Building the Future:

aci Foundation

ACI Foundation Announces New Trustees and Re-Election of the Chair of Trustees

The ACI Foundation announced new Trustees and the re-election of an existing Trustee to its Board. The Trustees re-elected **Jeffrey Coleman** as Chair of Trustees and elected **Brett McMahon** as a new Trustee. ACI Vice President **Maria Juenger** also joins the Trustees as part of her new role. They join Khaled Awad, Ronald Burg, Robert Frosch, Keith Kesner, Michael Paul, and William Rushing Jr. on the ACI Foundation Board of Trustees.

Coleman

McMahon

Juenger

Jeffrey Coleman, FACI, is a licensed professional engineer, attorney at law, and CEO of Coleman & Erickson, LLC. He is a Fellow of ACI and has been an ACI member for more than 40 years. Coleman is the author of *Legal Issues in Concrete Construction*, published by ACI in 2004 (second edition published in 2014).

Coleman served as ACI Vice President from 2018 to 2020 and ACI President from 2020 to 2021. He has also served as a member of the ACI Board of Direction and member of ACI Committee 301, Specifications for Concrete Construction. Coleman has also served as a member of the ACI Contractors Liaison Committee (CLC); TAC Specifications Committee; Financial Advisory Committee (FAC); Conventions Committee; and was Chair of the Responsibility in Concrete Construction Committee (now Committee 132), where he continues as a member.

Coleman completed his law degree in 1984, and in 2013, he founded The Coleman Law Firm, LLC (now Coleman & Erickson, LLC), where he is committed to continuing his representation of engineers, architects, and the concrete construction industry, including concrete contractors and suppliers.

Coleman is a past President of the Minnesota Concrete Council (MCC) and a former board member. He is also a sustaining member of the American Society of Concrete Contractors (ASCC). Coleman is a past member of the University of Minnesota Concrete Conference Planning Committee. In 2020, he was recognized by *Concrete Construction* magazine as one of "The Year's Most Influential People" in the concrete industry.

Brett McMahon is the Chairman & CEO of Miller & Long Co. Inc., in Bethesda, MD, USA. The 76-year-old company specializes in placing cast-in-place concrete for multi-level office and residential buildings, parking garages, and mixed-use developments. With operations throughout the metropolitan Washington, DC, USA-area, Miller & Long regularly employs over 1500 people on a volume exceeding $280 million annually.

Under McMahon's leadership, Miller & Long has received over 30 awards for its expertise in commercial construction, including awards from ACI and Associated Builders and Contractors (ABC).

McMahon has held volunteer leadership positions at numerous business and construction industry organizations in the metropolitan Washington, DC-area, including the DC Workforce Investment Council and the Montgomery Business Development Partnership. He has served on multiple industry-related boards, including the DC Chamber of Commerce, ABC, ABC Insurance Trust, and the DC Building Industry Association (DCBIA).

McMahon is a veteran of the U.S. Air Force and the Maryland Army National Guard and is fully committed to U.S. service members. He recently served on the Board of the Yellow Ribbon Fund, a nonprofit organization providing services for injured warriors throughout their recovery process. He serves on the Board of HEROES, Inc.®, a volunteer organization dedicated to assisting the families of fallen emergency responders.

Maria Juenger, FACI, is the L.B. (Preach) Meaders Professor of Engineering in the Department of Civil, Architectural, and Environmental Engineering at The University of Texas at Austin, Austin, TX, USA. Juenger's teaching and research focus on materials used in civil engineering applications. She primarily examines chemical issues in cement-based materials, including phase formation in cement clinkering, hydration chemistry of cement and supplementary cementitious materials, and chemical deterioration processes in concrete. Her current research efforts emphasize the interaction of cement-based materials and the environment. This work encompasses the development and characterization of cementitious systems with lower carbon dioxide and energy footprints, as well as the capacity of cementitious materials to produce or remove airborne and waterborne pollutants.

As an ACI Vice President, Juenger serves on both the ACI Executive Committee and the ACI Board of Direction. She is a Fellow of ACI and the American Ceramic Society (ACerS). She is a member of numerous ACI committees and has received several awards from ACI for her research, teaching, and service, including the 2009 Walter P. Moore, Jr. Faculty

Achievement Award, 2010 ACI Young Member Award for Professional Achievement, 2011 Wason Medal for Materials Research, 2018 Delmar L. Bloem Distinguished Service Award, and 2020 ACI Concrete Sustainability Award. She has also received a Faculty Early CAREER Award from the National Science Foundation. She is on the Editorial Boards of both *Cement and Concrete Research* and *Cement and Concrete Composites*.

ACI Foundation Announces ACI Foundation Fellowship and Scholarship Awardees

This year, the ACI Foundation awarded 19 fellowships and 14 scholarships to students from 27 different institutions. Fellowship recipients receive a 10,000 USD educational stipend (Daniel W. Falconer Memorial Fellowship receives 15,000 USD), paid travel expenses and attendance fees to two ACI conventions, and assistance in finding a mentor. Scholarship recipients receive a 5000 USD educational stipend. For details about each awardee, visit the article on p. 23. All past and new awardees are listed at **www.acifoundation.org/scholarships**.

For students interested in applying for the ACI Foundation's 2024-2025 Fellowships and Scholarships, the online application process will open on July 5, 2023, and close on November 1, 2023, at 11:59 p.m. EST. For more information, email acif@acifoundation.org.

The ACI Foundation's Fellowship and Scholarship Program has been successful in securing high-potential students to engage in the field of concrete with education and involvement in the ACI community. The students are awarded based on original essays, academic performance, and endorsements from ACI members and professors/supervisors. The ACI Foundation's Scholarship Council will grant thousands of dollars in fellowships and scholarships to candidates who have the strongest combination of interest and potential for professional success in the concrete industry.

Fellowship recipients have the option of being paired with a mentor in their area of study, whether it be industry or academic. The ACI Foundation is always looking for new and enthusiastic mentors. If you are interested in becoming a mentor, the guidelines and application can be found at **www.acifoundation.org/scholarships.aspx**.

2023 Technology Forum

The ACI Foundation's Concrete Innovation Council (CIC) focuses on new technology and innovation. The CIC will host its next Technology Forum from August 29 to August 31, 2023, in Portland, OR, USA. This year's forum offers 15 presentations that highlight new technologies, advances in research, and new test standards. Current topics include carbon-neutral concrete, in-place strength testing, and artificial intelligence (AI).

The technology showcases will include:

- Argyle: A BIM to AR Program for the Field, by Maret Thatcher of Argyle;
- Carbon Capture of CO_2 from Gas Streams, by Brittany Zimmerman, Yummet;
- Rebel Sensor System: Measuring Real-Time In-Place Concrete Strength, by Luna Lu, Purdue University and Wavelogix;
- Sublime: Decarbonizing Cement and the Co-Production of Green Hydrogen, by a Sublime Systems representative; and
- SmartRock Pro: Wireless Sensor Measuring In-situ Concrete Strength, by Sarah De Carufel, Giatec Scientific Inc.

The presentations will include:

- How Do Venture Capitalists Evaluate Technologies for Investment? by Curtis Rogers, Brick & Mortar Ventures;
- Advances for the Use of Basalt Fibers & Rebar, by Alvaro Ruiz Emparanza, University of Miami;
- CCUS and Innovative Materials: The Building Blocks for Net-Zero Concrete, by Emily Kunkel, Thornton Tomasetti;
- Lessons Learned in Development of Innovations, by Sean Monkman of CarbonCure Technologies Inc.;
- Framework for Characterizing the Performance of High-Early Strength, High-Volume Fly Ash Concrete Structures, by Matthew J. Gombeda, Illinois Institute of Technology; and
- Using Machine Learning to Automate Design Tasks, by Brad Malmsten, Thornton Tomasetti.

For more information and to view the schedule and register, visit **www.acifoundation.org/technology**.

ACI Foundation Funds 11 New Research Projects

The Concrete Research Council (CRC) seeks concrete research projects that further the knowledge and sustainability of concrete materials, construction, and structures; and supports the research needs of ACI technical committees. This year, the Foundation is granting funds for 11 new research projects.

The new funded research projects include:

- "Alternative End-specimen Conditions to Characterize Compressive Strength of Ultra-High-Performance Concretes," PI: Kinsey Skillen, Texas A&M University;
- "Behavior of Slab-Column Connections under Wind Demand," PI: Christopher Motter, Washington State University;
- "Direct Tension Test Results and In-Situ Response in

Reinforced UHPC Beams: Relationship and Design Implications," PI: Sherif El-Tawil, University of Michigan;
- "Evaluating Residual Strength of Corrosion-Damaged Reinforced Concrete Members," PI: Anca-Cristina Ferche, The University of Texas at Austin;
- "Nano-Modified Calcined Clay-Based Cement Concrete—A High Modulus Concrete with Low Carbon Footprint," PI: Panagiotis Danoglidis, The University of Texas at Arlington;
- "Novel Concrete Containments for Nuclear Reactors," PI: Christopher Jones, Kansas State University;
- "Proposal for Research Project to Investigate ICF Wall Construction Meeting the Requirements of NFPA 285 – Phase II," PI: Shamim Rashid-Sumar, National Ready Mixed Concrete Association;
- "Rheological Behavior of Fresh Ultra-High-Performance Concrete (UHPC) Enhanced by Nano-Additives and Data-Driven Approaches," PI: Chengcheng Tao, Purdue University;
- "Strut-and-Tie Design of Disturbed Regions Utilizing Internal Fiber-Reinforced Polymer Reinforcement," PI: Rudolf Seracino, North Carolina State University;
- "Sustainable and Safe Reinforced Concrete Retaining Walls," PI: Luis Fargier-Gabaldón, University of Notre Dame; and
- "The Role of Testing Conditions and Concrete Durability Issues in Chloride Binding and Desorption of Cementitious Systems," PI: Mahmoud Shakouri, Colorado State University.

To learn more about the project teams, research details, and connection to ACI technical committees, visit **www.acifoundation.org/research**.