

# Welcome to Monthly Webinar on Accelerated Bridge Construction

## ABC Methods for Delaware's All-Precast Bridge 1-438

Sponsored by

*Accelerated Bridge Construction University Transportation Center  
(ABC-UTC) at*

**Florida International University**



**Website: [abc-utc.fiu.edu](http://abc-utc.fiu.edu)**

**Email: [abc@fiu.edu](mailto:abc@fiu.edu)**

**October 18, 2018 – 1:00 p.m. to 2:00 p.m. Eastern**



ACCELERATED BRIDGE CONSTRUCTION  
UNIVERSITY TRANSPORTATION CENTER

# Today's Monthly Webinar

**ABC Announcements** (10 minutes)

**Featured Presentation** (35 minutes)

## ABC Methods for Delaware's All-Precast Bridge 1-438

**Nicholas Dean, P.E., M.C.E.**, Project Engineer, Bridge Design,  
Delaware Department of Transportation

**Question and Answer** (15 minutes)

**Please post your questions in the question box**



# 2019

## INTERNATIONAL ACCELERATED BRIDGE CONSTRUCTION CONFERENCE:

Including Automation, Service Life and Ultra High  
Performance Concrete (UHPC)

December 11-13, 2019  
Miami, FL

[www.abc-utc.fiu.edu](http://www.abc-utc.fiu.edu)

**FIU** Engineering  
& Computing

Food and Environmental Engineering



# Co-Sponsoring Organizations (to date)

## Federal Highway Administration

Alabama Dept. of Transportation

Alaska DOT&PF

Arizona Dept. of Transportation

Colorado Dept. of Transportation

Connecticut Dept. of Transportation

Delaware Dept. of Transportation

Florida Dept. of Transportation

Georgia Dept. of Transportation

Illinois Dept. of Transportation

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Vermont Agency of Transportation

Washington State DOT

West Virginia Dept. of Transportation

Wisconsin Dept. of Transportation

Wyoming Dept. of Transportation



2019

# INTERNATIONAL ACCELERATED BRIDGE CONSTRUCTION CONFERENCE:

Including Automation, Service Life and  
Ultra High Performance Concrete (UHPC)

December 11-13, 2019  
Miami, FL



**CALL FOR ABSTRACTS!**

# CALL FOR ABSTRACTS!

**Submit at:**

[abc-utc.fiu.edu/conference/call-for-abstracts](http://abc-utc.fiu.edu/conference/call-for-abstracts)

**Submission Due: January 18, 2019**

Abstracts are submitted within one of the conference tracks and topics are available on our website.

Abstract Submission Deadline

January 18, 2019

Abstract Decision Notification

March 15, 2019

Extended Abstract or 10 Page  
Paper Deadline

September 2, 2019





## 2<sup>nd</sup> International Interactive Symposium on Ultra-High Performance Concrete

Web Search: ***UHPC 2019 Albany***

**Abstract Deadline - Extended:  
NOVEMBER 5, 2018**

**Innovation Awards  
Deadline:  
MARCH 1, 2019**

**DATE: June 2-5, 2019**

**LOCATION: Albany, New York**

**VENUE: Hilton Albany**

**<https://register.extension.iastate.edu/uhpc2019>**

# 2019 TRB Annual Meeting

## January 13-17, 2019 – Washington, D.C.

### ABC-related activities:

- **Sunday Workshop:** Latest Innovations in Accelerated Bridge Construction (ABC) – Quality Assurance, UHPC, and Visualization / 3D Modeling / Virtual Reality Technologies
- **Technical Session:** Recent Completed NCHRP Research Regarding Accelerated Bridge Construction
- **Technical Session:** Building Information Modeling (BIM) for Bridges and Structures
- **ABC Joint Subcommittee Meeting**



# **ABC-UTC 2018 In-Depth Web Training Archives**

## **VTrans' Programmatic Implementation of ABC**

by

**Vermont Agency of Transportation (VTrans)**

View at: <https://abc-utc.fiu.edu>

# ABC-UTC Website: Resources / FHWA

<https://abc-utc.fiu.edu/resources/fhwa/>

Home Research Education Technology Transfer **Resources** Conference Events News

Resources

State DOTs

Implemented Advanced  
Technologies

Industry

TRB ABC Joint  
Subcommittee

**FHWA**

SHRP2 Implementation

## FHWA

**FHWA ABC website** – “ABC is bridge construction that uses innovative planning, design, materials, and construction methods in a safe and cost-effective manner to reduce the onsite construction time that occurs when building new bridges or replacing and rehabilitating existing bridges.” [More information ...](#)

**FHWA ABC Contact:** Romeo Garcia, [Romeo.Garcia@dot.gov](mailto:Romeo.Garcia@dot.gov)

Links to FHWA ABC Publications:

- [Technical Note: Bond of Field-Cast Grouts to Precast Concrete Elements, 2017](#)
- [Technical Note: Dimensional Stability of Grout-Like Materials Used in Field-Cast Connections, 2016](#)
- [TechBrief: Material Characterization of Field-Cast Connection Grouts, 2013](#)
- [Manual: Engineering Design, Fabrication, and Erection of PBES, 2013](#)
- [Manual: Contracting and Construction of ABC Projects with PBES, 2013](#)
- [TechBrief: Influence of Differential Deflection on Staged Construction Deck-Level Connections, 2012](#)
- [Manual: Accelerated Bridge Construction-Experience in Design, Fabrication and Erection of Prefabricated Bridge Elements and Systems, 2011](#)
- [Manual: Connection Details for Prefabricated Bridge Elements and Systems, 2009](#)
- [Manual: Use of Self-Propelled Modular Transporters to Remove and Replace Bridges, 2007](#)
- [PBES Cost Study: Accelerated Bridge Construction Success Stories, 2006](#)
- [Framework for Prefabricated Bridge Elements and Systems \(PBES\) Decision-Making, 2005](#)
- [Highways for LIFE Summary Reports](#)

## SEARCH

Google Custom Search

## UPCOMING EVENTS

October 15, 2018 – October  
18, 2018

**2018 CAMX – The  
Composites and  
Advanced Materials  
Expo – Dallas, TX**

October 18, 2018  
**ABC Methods for  
Delaware's All-  
Precast Bridge 1-438**

November 1, 2018  
**Accelerated Repair  
of Existing Bridges  
Using UHPC**





# ABC-UTC Website: Resources / FHWA

<https://abc-utc.fiu.edu/resources/fhwa/>

Links to FHWA Ultra-High Performance Concrete (UHPC) Publications:  
(FHWA UHPC Contact: Benjamin Graybeal, [Benjamin.Graybeal@dot.gov](mailto:Benjamin.Graybeal@dot.gov))

- [FHWA UHPC Website](#)
- [UHPC Deployments Across US and Canada](#)
- [Report: Properties and Behavior of UHPC-Class Materials, 2018](#)
- [Technical Note: Ultra-High Performance Concrete for Bridge Deck Overlays, 2018](#)
- [Report: Adjacent Box Beam Connections: Performance and Optimization, 2018](#)
- [Report: Field Testing of an Ultra-High Performance Concrete Overlay, 2017](#)
- [TechBrief: Adjacent Box Beam Connections: Performance and Optimization, 2017](#)
- [Technical Note: Bond of Field-Cast Grouts to Precast Concrete Elements, 2017](#)
- [Technical Note: Design and Construction of Field-Cast UHPC Connections, 2014](#)
- [TechBrief: Development of Non-Proprietary Ultra-High Performance Concrete for Use in The Highway Bridge Sector, 2013](#)
- [UHPC State-of-the-Art Report, 2013](#)
- [Technical Note: Ultra-High Performance Concrete, 2011](#)

**Every Day Counts (EDC)** – “EDC is designed to focus on a finite set of initiatives. Teams from FHWA work with state, local, and industry partners to deploy the initiatives and develop performance measures to gauge their success.” [More information ...](#)

**FHWA Incentive-Based Funding** – Three incentive-based funding mechanisms are available for owner agencies who are looking to implement innovations such as prefabricated bridge elements and systems and other ABC related strategies into their program/projects.

- **Accelerated Innovation Deployment (AID) grant:** Under this program, approximately \$15 million in incentive funds is being issued for innovation deployment [More information ...](#)

## Using UHPC

November 5, 2018 –  
November 7, 2018  
**2018 ASBI 30th  
Annual Convention -  
Chicago, IL**

November 5, 2018  
**Call for Abstracts -  
Extended  
Submission  
Deadline - 2nd  
International  
Interactive  
Symposium on  
UHPC - Albany, NY**

January 13, 2019 – January  
17, 2019  
**2019 TRB Annual  
Meeting -  
Washington, D.C.**

January 18, 2019  
**Call for Abstracts -**



# **ABC-UTC**

## **Quarterly Research Seminar**

Thursday, Nov. 1, 2018 – 1:00-2:00 p.m. Eastern

### **Accelerated Repair of Existing Bridges Using UHPC**

**Atorod Azizinamini, Ph.D., P.E.,** Principal Investigator

**Mahsa Farzad** , Ph.D. Candidate

**Alireza Valikhani**, Ph.D. Candidate

**ABC-UTC / Florida International University**

Register at: <https://abc-utc.fiu.edu>



# Next Monthly Webinar



Tuesday, November 13, 2018 – 1:00-2:00 p.m.  
Eastern

## Featured Presentation

# Tight Construction Windows for BNSF Railway Bridge 24.8 Replacement in Camas, Washington

by

**Alan Bloomquist, P.E.**, Assistant Director, Heavy Bridge  
Division, BNSF Railway; and **Jay Hyland, P.E.**, Vice  
President/Master Professional, TranSystems

**Please mark your calendars!**

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