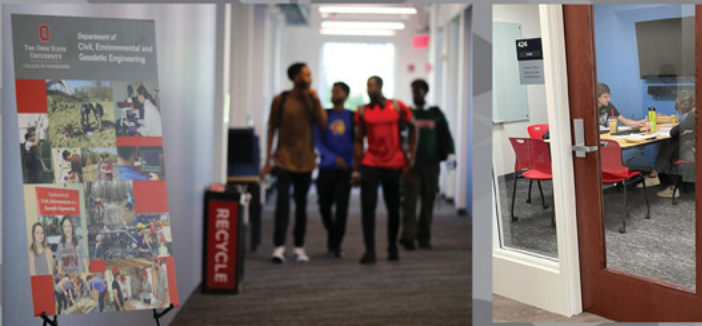


# Bench marks

DEPARTMENT OF CIVIL, ENVIRONMENTAL  
AND GEODETIC ENGINEERING

summer 2023



 THE OHIO STATE UNIVERSITY  
COLLEGE OF ENGINEERING



**Department of Civil, Environmental and Geodetic Engineering**  
The Ohio State University  
470 Hitchcock Hall | 2070 Neil Avenue | Columbus, OH 43210  
ceg.osu.edu

On the cover: CEGE students, faculty and staff build community in the Kokosing Design Center. Learn more about this vibrant, new space on pages 6-7.

## TO ALUMNI AND FRIENDS

Dear alumni and friends,

This year I am enjoying the opportunity to teach our Professional Issues course. Through some assigned reflection activities, I have learned the common motivation that inspired our current students on a pathway to careers in the civil, environmental and geodetic engineering professions – the desire to build a better world. Such service to society is the factor that I also hear to be most satisfying to our alumni professionals.

This issue of *Benchmarks* highlights the many ways that students, faculty, alumni and friends are building a better world, such as:

- Creating state-of-the-art spaces for experiential student learning;
- Supporting and mentoring peers through podcasts and professional experiences;
- Protecting communities vulnerable to infrastructure failures and pollutant exposures, and
- Advancing research discovery with innovations in geospatial measurements, energy management and climate modeling.

Additionally, we have welcomed our return to social activities this year with the removal of COVID-19 pandemic restrictions. We launched the year with a well-attended student welcome event and a successful career fair dedicated to Construction, Civil and Environmental Engineering employers. The Industry Mentor program has grown in participation. Student clubs excelled during spring competition.



Our conference travel support program for graduate students is reinstated. I have enjoyed connecting and meeting new Buckeyes at university events and the annual OTEC meeting.

In closing, I invite you to keep in touch – let us know about your accomplishments, volunteer as an Industry Mentor (<https://ceg.osu.edu/alumni-friends/industry-mentor-program>), or support our student groups and scholarships (<https://ceg.osu.edu/alumni-friends/buckeyes-give>).

Best regards,

**Allison A. MacKay**  
Professor and Chair  
Department of Civil, Environmental and Geodetic Engineering

# CEGExperiences



**(1)** PhD student and Graduate Research Associate **Daniel Ma** (L) conducts drinking water demonstrations for families at the Portsmouth, OH Public Library, August 2022. *Photo courtesy of Natalie Hull*  
**(2)** **Charles Toth**, research professor of geodetic engineering, was named a Fellow of the Institute of Navigation (ION) in January, 2022. *Photo courtesy of Institute of Navigation*

**(3)** Students attend the COE Block Party, held on the Knowlton Plaza, August 2022.  
**(4)** **Pat Ellis** (BS '75 CE, second from left) and family show their Buckeye pride at the Dean's Tailgate, September 2022. *Photo courtesy of COE Communications*

**(5)** Environmental engineering undergraduate student **Lilly Des Rosiers** addresses attendees at the 2022 College of Engineering Scholarship Luncheon, April, 2022. *Photo courtesy of COE Communications.*

**(6)** Members of Ohio State's Women's Ice Hockey team, including CECE students **Sophie Jaques** (4th from R) and **Lauren Bernard** (far R) celebrate their 2022 national championship during halftime of an Ohio State football game, September 2022. *Photo courtesy of Ohio State Athletics.*  
**(7)** **Mahantesh Hiremath** (MS '84, PhD '87, CE) discusses engineering career paths with CECE students, November, 2022. Hiremath is the Vice President of SC Solutions, Sunnyvale, CA and past president of the American Society of Mechanical Engineers (ASME).

**(8)** A contingent of CECE faculty and students attend the Association of Environmental Engineering and Science Professors (AEESP) conference, July 2022. Back row, L to R, Assistant Prof. **Daniel Gingerich**, **Daniel Ma**, Associate Prof. **Andy May** Front row, L to R, **Dane Elliott**, Prof. **Allison MacKay**, **Yijing Liu**, **Juan Xu**, not pictured: Assoc. Prof. **Jeffrey Bielicki** and Assistant Prof. **Natalie Hull**. *Photo courtesy of Allison MacKay*  
**(9)** Members of CECE's Steel Bridge Team give their efforts a thumbs up during a demonstration for faculty and students, April 2022.



# LEARNING ENVIRONMENTS

## CEGE COMMUNITY CELEBRATES NEW 24/7 HUB FOR STUDENTS



Donors, alumni, students, faculty and staff attend the Kokosing Design Studio ribbon cutting.

On October 16, 2021, donors and friends of the Department of Civil, Environmental and Geodetic Engineering joined students and faculty to officially open the Kokosing Design Studio. The new 14,000 square foot facility features numerous student collaboration spaces, a cafe and lounge area, advising suite and a multipurpose computer lab and design studio.

Describing how this new facility would be an integral part of the CEGE student experience, Dean Ayanna Howard stated that "spaces like this really allow the students to focus on the task at hand, and not on walls that may impede their progress."

- Story continues on page 7



(L to R) Dean Ayanna Howard and Deborah and Pat (BS '75, civil engineering) Ellis chat with CEGE Chair Allison MacKay

During the ceremony, Professor of Practice and COE Associate Dean of Facilities and Capital Planning Michael Hagenberger recalled early discussions with alumni and industry leaders about the long-standing need for a space where CEGE students could meet and work together.

"Without all of the support of our donors, we could not have made this happen," he said.



Sherri and Brian Burgett in the Kokosing Design Studio.

**Brian Burgett** (BS' 69, civil engineering), chairman of Kokosing, participated in those early discussions, which were augmented by renderings of the proposed space as well as examples of initial momentum for the project enabled by other donors. He liked what he heard.

"From the plan, you could see that this facility was something that could really enhance students' educational experience," he recalled. "We got excited about that."



Scan code to learn more

Bolz Hall renovation powered by alumni and donor support



# DLZ CORPORATION GIFT SUPPORTS STUDENTS'

## EXPERIENTIAL LEARNING



(L to R) graduate student Jarron Mihoci, Assistant Professor Lisa Burris, DLZ Founder and Chairman Raj Rajadhyaksha, DLZ Executive Vice President Ram Rajadhyaksha, COE Dean Ayanna Howard, Professor and Chair Allison MacKay, Assistant Professor of Practice Jieun Hur, and graduate student Mazin Mahrouqi celebrate the official opening of the DLZ Corporation Civil Materials Testing Laboratory

In a continuing effort to upgrade its teaching and laboratory facilities, CEGE officially opened the DLZ Corporation Civil Materials Testing Laboratory on September 30, 2022.

Made possible by a generous donation by Columbus-based DLZ Corporation, the facility enables students to test a variety of materials, including metals, wood, aggregates, and concrete.



Materials and equipment await students in the DLZ Civil Materials Testing Laboratory

CEGE Chair Allison MacKay emphasized the lab's capacity for a variety of procedures, including compression and tension tests, and tests for both fresh and hardened concrete.

"Students have the opportunity to see materials' behavior first hand, and then integrate that into their design," she said.

Addressing those gathered for the event, DLZ Executive Vice President **Ram Rajadhyaksha** (BS '06, civil engineering) stated that DLZ was honored to be part of the project.



"One of the things that attracted us was that DLZ is growing and looking for talented students to join the workforce," he offered. "We're very grateful for our partnership with Ohio State."

The newly renovated lab brings undergraduate lab sections, student research, and specialized competition teams together in one space.

"It's wonderful to have a lab space we can be proud of, that we can call home," enthused Assistant Professor Lisa Burris.

[Learn more about DLZ](#)



# ALUMNI ACHIEVEMENT

## COLLEGE OF ENGINEERING HONORS OUTSTANDING ALUMNI

Two CEGE alumni were among 15 (2021) and 16 (2022) Buckeye engineers recognized as pioneers, innovators and leaders during the College of Engineering's 24th and 25th Annual Excellence in Engineering and Architecture Awards. The honors recognize exceptional alumni from across the College of Engineering who have achieved distinction in their fields or through their extraordinary service contributions since graduating from The Ohio State University.

Dean Ayanna Howard welcomed the recipients and their families back to in-person celebrations of the Buckeye engineering community. "These Buckeyes not only inspire us and make us proud, they also illustrate how engineers, architects and planners benefit society and improve our world," she stated.

Entrepreneurial engineer **Ed Smariga** (BS '72, civil engineering) was awarded the 2021 Distinguished Alumni Award for Career Achievement. Smariga is the founder and managing member of Buckeye Development, a commercial and residential land development corporation in Frederick, Maryland. Previously, he co-founded Harris Smariga and Associates and grew the firm to employ more than 50 professional engineers, planners and surveyors.

Mr. Smariga and his family were enthusiastic supporters of CEGE's recently-opened Kokosing Design Studio, a 24/7 collaboration and community space for CEGE students.



(L to R) Dean Ayanna Howard and Ed Smariga  
Photos courtesy of COE Communications

**Rudolph P. Frizzi** (BS '85, civil engineering) is a managing principal and executive vice president at LANGAN Engineering and Environmental Services. During his 35-plus years in industry, Frizzi has provided civil, geotechnical, expert and forensic engineering consultation on projects located on practically every continent, including skyscrapers, sports arenas and stadiums, vehicular tunnels and deep excavations.

In the Buckeye tradition of paying forward, Mr. Frizzi serves on CEGE's Geotechnical Engineering Advisory Board. The group, which includes leaders from industry, government and research, works with departmental faculty to enhance the educational experience for CEGE's students.

Adapted from content supplied by COE Communications.



(L to R) Dean Ayanna Howard and Rudolph (Rudy) Frizzi



Emily Marron

**Emily Marron, PhD** (BS '12, environmental engineering) joined the University of Utah faculty in July 2021. As an assistant professor of environmental engineering, Prof. Marron leads introductory courses and relevant lab sections and conducts research that evaluates advanced wastewater treatment for potable water reuse, with the goal of optimizing contaminant removal.

Prior to her appointment in Utah, Marron earned a MSc in environmental science at the Swiss Federal Institute of Technology (ETH Zurich) and a PhD in environmental engineering from the University of California, Berkeley. Prof. Marron also served as a postdoctoral fellow at Stanford University's Woods Institute for the Environment. *Photo courtesy of the University of Utah*



Sarah Haines

**Sarah Haines, PhD** (BS, 2017, environmental engineering, MS, 2019, Environmental Science Graduate Program [ESGP], PhD, 2021, ESGP) joined the faculty in the Department of Civil and Mineral Engineering at the University of Toronto in the summer of 2021. Prof. Haines' research integrates building science, engineering, and microbiology to analyze the impact the built environment has on human health.

Her research team seeks to better understand indoor exposures from microorganisms and chemicals, providing for a cleaner and more sustainable indoor environment, work she initiated while serving as a researcher in CEGE's Indoor Environmental Quality Laboratory.

*Photo courtesy of the University of Toronto.*



Jeffrey Blair

**Jeffrey Blair, PE** (BS, 2008, civil engineering) was named vice president of acquisitions integration for Bowman Consulting Group in December, 2021. Based in Reston, VA, Bowman transitioned to a publicly-traded company in May, 2021 and, since that time, has actively acquired other engineering firms. Mr. Blair will collaborate with Tim Vaughn, Bowman's executive vice president of acquisitions, to identify and transition other firms under the Bowman banner.

Prior to his time at Ohio State, Blair earned an associated degree in civil construction technology at Belmont Technical College. He is registered as a professional engineer in North Carolina and South Carolina. *Photo courtesy of Bowman Consulting.*



Celeste Chavis

**Celeste Chavis, PhD** (BS, 2007, civil engineering), was named interim associate dean for undergraduate studies at Morgan State University in January, 2021. An associate professor who holds a joint appointment in the Departments of Transportation & Urban Infrastructure Studies and Civil Engineering, Prof. Chavis conducts research on transportation operations, safety, and performance metrics for multimodal transportation systems through an equity lens.

In addition to her degree from Ohio State, Chavis earned her MS and PhD in civil and environmental engineering from the University of California, Berkeley. She is a licensed engineer in the state of Maryland. *Photo courtesy of Morgan State University.*



Matthew C. Riethmiller

**CAPT Matthew C. Riethmiller** (BS, 2006, civil engineering), was installed as commanding officer of Naval Facilities Engineering Systems Command Mid-Atlantic on July 20, 2022, aboard USS Bataan (LHD 5) at Naval Station Norfolk (VA.) Riethmiller was commissioned on November, 1996 through the Officer Candidate School in Pensacola, FL. During his career, he has served in numerous assignments and tours in the United States and abroad. He is the recipient of numerous commendations, including the Meritorious Service Medal and the Navy Commendation Medal. A registered professional engineer in North Carolina, Riethmiller also holds an MS in environmental engineering from Old Dominion University.

*Photo courtesy of U.S. Navy*



## BUCKEYE Q&A

### CEGE alum opens doors for Buckeye engineers

**Sugu Suguness'** (MS '85, CE) engineering journey brought him all the way from Sri Lanka to Columbus, Ohio. An engineer, entrepreneur, and philanthropist, Suguness has founded and led several engineering companies. He served as the inaugural Chair of CEGE's Advisory Board, actively participated in CEGE's Industry Mentor Program and assisted Ohio State's Development team during the university's Time and Change campaign.

His natural curiosity and commitment to helping others inspires him to make a difference in the lives of Ohio State students. Recently, Suguness discussed his Buckeye experiences and what drives him and his family to pay forward.

#### What led you to pursue engineering as a profession?

Growing up in Sri Lanka, I was curious about how things worked. I dismantled all our clocks and other mechanical objects and then tried to put them back together. And, right from the beginning, math was my favorite subject.

Later, I went to my neighbor's house to listen to the radio broadcast of the moon landing. That was the beginning of my dream to come to America. I worked hard in high school and received a scholarship to go to one of the best schools in India to study civil engineering.

#### How did your educational journey bring you to Ohio State?

About 50-60% of the students at my university (Indian Institute of Technology, Madras) came to the U.S. after receiving their degrees.

After I graduated, I went to Singapore to work for two years and began applying to U.S. engineering schools.

I chose Ohio State because it had an extensive engineering program, a top computer center and a large international student population. One more reason I came to Ohio was the pleasant climate in Columbus.

#### Looking back, what do you recall about your time on campus?

During my first quarter, it was not easy. I was in a strange place, far from Sri Lanka and Singapore. I had not yet made enough friends and the classwork was hard.

Then I started meeting other students and my wife, who had just finished her masters degree at the University of Florida, joined me in Ohio.

I also had a professor, Ranbir Sandhu, who was very dedicated to his students. I could go to Prof. Sandhu if I had a problem and we discussed class work and world events and issues. That helped me become comfortable with him.

#### Please tell us about some of your professional experiences.

After receiving my degree in structural engineering, I decided to stay in Columbus and look for a job. Another Ohio State alum, Curtis Moody (BS '73 Arch), had recently founded a business, Moodly Nolan. He gave me an opportunity to work as a junior engineer. I learned a great deal from him.

Later, I joined another company to learn about bridge design. Then, in 1990, I started a business. In 1992, I sold my shares to my business partner, and, with my wife, Susheela, cofounded another company. Prime Engineering employed over 250 engineers and architects in six offices nationwide.

In 2013, my wife and I sold our interest in Prime and "kind of" retired.

*Editor's note: In subsequent years, Suguness would go on to serve as President of Proto Precision Manufacturing Solutions and Amaazz Construction.*

#### What inspired you to engage with Ohio State as an alum?

During my business career, I always tried to hire students from Ohio State. I enjoy meeting people and hearing their stories. I like to teach others what I know and thought that I could contribute that knowledge to students at Ohio State.



*Jonathan Wegener (BS '19 CE, MEd, Math '23), Susheela and Sugu Suguness pose for a photo with COE Director of Development Courtney Ross (R) at the College of Engineering's annual Scholarship Luncheon. Photo courtesy of COE Communications.*

#### In what ways have you engaged with CEGE at Ohio State?

In 2013, I was invited to help create an advisory board for the department. All of the board members wanted to give back to the community and the university.

Mentoring and talking to students is important. They carry that knowledge with them for a long time and are really appreciative of you sharing your experiences with them. My wife and I contribute to scholarships because receiving a scholarship is how I was able to go to college. Otherwise, I might not have become an engineer.

#### What advice would you offer to fellow alumni who would like to get involved?

There is always a need. There is always something you can give back. It might be financial wherewithal or time you can contribute. If you are outside, it's very hard to feel involved. And in this day and age, you don't have to be in Columbus, Ohio to be inside. You can be in Beijing or elsewhere and can still be a part of Ohio State.

# IMPACT

## HONORING AN ENVIRONMENTAL ADVOCATE



Rob Bilott

Since earning his law degree from The Ohio State University Moritz College of Law, **Rob Bilott** has forged an impressive career at the forefront of environmental litigation and regulation.

Most notably, the partner at Taft Stettinius & Hollister LLP in Cincinnati, argued a landmark case against DuPont, in which he uncovered the toxicity of a non-regulated chemical, called PFOA or C-8.

The subject of a major motion picture which documented the DuPont case, Bilott was awarded an honorary doctorate degree from Ohio State during the AU21 commencement ceremony.



(L to R) Rob Bilott and former Ohio State President Kristina M. Johnson at the AU21 commencement. Photo: University Communications

Scan the code below to learn more.



Photo: Taft Stettinius & Hollister LLP

# STUDENT ACHIEVEMENT

## SABA ZAKERI SHAHVARI NAMED PRESIDENTIAL FELLOW

CEGE PhD candidate **Saba Zakeri Shahvari** (at right) was one of seven College of Engineering students named as Presidential Fellows for 2022 - 2023.

The most prestigious award given by the Graduate School at The Ohio State University, the Fellowship recognizes the outstanding scholarly accomplishments and potential of graduate students entering the final phase of their dissertation research or terminal degree project.

A researcher in Assistant Professor **Jordan Clark's** Sustainable Buildings Engineering Laboratory, Saba's work explores how metal organic framework sorbent materials can be used for highly energy-efficient solar air conditioning. The team is developing methods for displacing peak electricity load attributed to the use of air conditioning. Results of their current study were recently published in *Applied Energy*.



Saba Zakeri Shahvari

Photo: COE Communications



### Scan code to learn more

Approaching theoretical maximum energy performance for desiccant dehumidification using staged and optimized metal-organic frameworks



Rami Tamimi received the Younger Geospatial Award at GeoWeek 2022, held in Denver, CO. Photo: GeoWeek

**Rami Tamimi** is passionate about geodetic engineering. So much so that he shares that passion with over 56,000 subscribers to his YouTube channel.

Surveying and geodetic engineering content created by the PhD student and founder of surveying and mapping company, GEOICS, has garnered over 1.5 million views on the web platform.



### Scan code to learn more

Rami was introduced to the profession of land surveying by his father, himself a professional surveyor. He now educates others on a global scale via his YouTube channel.



## CIVIL ENGINEERING STUDENTS CROWNED CHAMPIONS

CEGE students **Lauren Bernard** and **Sophie Jaques** (BS '22, civil engineering) and their teammates on The Ohio State University Women's Ice Hockey Team won the first national title in program history on March 20, 2022. This season, the team (32-5-2, 23-4-1 WCHA) advanced to its second straight appearance in the NCAA Frozen Four, falling to Minnesota in the final.

Bernard, a senior and Ohio State Scholar-Athlete, previously played as a defenseman on USA Hockey's 2019 U18 team at the World Championships. She is a native of Madison, OH and is pursuing a BS in civil engineering.

Hailing from Toronto, Ontario, defenseman Jaques is a two time CCM/AHCS All American and recipient of the 2022 Arthur Ashe Jr. Female Sport Scholar of the Year award. Currently a CECE graduate student studying transportation engineering with faculty advisor, Professor **Mark McCord**, she was named a Patty Kazmaier Memorial Award Finalist in 2022 and the winner of the award in 2023. The award is presented annually to the top player in Division 1 women's ice hockey.



(Top left) The Ohio State Women's Ice Hockey Team celebrate the 2022 National Championship. (Top right) Sophie Jaques on the cover of 'Diverse Issues in Higher Education'



Lauren Bernard

Sophie Jaques

Photos courtesy of Ohio State Athletics



(Top) Tera conducts maintenance on a flux tower at Old Woman Creek. (Bottom) Setting up autochambers at Trail Valley Creek. Photos courtesy of Tera Yazbeck

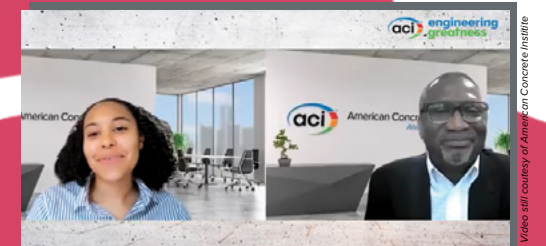
**Theresa (Tera) Yazbeck's** research has taken her from the wetlands of Ohio and Louisiana to the Arctic. A PhD candidate and researcher in Prof. **Gil Bohrer's** Ecohydrology and Forest Meteorology Lab, she studies micrometeorology and the role of trees in improving air quality.

She spent the summer of 2022 in the Northwest Territories of Canada as part of a team conducting carbon flux work at the Trail Valley Creek Research Station. Following her tundra research, the former Fulbright Scholar pivoted to her role as a Fellow with NASA's Future Investigators in NASA Earth and Space Science and Technology (FINNest) Program.



### Scan code to learn more

Read Gil Bohrer's blog about his team's work at Old Woman Creek National Estuarine Research Center



PhD student **Erin Stewartson** (L) fosters community for underrepresented groups in STEM fields. The NSF LSAMP Fellow and ACI Foundation Fellow recently joined American Concrete Institute Pres. Charles K. Nmai for the inaugural episode of *Engineering Greatness*, ACI's new podcast for young professionals.



### Scan code to learn more

View Engineering Greatness, Episode 1



Video still courtesy of American Concrete Institute

RESEARCH

**WEATHERING THE STORM**

CEGE professor discusses the state of the nation's energy infrastructure

Severe weather events in the summer of 2022 left hundreds of thousands of customers, in several states, without power. The storms, however, were only part of the story. In some cases, the infrastructure that delivers electricity to homes and business was at the center of these outages.

Associate Professor **Abdollah Shafieezadeh** and his research team in Ohio State's Risk Assessment and Management of Structural and Infrastructure Systems (RAMSIS) Lab study the effects of climate change and increasing consumer demand on the nation's critical infrastructure (CI) and are actively creating numeric and probabilistic models to assess CI's resilience and reliability.

Shafieezadeh's team recently developed a machine learning model for predicting how susceptible overhead transmission lines are to damage when natural hazards like hurricanes or earthquakes happen in quick succession.

The study, published in the journal *Earthquake Engineering and Structural Dynamics*, used simulations to analyze what effect prior damage has on the performance of these towers once a second hazard strikes. Results suggest that previous damage has a considerable impact on the fragility and reliability of these networks if it can't be repaired before the second hazard hits.

"Our work aims to answer if it's possible to design and manage systems in a way that not only minimizes their initial damage but enables them to recover faster," said Shafieezadeh.



Abdollah Shafieezadeh

In July of 2021, Shafieezadeh addressed the nation's efforts to account for increased demand for energy resources using existing infrastructure during testimony before the United States Senate Committee on Banking, Housing and Urban Affairs. He advocated for a revised approach to address current and future infrastructure and energy needs that included government-supported research, public and private sector investment, as well as raised awareness among consumers as to how they use these critical resources.

"There is overwhelming consensus among the research and academic community that not just single events but a combination of these events likely becoming more extreme," said Shafieezadeh. "Many parts of the country will see an increase in these stressors."

Tatyana Woodall, Ohio State News, contributed to this story.



Scan code to learn more

Study uses AI to predict fragility of power grid networks

by Tatyana Woodall



**BOHREROVA RECOGNIZED FOR RESEARCH EFFORTS**

In April, 2022, Research Specialist **Zuzana Bohrerova** was awarded the College of Engineering's Outstanding Service award for her support of research efforts related to monitoring the spread of COVID-19. As associate director of Ohio State's Ohio Water Resources Center, she led a statewide effort that coordinated the development of a network of analytical laboratories to measure SARS-CoV-2 in raw wastewater.

Wastewater samples from over 70 communities and 12 universities across Ohio were collected and analyzed. Data derived from these samples provided critical information, such as early indications of COVID-19 cases increasing or decreasing, to Ohio communities and local health care providers.

In June, 2022, Dr. Bohrerova transitioned to the Ohio Department of Health, where she now serves as Program Manager of the Ohio Wastewater Monitoring Network.



Zuzana Bohrerova

**BARRY TOLCHIN NAMED UNIVERSITY DISTINGUISHED STAFF MEMBER**



Barry Tolchin

Manager of Academic Advising **Barry Tolchin** was among 13 Ohio State staff members presented with the university's highest staff recognition in May, 2022.

Mr. Tolchin was recognized for his significant contributions to the CEGE community, which include work as a certified REACH Suicide Prevention Program instructor, an officer in Ohio State's Academic Advising Association, and as director of CEGE's highly successful Industry Mentor Program.

Recipients of the award were honored during a series of surprise visits from university leadership, during a formal luncheon held on campus, as well as in Ohio Stadium during the Ohio State - Arkansas State football game on September 10, 2022.



Scan code to learn more

Barry Tolchin recognized for his contributions to Ohio State





# FACULTY ACHIEVEMENT

## FACULTY PROMOTIONS ANNOUNCED

CEGE is pleased to announce the following faculty promotions approved by the Ohio State University Board of Trustees during the 2021-2022 and 2022-2023 academic years.

**Andre Carrel** was promoted from the rank of Assistant Professor to that of Associate Professor with tenure. A member of CEGE's transportation engineering faculty, Prof. Carrel's research addresses topics such as how advances in technology, communication and consumers' past experience affect travel behaviors.



Andre Carrel

**Benjamin Coifman** was promoted from the rank of Associate Professor with tenure to that of Professor with tenure. He is a member of CEGE's transportation faculty and directs the Traffic Engineering at Ohio State research group, which investigates intelligent transportation systems and improvements to traffic control and traffic flow theory.



Benjamin Coifman

**Andrew May** was promoted from the rank of Assistant Professor to that of Associate Professor with tenure. An environmental engineer, May's research addresses air quality from a highly interdisciplinary perspective, incorporating traditional engineering disciplines as well as physics, biology, public health and public policy.



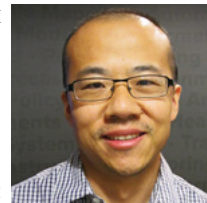
Andrew May

**Abdollah Shafieezadeh** was promoted from the rank of Associate Professor with tenure to that of Professor with tenure. Shafieezadeh's RAMSIS Lab research group addresses reliability, resilience, and life-cycle performance of structural and infrastructure systems.



Abdollah Shafieezadeh

**Lei Wang** was promoted from the rank of Assistant Professor to that of Associate Professor with tenure. A member of CEGE's geodetic engineering faculty, Prof. Wang's Geodesy Research Group studies changes in the Earth's systems by developing novel scientific and engineering applications, using a variety of satellite-based geodetic techniques.



Lei Wang



Scan code to learn more

Explore CEGE research and laboratory groups.



## AMERICAN CONCRETE INSTITUTE HONORS LISA BURRIS

**Lisa Burris**, assistant professor of materials and structural engineering, was recently honored by the American Concrete Institute (ACI) for her research and mentorship of students. Noting her "contributions to advancing knowledge on the use of sustainable materials and binders in concrete infrastructure", ACI presented Prof. Burris with the Young Member Award for Professional Achievement in 2022. Burris' work to advance students' technical knowledge of the sustainability and durability of cement and concrete infrastructure was recognized at the ACI Spring 2023 Concrete Convention, held on April 5, 2023, in San Francisco, CA. There, she received the Walter P. Moore, Jr. Faculty Achievement Award. Scan QR code at right to learn more.



Lisa Burris

# COLLEGE OF ENGINEERING HONORS FACULTY TEACHING, RESEARCH AND OUTREACH EFFORTS

Each year, the College of Engineering honors faculty, researchers and partners who exhibit outstanding teaching, innovation and service to our students, the university and the community. In 2021 and 2022, several CEGE faculty members were recognized for their achievements.

**Dorota Grejner-Brzezinska** received the 2021 Diversity Excellence Award for advancing CEGE's mission in teaching and research through a commitment to diversity in faculty hiring. Professor Grejner-Brzezinska currently serves as Vice President for Knowledge Enterprise at Ohio State.



2021 honorees Dorota Grejner-Brzezinska (above) and Andrew May (right)



Then Assistant Professor and air quality researcher **Andy May** was a recipient of the college's 2021 Lumley Engineering Research Award, which is presented to a select group of outstanding researchers in the College of Engineering who have shown exceptional activity and success in pursuing new knowledge of a fundamental or applied nature.

Associate Professor **Andre Carrel** and Assistant Professor **Jordan Clark** were 2022 recipients of the Lumley Engineering Research Award.



2022 honorees Andre Carrel (above, left) and Jordan Clark (above, right) receive their Lumley Engineering Research Awards. Posing with each honoree are (L) Marcela Hernandez, Assistant Dean for Faculty Affairs and Recruitment, COE, and Andre Palmer, Associate Dean for Research, COE (R)

Prof. Carrel was honored for his ongoing research to quantify the impact of transit quality of service and emerging technologies on urban travel demand. Prof. Clark was recognized for his research, which addresses the physical processes affecting energy consumption, thermal environments, and air quality in sustainable buildings.

The Dean's Award for Distinguished Outreach Achievements was presented to **Daniel Pradel**, professor of practice. Prof. Pradel was honored for his sustained record of collecting time-sensitive, geotechnical data following extreme hazard events such as tsunamis and hurricanes, to improve mitigation and design of geotechnical infrastructure to save lives and property.



(L to R) La'Tonia Stiner-Jones, Assoc. Dean of Graduate Programs, COE, Daniel Pradel, and Laura Alvarez, Strategic Operations Manager, COE

This award recognizes an individual faculty member who has demonstrated significant and long-standing achievement of positive community impact through outreach activities or programs within the college.

**Eblal Zakzok**, senior lecturer, was presented the Dean's Award for Outstanding Teaching by a Lecturer. Dr. Zakzok was recognized for enhancing student preparation for the modern engineering workforce by integrating cutting-edge tools and practices into experiential student learning.



(L to R) Andre Palmer, Associate Dean for Research, COE, Eblal Zakzok, and David Tomasko, Associate Dean, Undergraduate Education and Services, COE

Adapted from an article by Candi Clevenger, COE Communications

## IN MEMORIAM

The Department of Civil, Environmental and Geodetic Engineering offers its deepest condolences to the family and friends of these faculty emeriti and valued members of the CEGE community.



**Russel Russell C. Jones**, PhD, PE, who served Ohio State as Chair of the Department of Civil Engineering from 1971 - 1976, died on May 8, 2021, at his home in Falls Church, Virginia. He was 85 years old.

He began his academic career teaching at the Massachusetts Institute of Technology and, in addition to his position at Ohio State, held leadership positions at other academic institutions. He served as Dean of Engineering at the University of Massachusetts, Academic Vice President at Boston University, and President and University Research Professor at the University of Delaware before retiring from academia.



[Read more.](#)



**Charles (Chuck) A. Moore**, PhD, PE, died on September 25, 2021. A native of Durham, North Carolina, Dr. Moore began his career at The Ohio State University in 1972.

He earned a bachelor's degree in civil engineering from Duke University and later received a master's degree in civil engineering from the Georgia Institute of Technology and a doctoral degree in engineering science from the University of California, Berkeley. Before his tenure at Ohio State, Prof. Moore also served as Visiting Scientist at the Massachusetts Institute of Technology and as Assistant Professor of Materials Engineering at the University of Illinois at Chicago Circle.



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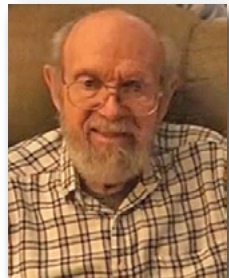


**Edwin T. Boyer**, EdD, died on Nov. 4, 2021 in North Carolina. He was 84 years old. A native of Plainfield, New Jersey, he earned his BS degree from Keene State College in 1962. Later, he earned his M.S. from Indiana State University in 1963 and an EdD at Texas A&M University in 1976.

He served as an associate professor at Northern Illinois University and joined Ohio State in 1984 as an associate professor in the College of Engineering. He taught courses in engineering graphics, architecture, air brush and illustration. Collaborating with four of his colleagues, Prof. Boyer served as lead author of Technical Graphics, an internationally known textbook.



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**Vincent (Vince) T. Ricca**, PhD, died on April 11, 2022. He was 86 years old. A veteran of the United States Navy Reserve, Dr. Ricca earned his bachelor's degree in civil engineering from the City College of New York in 1962. He later attended Purdue University, where he received a master's degree in hydrology (1964) and a PhD in hydraulic engineering (1966).

Following professional service as a civil engineer for departments of public works in Babylon, NY and Sacramento, CA, and as a design engineer at Purdue University, Dr. Ricca joined Ohio State's faculty in 1966. He retired in 1992.



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## CEGE WELCOMES NEW GEOTECH FACULTY

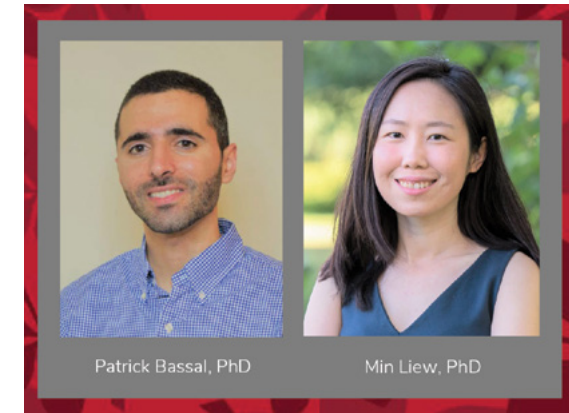
The Department of Civil, Environmental and Geodetic Engineering is pleased to welcome two new members to the geotechnical engineering faculty group. **Patrick Bassal**, PhD and **Min Liew**, PhD began their appointments as assistant professors on January 1, 2023.

Dr. Bassal earned a PhD in geotechnical engineering from the University of California, Davis, an MS in geoenvironmental engineering from the University of California, Berkeley, and a BS in civil engineering from the California Polytechnic State University, San Luis Obispo.

His research investigates the influence of geologically-informed subsurface variability for (1) evaluating the stability and resilience of geosystems (e.g., earth dams, embankments, bridge foundations, tunnels) subjected to natural hazards, and (2) improving geotechnical site characterization practices.

Dr. Liew holds a PhD and MS in civil engineering from the Pennsylvania State University and a BS in civil engineering from the University of California, Los Angeles. Her research interests include permafrost and cold regions geotechnics, climate change-related geohazards, and climate-resilient and sustainable civil infrastructure.

Liew's expertise includes numerical modeling of multiple physics fields (e.g., thermal, hydraulic, and mechanical), laboratory and field testing, seismic and sensing methods, data synthesis, and surveying. She has authored over 20 refereed publications. Her research is funded by the National Science Foundation, the U.S. Department of the Interior, and the U.S. Department of Transportation.



Patrick Bassal, PhD

Min Liew, PhD

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