

Strategic Development Council
Technology Forum 46 / August 27 - 29, 2019
The Kimpton Hotel Monaco in Pittsburgh, PA

agenda subject to changes

6/5/2019

Tuesday, August 27, 2019

- 1:00p 2:00p **Tour of The Frick Environmental Center - *Optional***
2017 Concrete Excellence Awardee: Low-Rise Buildings Category
- 5:00p 7:00p **Welcome Reception**

Wednesday, August 28, 2019

- 7:00a 8:00a Registration
- 7:30a 8:00a Breakfast
- 8:00a 8:15a **Welcome/Introduction: SDC Forum 46**
Charles S. Hanskat, SDC Board Chair
Executive Director
American Shotcrete Association
- 8:15a 8:45a **Technology Showcase: Integrated Design of Chemical Admixture Systems for Ultradurable, Low CO₂ Alternative Binder Chemistries via Machine Learning**
Newell Washburn, Associate Professor at Carnegie Mellon University
Kimberly Kurtis, Co-PI and Professor at Georgia Institute of Technology
- 8:45a 9:15a **Technology Showcase: Integrating Traditional Civil Engineering Practices with Artificial Intelligence: a Hybrid Approach to Enhancing our Understanding of Structural Behavior**
Stephanie Paal, PhD
Assistant Professor - Zachry Department of Civil and Environmental Engineering
Texas A&M University
- 9:15a 9:45a **Technology Showcase: Machine Learning - Prediction of Concrete Performance from Mixture Proportions**
Gaurav N. Sant
Associate Professor and Henry Samueli Fellow
UCLA Samueli School of Engineering
- 9:45a 10:15a --- **Break** ---
- 10:15a 10:45a **Technology Showcase: Strengthening Bridges and Existing Concrete Structures Using Titanium**
Jill Adkins
Infrastructure Development Manager
Perryman Company
- 10:45a 11:15a **Technology Showcase: Fiber-Reinforced Polymer Macrobbers Used in Precast Concrete**
Alvin C. Ericson, FACI, FPCI
Technical Consultant
ReforceTech
- 11:15a 11:45a **Presentation: Engineering Analysis for FRP Composite Solutions Using ACI 440.1R & ACI 544.4R Design Guides**
Roy L. Eriksson, P.E.
President/CEO
Eriksson Technologies, Inc.
- 12:00p 1:00p ----**Lunch**----
- 1:00p 3:30p **Panel Presentations: Use of Non-Metallic Reinforcement**
Moderator: Randall W. Poston, ACI President
Antonio Nanni, Ph.D., P.E., Inaugural Senior Scholar at the University of Miami
Steven Nolan, P.E., Senior Structures Design Engineer with the Florida DOT
Doug Gremel, Director of Engineering for Owens Corning
Steve Sieracke, President of Black Swamp Steel, Inc.
Representative of Saudi Aramco
Q&A with attendees
- 3:30p 4:00p --- **Break** ---

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Wednesday, August 28, 2019 continued . . .

- 4:00p 4:30p **Technology Showcase: TyBot - An Autonomous Rebar Tying Robot**
Stephen M. Muck, Co-Founder and CEO of Tybot, LLC, Chairman & CEO of Brayman Construction Corp.
Alternate: Jeremy L. Searock, Co-Founder and President of TyBot, LLC
TyBot, LLC; a wholly owned subsidiary of Advanced Construction Robotics, Inc.
- 6:00p 8:30p **Reception and Dinner**
UNION STANDARD RESTAURANT
524 William Penn Place
Pittsburgh, PA 15219

Thursday, August 29, 2019

- 7:00a 8:00a Registration
- 7:30a 8:00a Breakfast
- 8:00a 8:15a **TMC Update**
Carl J. (Chuck) Larosche
TMC Chair
WJE
- 8:15a 8:45a **Presentation: Value Proposition of GFRP Rebar in Bridge Decks**
Doug Gremel
Director of Engineering
Owens Corning | Infrastructure Solutions LLC
- 8:45a 9:15a **Presentation: Research Update & Code Changes for High Strength Steel Reinforcement**
to be confirmed
- 9:15a 9:45a **Presentation: Research Update & Dissemination Efforts for Reduced Cracking**
to be confirmed
- 9:45a 10:15a --- **Break** ----
- 10:15a 11:45a **Open Breakout Sessions: Strategy and Road Mapping**
Concurrent Sessions planned for:
Reinforcement: non-metallic & non-ferrous technologies
Future Technologies: computer visioning/artificial intelligence
- 11:45a 12:00p **Wrap-up and review**
12:00p **Adjourn**