring performance exceeding that of conventional concrete. The differences in mixing, placement, finishing, curing, and testing methods required for UHPC compared to conventional concrete are best understood by practical exposure. This workshop will include demonstration of mixing, placement, and testing of non-proprietary UHPC with hands-on participation by the workshop attendees. It will also include a presentation on the upcoming ABC-UTC “Guide for ABC-UTC Non-Proprietary UHPC” and panel discussion that will identify important elements to consider when specifying non-proprietary UHPC.

#### **Workshop Organizer:**

Royce Floyd P.E., Ph.D., University of Oklahoma

#### **Panel Discussion Moderator:**

Atorod Azizinamini, Ph.D., P.E., Florida International University

#### **Program:**

1:00 p.m.	Depart Hyatt Regency Hotel for FIU Engineering Center	
1:30 p.m.	Welcome and Introduction to Workshop	Royce Floyd, P.E., Ph.D.
1:45 p.m.	UHPC Mixing and Placement Interactive Demonstration	Royce Floyd, P.E., Ph.D. Trevor Looney, P.E.
3:00 p.m.	Break	
3:15 p.m.	UHPC Material Property Testing Interactive Demonstration	Royce Floyd, P.E., Ph.D. David Garber, Ph.D., P.E.
3:45 p.m.	“Guide for ABC-UTC Non-Proprietary UHPC”	Royce Floyd, P.E., Ph.D.
4:00 p.m.	Panel Discussion on Development and Use of Non-Proprietary UHPC	Atorod Azizinamini, Ph.D., P.E. Paolo Calvi, Ph.D. Royce Floyd, P.E., Ph.D. David Garber, Ph.D., P.E. Behrouz Shafei, Ph.D. John Stanton, Ph.D.
4:40 p.m.	Depart the EC to return to the Hyatt Regency Hotel, anticipated time of arrival 5:30 p.m-6:00 p.m.	

## **Speakers & Bios, W-03: Non-Proprietary UHPC for ABC, Part 1: Mix Development and Material Properties**

### **Royce Floyd, P.E., Ph.D., rfloyd@ou.edu (Organizer)**

Royce is an Associate Professor in the School of Civil Engineering and Environmental Science at the University of Oklahoma. His research interests include material property characterization and applications of innovative concrete materials, bond of prestressing strands, prestress losses, camber, and shear behavior of prestressed concrete members, and internal curing using lightweight aggregates. He is currently leading the ABC-UTC effort investigating non-proprietary UHPC.

### **Atorod Azizinamini, Ph.D., P.E., aazizina@fiu.edu (Moderator)**

Atorod is the Vasant H. Surti Professor of Civil Engineering and is the Director of Accelerated Bridge Construction University Transportation Center; Director of the Moss School of Construction, Infrastructure, and Sustainability; and the Director of Preeminent Institute for Resilient and Sustainable Coastal Infrastructure at Florida International University. He has led several major multi-disciplinary bridge engineering-related initiatives and has developed several bridge engineering products/systems that are being used nationally and internationally.

### **Paolo Calvi, Ph.D., pmc85@uw.edu**

Paolo is an Assistant Professor in the Department of Civil and Environmental Engineering. His current research studies include development of mechanical models to estimate the residual strength of RC and PC bridge structures. He designed and supervised construction of the UW Panel Element Tester, which is the first of its kind to be available on the west coast of the US. He is a registered Professional Engineer in Italy.

### **David Garber, Ph.D., P.E., dgarber@fiu.edu**

David is an Assistant Professor of Structural Engineering in the Civil and Environmental Engineering Department at Florida International University. His research focus has been in the areas of time dependent behavior in prestressed concrete members and shear behavior in reinforced concrete deep beams and prestressed members. He is author or coauthor of a number of peer reviewed journal articles in both of these areas.

### **Trevor Looney, P.E., trevor.j.looney@ou.edu**

Trevor is a PhD candidate in the School of Civil Engineering and Environmental Science at the University of Oklahoma. He earned his bachelor's and master's degrees from Missouri University of Science and Technology in Rolla Missouri. After working for Wallace Engineers in Tulsa, Oklahoma he enrolled at OU to pursue a Ph.D. in structural engineering with research focused on UHPC.

### **Behrouz Shafei, Ph.D. shafei@iastate.edu**

Behrouz is an Assistant Professor in the Civil, Construction and Environmental Engineering Department at Iowa State University. His research interests are in vulnerability assessment of structures under mechanical and environmental stressors, nano-scale investigation of cement-based materials, evaluation of uncertainties involved in aging mechanisms, practical implementation of advanced statistical approaches, condition assessment of deteriorating structural components, and mitigation of disasters in infrastructure components.

### **John Stanton, Ph.D., stanton@uw.edu**

John is the Thomas & Marilyn Nielsen Professor in Engineering in the Civil and Environmental Engineering Department at the University of Washington. He worked in design practice for six years in Britain, France and Canada before joining the University of Washington. He has taught and conducted research in several areas of structural engineering, focusing primarily on seismic engineering issues.