Technology Forum 46

August 28-29, 2019 • Kimpton Hotel Monaco – Pittsburgh, PA

All meetings are located on the lobby level unless noted

Strategic Development Council / **aci Foundation**

Tuesday, August 27, 2019

	12:30 pm	Meet in Lobby for Tour Transportation
Tour	1:00 pm – 2:00 pm	Tour of The Frick Environmental Center — Optional
Rialto Rooftop & Suite – 9th floor	5:00 pm – 7:00 pm	Welcome Reception

Wednesday, August 28, 2019

Sheffield Foyer	7:00 am – 8:00 am	Registration
	7:30 am – 8:00 am	Breakfast
Sheffield Ballroom	8:00 am – 8:15 am	Welcome/Introduction: SDC Forum 46
		Charles S. Hanskat, SDC Board Chair; Executive Director, American Shotcrete Association
	8:15 am – 8:45 am	Technology Showcase: Integrated Design of Chemical Admixture Systems for Ultradurable, Low CO_2, 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
	8:45 am – 9:15 am	Technology Showcase: Integrating Traditional Civil Engineering Practices with Artificial Intelligence: a Hybrid Approach to Enhancing our Understanding of Structural Behavior
		Stephanie Paal, Ph.D., Assistant Professor, Zachry Department of Civil and Environmental Engineering, Texas A&M University
	9:15 am – 9:45 am	Technology Showcase: Machine Learning - Prediction of Concrete Performance from Mixture Proportions
		Gaurav N. Sant, Professor and Henry Samueli Fellow, UCLA Samueli School of Engineering
	9:45 am – 10:15 am	— Break —
	10:15 am – 10:45 am	Technology Showcase: Strengthening Bridges and Existing Concrete Structures Using Titanium
		Jill Adkins, Infrastructure Development Manager, Perryman Company
	10:45 am – 11:15 am	Technology Showcase: Fiber-Reinforced Polymer Macrofibers Used in Precast Concrete
		Alvin C. Ericson, FACI, FPCI; Technical Consultant, ReforceTech
	11:15 am – 11:45 am	Presentation: Engineering Analysis for FRP Composite Solutions Using ACI 440.1R & ACI 544.4R Design Guides
		Robert Slade, P.E.; Senior Structural Engineer, Eriksson Technologies, Inc.
Sofia Ballroom	12:00 pm – 1:00 pm	— Lunch —
Sheffield Ballroom	1:00 pm – 3:30 pm	Panel Presentations: Use of Non-Metallic Reinforcement
		Moderator: Randall W. Poston, ACI President Antonio Nanni, Ph.D., P.E., Inaugural Senior Scholar, University of Miami Steven Nolan, P.E., Senior Structural Design Engineer, Florida DOT Doug Gremel, Director of Engineering, Owens Corning Steve Sieracke, President, Black Swap Steel, Inc. Mohammed Al Mehthel, Principal Professional, Saudi Aramco
		Panel Q&A - Group Discussion
	3:30 pm – 4:00 pm	— Break —
	4:00 pm – 4:30 pm	Technology Showcase: TyBot - An Autonomous Rebar Tying Robot
		Stephen M. Muck, Co-Founder and CEO of TyBot, LLC, Chairman & CEO of Brayman Construction Corp.
	6:00 pm – 8:30 pm	Dinner at Union Standard 524 William Penn Place Pittsburgh, PA 15219

Thursday, August 29, 2019

Location	Time	Session
Sheffield Foyer	7:00 am – 8:00 am	Registration
	7:30 am – 8:00 am	Breakfast
Sheffield Ballroom	8:00 am – 8:15 am	TMC Update / Review
		Carl J. Larosche, TMC Chair, Principal, WJE, Inc.
	8:15 am – 8:45 am	Presentation: Value Proposition of GFRP Rebar in Bridge Decks
		Doug Gremel, Director of Engineering, Owens Corning
	8:45 am – 9:15am	Presentation: Research Update & Code Changes for High Strength Steel Reinforcement
		Gregory Zeisler, Engineer & Secretary for ACI 318, American Concrete Institute
	9:15 am – 9:45 am	Presentation: Research Update & Dissemination Efforts for Reduced Cracking
		David Darwin, Ph.D., P.E., F.SEI, Hon.M.ACI, Dist.M.ASCE
		Deane E. Ackers Distinguished Professor and Chair, University of Kansas
	9:45 am – 10:15 am	— Break —
Sheffield Ballroom	10:15 am – 11:45 am	Open Breakout Sessions: Strategy and Road Mapping
		Reinforcement: Non-Metallic & Non-Ferrous Technologies
Sofia Ballroom		Future Technologies: Computer Visioning/Artificial Intelligence
	11:45 am – 12:00 pm	Wrap-up and Review
	12:00 pm	Adjourn