

ACI Foundation Funds Eight New Research Projects

The ACI Foundation's Concrete Research Council (CRC) selected eight research projects to receive grants this year. The CRC seeks concrete research projects that further the knowledge and sustainability of concrete materials, construction, and structures in coordination with ACI technical committees.

The following research projects will receive funding from the ACI Foundation and were awarded based on relevancy and potential impact of the research; supplemental support for the project, such as collaboration with other funders and organizations; overall proposal quality; researcher capability; and ACI technical committee engagement:

- A Planning Study to Speed Up Broad Implementation of More Sustainable and Resilient Concrete Materials by the Pavement Sector, PI: Somayeh Nassiri, University of California, Davis, endorsed by ACI Committee 240, Pozzolans;
- Examining the Abrasion and Carbonation Resistance of Portland Limestone Cement Systems for Industrial Floors, PI: Mehdi Khanzadeh Moradillo, Temple University, endorsed by ACI Committee 225, Hydraulic Cements;
- Three- versus Four-Point Bending Test for the Identification of UHPFRC/FRC Tensile Constitutive Behavior, PI: Francesco Lo Monte, Politecnico di Milano, endorsed by ACI Committee 544, Fiber Reinforced Concrete;
- Leveraging Transfer Learning to Predict the Performance of Novel Concrete Mix Designs in an Expeditious Manner, PI: Stephanie Paal, Texas A&M University; endorsed by ACI Committee 135, Machine Learning-Informed Construction and Design;
- Ultra-High Performance Concrete Compressive Model in Flexural Compression Zone, PI: Yi Shao, McGill University, endorsed by ACI Committee 239, Ultra-High-Performance Concrete;
- Analysis and Design of Concrete Bridge Deck Overhang Using GFRP Bars, PI: Khaled Sennah, Toronto Metropolitan University, endorsed by ACI Committee 440, Fiber-Reinforced Polymer Reinforcement, and Joint ACI-ASCE Committee 343, Concrete Bridge Design;
- Experimental Investigation of Use of UHPC to Simplify Structural Detailing of Precast Shear Walls in Seismic Regions, PI: Sriram Aaleti, The University of Alabama, endorsed by Joint ACI-ASCE Committee 550, Precast Concrete Structures; and
- Strength Reduction Factor for Plain Concrete, PI: Andrzej Nowak, Auburn University, endorsed by ACI Committees 332, Residential Concrete Work; 348, Structural Reliability

and Safety; and 380, Structural Plain Concrete.

The ACI Foundation is committed to industry progress by contributing financially to necessary and worthy research. For additional information about each of this year's awarded projects, including additional funding partners, research teams, ACI committee involvement, and project details, visit www.acifoundation.org/research.

Donor Spotlight: Michelle Wilson



Wilson

Michelle Wilson, FACI, is the Senior Director of Concrete Technology and Industry Outreach for the Portland Cement Association (PCA) and the primary author of PCA's *Design and Control of Concrete Mixtures*. Serving on multiple ACI committees, including as past Chair of ACI Committee 301, Specifications of Concrete Construction (2016-2020), Wilson has been highly

involved with ACI and the ACI Foundation throughout her successful career. She received the 2008 ACI Young Member Award for Professional Achievement, was honored as a Fellow of ACI in 2010, received the 2022 ACI Arthur R. Anderson Medal, and was a member of the ACI Board of Direction from 2018 to 2021.

Prior to joining PCA in 1999, she worked for Construction Technology Laboratories (CTLGroup), in Skokie, IL, USA. Prior to CTLGroup, she worked as a Field Inspector performing quality control for STS Consultants, Ltd., in Milwaukee, WI, USA, after receiving her degree in architectural engineering from the Milwaukee School of Engineering, Milwaukee, WI.

In the spring of 1999, she attended her first ACI Concrete Convention in Chicago, IL. That fall, she joined PCA and, on her first day, attended the ACI Concrete Convention in Baltimore, MD, USA.

"I was very intimidated at ACI at first, and at the time, I wasn't sure where to get involved. Because my background was in inspection, I attended the ACI Committee 311, Inspection of Concrete, as my very first committee meeting. Mike Russell (former Senior Vice President of STS Consultants, Ltd.) was the Chair. It was helpful to have someone greet me right away and make me feel welcomed onto the committee."

Wilson took advantage of her connections within PCA to make other important industry connections, which helped further her career as a young professional.

"At the time, Anne Ellis (CEO of Ellis Global) also worked for PCA and helped me make many connections during my first conventions. Anne introduced me to Calvin McCall, who

urged me to attend ACI Committee 301, Specifications for Concrete Construction. I thought he was going to say, ‘We need more women,’” she laughed. “But he said, ‘We need more young blood.’ I joined 301 that Sunday, and I still haven’t left 20+ years later.”

Wilson actively participates in ACI Foundation pursuits in new technology/innovation and research. She serves on the ACI Foundation’s Concrete Research Council where volunteers seek concrete research projects that advance the knowledge of concrete materials, construction, and structures. She attends and has presented at the annual Technology Forum, hosted by the ACI Foundation’s Concrete Innovation Council, where like-minded individuals gather to hear about new technologies, discuss industry needs and challenges, and understand where innovation can bridge gaps. Besides lending her technological expertise and industry insight to ACI Foundation initiatives, the activities also keep her tuned in to industry developments, research needs, and emerging technologies.

“My entire career is based on what’s going on in technology, and I must be at the pulse of the industry. When serving on ACI committees, we are constantly discussing current technology, keeping things up to date, and making sure our processes are relevant,” she said. “It’s not just best practice guides. It’s the contract documents of our future, and that’s especially important to me.”

For Wilson, it’s not just the subject matter that she loves—it’s the people in the room, too.

“I’ve gotten to work with some of my idols. I’ve had the honor of meeting Bryant Mather, and I’ve had the pleasure of collaborating with ‘the Ward Malischs and the Ken Hovers,’ all prominent and influential technical members of the

concrete community. They mentored me during my early career, enhancing my opportunities. Over 25 years, I’ve made some of my best friends through my industry work. These are the people that I text on a Sunday about an article in *CI* while we’re supposed to be watching the Super Bowl. I get to work on standards with designers, materials producers, contractors, and the people leading our next generation as professors.”

“ACI helped me build my career to what it is now. I grew through the service I gave to the committees as well as learning from the people around me.”

Wilson is also a mentor at ACI. Of the many students, she is proud to have mentored 2002-2003 ACI Foundation Student Fellowship Awardee Raissa Ferron (The University of Texas at Austin, Austin, TX, USA), who is a Fellow of both PCA and ACI, and currently serves on the ACI Foundation’s Scholarship Council.

“I think very highly of the Foundation’s student program and ACI’s young professional program,” said Wilson. “These are some of the best programs of any association. There are many opportunities for young members and students to attend and participate in ACI Concrete Conventions. The student competitions draw large crowds, but students are also attending sessions and presenting their research. My advice to students and young professionals is to be confident and go to the appropriate committees. It’s the committee work that’s really the heart of ACI.”

Wilson believes that donating and mobilizing others to donate to the ACI Foundation lays the groundwork for a bright future while honoring the past.

“It’s important to give back. When I donate to the ACI Foundation, the money is going to the students and industry research. I believe in that. It’s also important to honor the legacy of those who came before me. The Michael Thomas Concrete Durability Award was important for me to champion,” she said.

The Michael Thomas Concrete Durability Award was established in 2023 and championed by Wilson and Doug Hooton (Professor Emeritus of civil and mineral engineering at the University of Toronto and Natural Sciences and Engineering Research Council of Canada/Cement Association

The ACI Foundation is a 501(c)(3) nonprofit organization that supports a wide range of research and educational initiatives that contribute to keeping the concrete industry at the forefront of technological advances in material composition, design, and construction. We engage with industry partners, invest in students and research, share knowledge, and provide programs to encourage innovation and new technology. ACI established the ACI Foundation in 1989 to promote progress, innovation, and collaboration in the industry.

To contribute to the Foundation’s mission and for more information, contact Kari Martin, ACI Foundation Fundraising Manager, at kari.martin@acifoundation.org or +1.248.848.3757, or visit www.acifoundation.org/giving.

Plan Your Legacy

Have you thought about the advancement of the concrete industry in the years to come? The ACI Foundation programs focus on building the future of the concrete industry and rely on organizations and individuals like you who want to pay it forward and give back to the industry that you helped advance and for which you have a passion.

- A gift to the ACI Foundation is an opportunity to invest in the next generation of leaders, new technical knowledge, and innovation.
- A gift to the ACI Foundation as part of your financial plan, whether through your estate, will, donor-advised fund, cash, stocks, bonds, insurance, or other retirement assets, will carry your technical legacy into the future of the concrete industry.

It's never too early to plan your legacy. Contact Kari Martin, ACI Foundation Fundraising Manager, at +1.248.848.3757 or kari.martin@acifoundation.org to start the conversation.

of Canada [NSERC/CAC] Industrial Research Chair in Concrete Durability and Sustainability). This award honors outstanding contributions to the advancement of knowledge in concrete durability.

“Michael was a close colleague and mentor of mine. He made significant contributions to PCA and CAC research and supported our causes on portland-limestone cement (PLC), blended cement, and alkali-silica reaction (ASR) mitigation

amongst other topics over the past 25 years. Both PCA and the National Ready Mixed Concrete Association pledged. Once they did, it was easy to galvanize the others by asking, ‘We’re doing this! Don’t you want to be part of it?’ It means a lot when individuals donate to awards like the Michael Thomas Concrete Durability Award and fellowships and scholarships through the ACI Foundation. These awards are what keeps our industry going,” Wilson concluded.



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