

# CIVIL MATTERS



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Summer 2022

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**Above:** Civil engineering students work in the recently remodeled Harvey J. and Peggy S. Page Civil Engineering Senior Design Lab.

**On the cover:** Amy Kowalczewski, junior in civil engineering, inspects a treated wastewater sample prior to performing a suite of water quality analyses.

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**KANSAS STATE**  
UNIVERSITY

Department of Civil Engineering

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## From the Department Head

The 2021-2022 academic year was a welcome change as we moved on from many of the challenges presented to us during the COVID-19 pandemic. Last year, we started our academic and research work in a new normal fashion and were able to attract a relatively large class of 52 students. Our graduating class also set a new record number, with 48 students graduating with bachelor's degrees, 11 with a master's and three doctorates awarded. Placement record of our undergraduates is at 95%, and we also recorded a new high national ranking of 69 among 150 civil engineering programs ranked by U.S. News & World Report.

Our faculty continue to win awards at national, regional and departmental levels. Our students too have won very prestigious and competitive scholarships and awards. Thanks to the support of alumni like you, last year we were able to disburse scholarships to a large number of undergraduate students totaling more than \$209,275. We raised more than \$1.3 million for new scholarships, faculty support and facility renovation during this past year. The senior design project room has been remodeled at a cost of \$180,000. We are very thankful for our generous and supportive alumni.

On the research side, our expenditures have been steady despite the pandemic. Our faculty continue to receive national grants. We've featured short stories on various research projects in our department throughout this magazine.

Our creative inquiry teams also returned to normal, meeting and working throughout the year. This is the first time in two years that they competed in person. Both the concrete canoe and steel bridge teams placed high in the regional competition and competed nationally.

Thanks to strong alumni support, the department continued to do incremental improvement in teaching and research facilities to emphasize our "hands-on" approach to civil engineering education. Our Global Campus and other continuing education and technology transfer programs also recorded strong performances.

This year, the department also started a number of named lecture series delivered by invited speakers. We also have



featured various alumni news and accomplishments, as well as memoirs featuring Bob Snell and Stuart Swartz, life-long CE faculty members and former department heads.

It has been a proud achievement of mine to serve as the head of this storied department with strong alumni support. We are extremely grateful to the alumni for their contribution to the financial well-being of this unit. We are dedicated to educating future generations of civil engineers and will continue to set the success of our students and graduates as our No. 1 priority.

A handwritten signature in black ink that reads "Mustaque Hossain".

Mustaque Hossain, Ph.D., P.E.  
Munger Professor, Department Head and  
Civil Engineering Alumni Professorship Honoring  
Dr. Robert Snell

# DEPARTMENT RESEARCH

## Predicting fatigue damage

The Kansas Department of Transportation, or KDOT, uses various overhead sign structure topologies throughout the state. Most of these structures have been in service for more than 45 years, though may not be designed for fatigue. Thus, it is essential to perform routine fatigue inspections in all structural components to ensure structural integrity, especially fatigue cracks and subsequent safety issues. This makes the inspection plans tedious and complex to implement due to the large number of members that should be evaluated. A more reliable methodology is needed to assist in inspecting and evaluating these critical structures.

In a research study supported by KDOT, doctoral graduate **Khalid Al Shboul**, under the supervision of Hayder Rasheed, Darold and Debbie Davis Cornerstone teaching scholar and professor, successfully developed a comprehensive approach for fatigue inspection from wind loading development to modeling, analysis, and structural assessment of various components in these highway structures. This was done through the creative implementation of isoparametric finite element shape functions to derive wind speed records for all unsampled Kansas counties from actual data recorded at 17 city locations within and around Kansas. A computational method using the Kaimal spectrum was used for generating artificial time histories of wind speeds.

Moreover, the resulting wind speed versus the number of cycles relationship database was utilized to build a comprehensive analytical tool to accurately predict the remaining fatigue life of highway sign support structures



subjected to long and sustained wind fluctuations. The final product of the research was a computationally-affordable simulation package to carry out generation of wind spectra, cycle counting, structural modeling and fatigue life calculations. The software showed to be deft in calculating fatigue damage by capturing cracks at different critical spots for a cantilever and overhead structure. The work resulted in several publications in prestigious journals and three software packages. These packages were delivered to KDOT and are expected to significantly influence the decision-making and prioritization of repair plans of overhead sign structures throughout the state.

## Proven safety countermeasures in Kansas

The Kansas Department of Transportation, or KDOT, is actively working on improving multimodal safety. As civil engineers and urban planners work to improve the walkability and bike-ability — and thus livability — of Kansas towns and cities, it is critical that pedestrians and cyclists can travel safely.

There are a number of low-cost interventions that have been implemented across the nation, but there have been no studies of their effectiveness along Kansas roadways. To conduct this analysis, KDOT is supporting research led by **Gregory Newmark**, research associate professor, to evaluate the benefits of simple, low-cost interventions such as pedestrian islands and curb extensions. This analysis is conducted in partnership with the Flint Hills Metropolitan Planning Organization and the cities of Manhattan, Emporia, Lawrence and Junction City.

The structure of the research is very straightforward. Traffic counters that measure vehicle speeds are installed prior to the intervention to gather baseline data. Either

permanent or temporary infrastructure is added and the counts are repeated to identify any changes in behavior. In several cases, the traffic counts are complemented by video to assess driver yield rates to pedestrians. The interventions are located at intersections and crosswalks that see many pedestrians including churches, trail crossings, and, most commonly, schools. All the baseline data has been collected and analyzed and the project has now shifted to focusing on the post-intervention comparison.

The goal of the project is to not only identify the benefit of these low-cost interventions, but also to provide clear materials to guide local officials and county engineers in describing the benefits to skeptical members of the public. It is hoped that a hard number on the benefits of these multimodal safety countermeasures will facilitate conversations on how to allocate scarce public funds for best safety results. The studied interventions are, by design, very low-tech and therefore low-cost and low-maintenance. Ideally, they will prove to be high value and significantly improve the safety and comfort of Kansas communities.



# Graduate student profile and research

Born in Kuwait and raised in Palestine, **Fahed Salahat** is a civil engineering doctoral student conducting his research in structural engineering and aiming at optimizing the design and retrofit of bridge infrastructures to achieve sustainable and resilient built environment for human communities around the world.

When the purpose of the bridge is to cross roadways, the bridge piers are subjected to extreme events represented by collision with the vehicles that use the roadway underneath. The severity in the consequences of such an event depends on multiple factors, such as the type and velocity of the vehicle involved in the crash and the condition of the bridge infrastructure. Current AASHTO bridge design specifications consider a limit state to account for extreme events, which includes earthquake and vehicle collision events. Two approaches can be taken to satisfy this limit state: either by designing the pier so it can resist high lateral load that has been found to meet the demands of the vehicular collision load, or VCL, or by using intervening structures designed to contain and redirect the impacting vehicle or absorb the VCL and bring the impacting vehicle to a controlled stop.

Old bridge and infrastructure elements that were designed prior to recognizing the VCL as a limit state are widely spread across the United States. The piers of these bridges were not designed to resist high load demands, such as the VCL. Also, if used, the intervening structures, which are mainly reinforced concrete barriers, were not designed to survive crash events that have large impacting vehicles traveling at high velocities. Therefore, Salahat is running a matrix of dynamic simulations considering different crash scenarios and varying key parameters that might differ from one bridge to another. The ultimate goal is to meet the demands of the VCL as per the modern specifications, but the suggested approach is a blended one between the available sub-standards barrier contribution and that of the under-designed bridge piers.

This research consists of two phases. The first phase is about examining the capacity of the sub-standard barriers under



different crash scenarios by dynamic explicit finite element analysis using LS-DYNA software. The results of this phase are validated by analytical formulations based on theories of mechanics of materials and structural analysis and also using Abaqus implicit finite element analysis. In the second phase, the modeled crash environment will include bridge piers in order to determine the critical reduced VCL transferred to them in the presence of sub-standard barriers. This load can be the new target for designing or retrofitting bridge piers where similar conditions exist. Upon the completion of this study, the results will be disseminated to the highway engineering community and all highway agencies.

# CE student groups

## Concrete Canoe Team

The Kansas State University Concrete Canoe team competed at the 35th annual American Society of Civil Engineers' Concrete Canoe Competition finals, June 3-5, after a second-place finish at the regional Mid-America Student Symposium in May.

The competition, which featured 19 qualifiers from 10 regions, was hosted on the campus of Louisiana Tech University in Ruston, Louisiana. The K-State team finished 16th overall and eighth in the enhanced focus area paper.

The team improved upon its sixth-place finish at the 2021 regional competition. The civil engineering department is thrilled with the success achieved this year and is eager and energized to build on this success.



Concrete Canoe team at the Mid-America regional competition, Ames, IA. From left to right, Dalton Wilbrandt, Christopher Jones (team advisor), Amelia Mullin, Cody Meyer, Ben Gammeister, Luke Vohs, Abbi Clark, Nathan Streeter, Maddie Akers, Lindsay Schupp, Isabelle McCann, Quinn Underwood, Kayleigh Bednar, Hunter Prochaska

## Steel Bridge Team

The Steel Bridge team competed at the American Institute of Steel Construction National Steel Bridge Competition May 27-28 at Virginia Tech in Blacksburg, Virginia. In March, the team took second place in the ASCE Mid-America Student Symposium regional competition to qualify for the national competition. The event challenged participants to create a one-tenth scale steel bridge of approximately 20 feet in length.

The process includes designing and fabricating a bridge to support 2,500 pounds of steel. In competitions, judges look at how the team minimized the bridge's weight and vertical deflection, as well as the time it takes to build the bridge with steel parts. Each part must fit in a box with dimensions of 4 inches by 6 inches by 4 feet.



The K-State Steel Bridge team competes at the Mid-America Student Symposium regional competition in April.



## Opportunity to support the civil engineering department

We are actively looking for planners, engagers, judges and sponsors.

Please contact the K-State Host Planning Team at [asce-mass-2023@k-state.edu](mailto:asce-mass-2023@k-state.edu) for more information.

Visit the Mid-America Student Symposium website [studentsymposium.asce.org/mid-america](http://studentsymposium.asce.org/mid-america) (currently under development) for the latest information.

# DEPARTMENT IMPROVEMENTS AND OUTREACH

## Drone-based surveying

CE 212 – Elementary Surveying is a popular service class offered by the CE department. Use of an unmanned aerial vehicle, commonly known as a drone, in surveying is gaining popularity. Ryan Howell, instructor from the department of unmanned aircraft systems at K-State Salina, demonstrated the use of drone for surveying applications to the engineering and construction science students enrolled in CE 212 on K-State's Manhattan campus. The drone was used to create an orthomosaic image (a 3D image generated by stitching together 2D images) and topographic map of the area to the east of Anderson Hall. The data collection (i.e., capturing images using the drone) and the image processing was performed during a scheduled surveying lab in the spring 2022 semester. Instructor of CE 212, Parth Panchmatia, teaching assistant professor, plans on incorporating drones during surveying labs in all future semesters.



Topographic map of the Anderson lawn on the Manhattan campus.

## Lectureships in CE research areas

The civil engineering department has unveiled a series of invited lectureships as part of the graduate seminar. The goal is to offer more professional development opportunities to the graduate students and prospective graduate students from the undergraduate ranks.

The first, the Dr. Bob L. Smith Transportation Engineering Lecture entitled "Kansas has a proud transportation legacy; Recognize it, appreciate it and live up to it," was delivered by Deb Miller, former Kansas secretary of transportation and current member of the Kansas Turnpike Authority Board. The event, held at the K-State Union, attracted a large number of students, faculty and alumni. The speaker was introduced by alumnus Mike Lackey, former Kansas assistant secretary of transportation and state transportation engineer for KDOT. Opening remarks were provided by Jan Smith Langston, daughter of long-time CE professor Bob L. Smith.

The Munger Professorship Materials Engineering Lecture entitled, "High consequence engineering solutions: Safe geologic disposal for radioactive waste," was delivered by Patrick Mattie, manager at Sandia National Laboratories.

The Dr. Bob R. Snell Structural Engineering Lecture entitled, "Past, present and future of highway transportation in Kansas," was delivered by alumnus Calvin Reed, director of the Division of Engineering & Design at KDOT.

The Environmental Engineering Lecture entitled, "Developing a resilient water future," was delivered by alumna and 2022 inductee to the Carl R. Ice College of Engineering Hall of Fame Cindy Wallis-Lage.

The Munger Professorship Constructional Engineering Lecture entitled, "Exploring the future delivery of KDOT construction projects," was presented by Greg Schieber, director of Division of Project Delivery at KDOT.

Alumna Emily Wicoff, project engineer at Snyder & Associates, St. Joseph, Missouri, delivered the Water Resources Engineering Lecture entitled, "Water resources: Career opportunities in a dynamic field."

The CE department welcomes alumni to participate in this lecture series as speakers in the future.

## CE outreach/tech transfer programs

### Annual Bridge Design Workshop

This workshop reviews the latest developments in bridge design and LRFD (particularly as they pertain to foundations and geotechnical considerations), and provides information about available resources from the American Association of State Highway and Transportation Officials, Federal Highway Administration and Kansas Department of Transportation. The workshop will have its 29th session in October 2022. Hani Melhem, professor, is the conference director.

### Annual Kansas Transportation Engineering Conference

The Kansas Highway Engineering Conference began in 1918 and was identified by this name until 1972 when it was renamed the Highway and Transportation Engineering Conference following renaming of the Kansas Highway Commission as Kansas Department of Transportation. This conference is an important part of the department's education, research and outreach mission. The conference is held in April of every year. Eric Fitzsimmons, associate professor, is the conference director.

### Traffic Assistance Services for Kansas (TASK)

K-State and the University of Kansas, in cooperation with the National Highway Traffic Safety Administration, FHWA and KDOT, are offering courses in traffic assistance services for Kansas. TASK classes are offered statewide throughout the year. Eric Fitzsimmons, associate professor, is the TASK coordinator from K-State.



### Superpave Field Lab Technician Certification Training

Superpave Field Laboratory Technician Certification Training is a four-day course offered jointly by K-State and KDOT. This course is intended to certify engineers, technicians and other personnel who will be involved in the construction of Superpave Hot-Mix Asphalt pavements using quality control and quality assurance specifications in the state of Kansas. The training has been offered since 1996. Instruction is provided by a select group of instructors from KDOT, industry and K-State. Multiple sessions are held each year in January and February. Mustaque Hossain, professor and department head, is the coordinator.

### Midwest Commercial Vehicle Safety Summit (MCVSS)

The summit was arranged to bring together all relevant stakeholders that share the goal of decreasing the number and severity of commercial motor vehicle crashes on Midwestern roadways by enhancing safety via sharing knowledge, evaluating technology and networking. This group includes state and federal agencies, private industry, law enforcement, transportation safety engineers, university researchers, insurance companies and nonprofits. Nearly 270 attended the inaugural summit in June in Kansas City, Missouri. Speakers included Julie Lorenz, Kansas secretary of transportation and director of the Kansas Turnpike Authority, Darrell Ruban, associate administrator for the Office of Safety in the Federal Motor Carrier Safety Administration, and Honorable Michael Graham, board member of the National Transportation Safety Board. Eric Fitzsimmons, associate professor, led the grant and planning team.



# Generations of Wildcats

The K-State civil engineering department is proud to provide quality education to many generations. As we examine our “generations of success,” we will feature here selected alumni that are multi-generational or members of the same family.



## The Moreys

The Moreys have two generations who attended K-State and graduated from CE. Burt Morey ('81) is currently the deputy secretary and state transportation engineer at KDOT. He has more than 31 years of work experience in both private and public sectors. Previously he worked as the KDOT metro engineer in Johnson County, project director for the Johnson County Gateway design-build project and the city engineer of Overland Park. His son, Brett Morey ('18), is an EIT working for Burns & McDonnell in the transportation division. Brett is currently pursuing his master's in civil engineering at K-State and also preparing for his PE for a life-long career in CE.

## The Waterses

Carla Waters ('88) completed her bachelor's in civil engineering from K-State. She is currently with Schwab Eaton in Salina. Carla has worked in the transportation design field her entire career for two consulting firms. Her responsibilities as a civil engineer have ranged from a design engineer to a project manager. Her daughter, Bailey Waters ('20), worked a short stint with Kimley-Horn in St. Paul, Minnesota, and now serves as the chief mobility officer for the City of Kansas City, Missouri.



## The Lackeys

The Lackeys have three members who are graduates of K-State CE. Mike Lackey ('63 and '75) served as a highly-decorated Kansas Department of Transportation engineer starting in 1963. In his last position before retirement, Mike was the state transportation engineer and assistant secretary of transportation. His brother, Steve ('71), served in both private and government sectors. His long service record involved working for the Gas Company, the City of Wichita and TranSystems. Steve's son, Jeff ('00), briefly worked for PEC after graduation, and now works for TranSystems. He is currently a senior vice president and managing director for the TranSystems Midwest Area.



## The Sylvesters

The two Sylvester brothers who are graduates of K-State CE have had successful careers in the petroleum industry. Alan Sylvester ('75) joined a major oil and gas company as a design engineer, ultimately progressing into executive management and retiring with 30 years of distinguished service. Randall Sylvester ('77) elected to follow in his brother's footsteps. Randall retired after 34 years in the petroleum industry. His career began in corporate engineering with projects across the U.S. and all aspects of the asset/project life cycle starting from conception to decommissioning. Randall went on to be instrumental in the development of corporate initiatives such as process safety management (OSHA 1910.119) and information technology. Their older brother James ('72) also was a K-State graduate in electrical engineering.



## The Lages

Cindy Wallis-Lage ('86) is an executive director at Black & Veatch in Kansas City, Missouri, where she is focused on enterprise-wide client sustainability and resilience. Wallis-Lage served as the president of Black & Veatch's water business from 2012-2021 and is a member of its board of directors. She joined Black & Veatch in 1986 and has been active in water and wastewater practice since then. Her son, Austin ('15), started as a design engineer with BHC in Overland Park and is currently a project engineer with them. Cindy's daughter, Madison (Lage) Kingsbury ('18), is currently a project engineer with Black & Veatch in San Antonio. Her other son, Jackson, is a 2018 mechanical engineering graduate from K-State.

## The Mungers

The Munger family is a prominent face of the graduates of the CE Department as signified by the Munger Professorship. The professorship was established by Elmer and Vivian Munger to recognize Harold H. Munger ('39), Elmer L. Munger ('36) and Harold H. Munger ('70). Elmer Munger served in the U.S. Army Corps of Engineers. He also worked for the U.S. Engineering Department, Wilson & Co., Salina, and St. Louis Southwestern Railroad. He taught at Iowa State University; Norwich University, Northfield, Vermont; University of Puerto Rico, Mayaguez; Michigan Tech University, and K-State.

*In addition, CE department graduates also include siblings or multi-generation members from the Cillezens, Fangmans, Middletons, Niehauses, Sommerfelds, Wuertzs, Wurdemans, Zimmermans and so on. We're proud to serve these Kansans.*

# CONGRATULATIONS

## 2021-2022 GRADUATES



### SPRING 2022 B.S. GRADUATES

Sami Ali Alsehami  
 Samantha Mikaela Anderson (CI)  
 Derek Michael Bogner (Sci)  
 Joshua Macrae Brown  
 Blaine Christian Burks  
 Sarah Carr  
 Austin Robert Deters  
 Andrew Stephen Fischer  
 Matthew Ryan Fiset  
 Claudia Christine Hess  
 Kyle Ray Hirner  
 Ciara Nicole Hogsett (S)  
 Oliver Hutchison (D)  
 Nina Rose Killion  
 Dakota Micheal McKee  
 Ian David Montgomery  
 Jorge Morales Navarro  
 Matthew Joseph Oszman  
 Noah Richard Pudenz  
 Brody Guiseppe Roberson  
 Jacob Charles Scharz  
 Madison Kay Schoemann (MCI)  
 Andrew Sheridan  
 Ryan-Patrick Lloyd Shewey  
 Andrew Manny Sotelo  
 Josiah David Thomas (CI)  
 Joelle Uwase  
 Benjamin John Walters (H) (S) (D)  
 Dalton Ray Willbrant

### FALL 2021 B.S. GRADUATES

Anas T M H Alqattan  
 Mark Alexander Arnold  
 Ellis Bruce Baughan  
 Adam Dean Bendrick (CI) (D)  
 Alexander S. Bush  
 Jakob Robert Coacher (Sci)  
 Noah Joseph Coleman

### FALL 2021 B.S. GRADUATES (cont.)

Samuel John Macaluso  
 James Gitonga Reche  
 Ross Lee Schrag  
 Dylan Grant Shellenberger  
 Mauricio Zavala Tomboly  
 Grant S. Trued  
 Kade Paul Urban  
 John Bertram Winter

### PH.D. GRADUATES AND DISSERTATIONS

**Jack Reid Cunningham IV** — major professor, Eric Fitzsimmons  
 Dissertation: *An evaluation of low-cost wrong-way countermeasures at partial cloverleaf interchanges on Kansas interstates*

**Kahao Lim** — major professor, Prathap Parameswaran  
 Dissertation: *Anaerobic membrane bioreactors for domestic wastewater treatment: Treatment performance and fouling characterization*

**Abdulaziz Hebni Alshehri** — major professors, Sunanda Dissanayake and Eric Fitzsimmons  
 Dissertation: *Analysis of risk factors associated with fatal intersection crashes involving older drivers in the Midwest*

### M.S. GRADUATES AND MAJOR PROFESSORS

Albert Adam Abraham	Hani Melhem
Abdullah M A E Alshayji	Eric Fitzsimmons
Behrang Annabi	Hani Melhem
Samuel Patrick Brown	Prathap Parameswaran
Kathryn Stephanie Anne Calilan	Jeongdae Im
Jeremy Brandon Hansen	Hani Melhem and Hayder Rasheed
Laura Beth Helbling	Dunja Perić
Seth David Hensarling	Christopher Jones
Wenqian Lu	Stacey Kulesza
Emily Michelle Randig	Prathap Parameswaran
Ryan Christopher Rogowski	Christopher Jones

## 2021-2022 Advisory Council Members

**Andy Buessing**  
 Hutton Construction

**Chris Covert**  
 Northwest Redwater Partnership | Retired

**Kevin Day**  
 Canadian National Railroad

**David Jacobson**  
 Kansas Turnpike Authority

**Rick Kreider**  
 Kansas Department of Transportation | Retired

**Marsha Meili**  
 Spirit AeroSystems | Retired

**Cathy S. Ritter**  
 Constellation Design Group Inc.

**Burt Morey**  
 Kansas Department of Transportation

**Warren K. Ray**  
 Missouri University of Science and Technology

**Joe Surmeier**  
 Professional Engineering Consultants, P.A.

**Gary Wurdeman**  
 Pablo Energy LLC

**Andrew Wiederholt**  
 Bartlett & West

## About the CE Advisory Council

The mission of the council is to provide a continuing liaison between the academic community and practicing profession, and to assist the CE department, Carl R. Ice College of Engineering and Kansas State University in providing the highest quality of civil engineering education.

Functions of the council are to review programs and goals, and advise the department head and dean of the college.

Goals and objectives of the civil engineering advisory council include the following:

- coordinating with the department to stay informed about its needs;
- consulting and assisting the department head and faculty on departmental curricula, including instructional and organizational matters;

- presenting information on needs and services of the department to interested parties;
- assisting in the collection of case studies and problem materials for educational purposes;
- assisting in the process of faculty recruitment and faculty industry interaction;
- assisting the department in developing research and technology transfer;
- assisting with ABET accreditation; and
- providing support to students and faculty through engagement in department and classroom activities.

## Awards and accolades

### Students

#### Undergraduate

**Samantha Anderson**, senior, received the Sharon D. Banks Undergraduate Scholarship from the WTS Kansas City Chapter. She also received the Thomas J. Seburn Student Paper Award from the Institute of Transportation Engineers Missouri Valley (MOVITE) District. At the 2021 ITS Heartland Annual Meeting held in Overland Park, she placed second in the poster competition. The CE faculty voted her to receive the Vernon Rosebraugh Award in spring 2022.

**Sarah Carr**, senior, received the Fox Valley Branch APWA scholarship.

**Jakob Coacher**, senior, was voted on by the CE faculty as the fall 2021 Bartlett & West Outstanding Graduating Senior.

**Mason Ericson**, senior, received a Tau Beta Pi Scholarship from the Carl R. Ice College of Engineering.

**Jack Fisher**, junior, was voted by the faculty as the Bartlett & West Outstanding Junior for spring 2022.

**Wyatt Hessman**, freshman, was selected by the faculty as the Outstanding Freshman for the fall 2021 semester.

**Madison Schoeman**, senior, was voted by the faculty as the Bartlett & West Outstanding Graduating Senior for spring 2022.

**Grace Whisler**, senior, received the APWA Steve Webb Memorial Scholarship for the upcoming 2022-2023 academic year.

#### Graduate

**Shanjeeda Akter, A M Hasibul Islam, Arash S. R. Olia, Javad Saeidaskari and Noura Saleh** are the recipients of the 2022-2023 John A. Angold Engineering Scholarship from the Carl R. Ice College of Engineering.

**Arash Olia** received the Outstanding Ph.D. Student award from the CE department.

**Emily Randing** and **Priyasha Fernando** received the Outstanding M.S. Student award from the CE department.

**Garima Sharma** placed second at the Stability Student Paper Competition of the 2022 Engineering Mechanics Institute Conference held at Johns Hopkins University, Baltimore, Maryland.

**Khalid Al Shboul** was recognized as the 2022 K-State Graduate School Graduate Student Council Award recipient.

**Nader Zad** was recognized at the 2022 Extraordinary Student Award Banquet at K-State.

### Faculty

**Husain Aziz**, assistant professor, has been inducted as a Panel Fellow into the 2022 cohort of the National Science Foundation (NSF) Division of Civil, Mechanical, and Manufacturing Innovation's (CMMI) Game Changer Academies.

**Eric Fitzsimmons**, associate professor and holder of the Hal and Mary Siegele professorship in engineering, was appointed a George Yeh - Carl and Mary Ice Keystone research scholar. He also was voted to be the 2022 Bob and Bernita Thorn ASCE Outstanding Faculty Member by the ASCE Student Chapter.

**Christopher Jones**, professor and Wallis-Lage Family Cornerstone teaching scholar, was appointed the Thomas and Connie Paulson civil engineering outstanding faculty member. He also received promotion and tenure. The Civil Engineering Graduate Student Council named him the 2022 Outstanding Graduate Faculty.

**Weston Koehn**, teaching assistant professor, won the 2022 Bob Snell Chi Epsilon Outstanding Undergraduate Teaching Award.

**Greg Newmark**, research associate professor, received the 2022 K-State Global Campus Excellence in Online Teaching Award.

**Hayder Rasheed**, professor, was appointed the Darold and Debbie Davis Cornerstone teaching scholar.

**Scott Schiff**, teaching professor, was named as the recipient of the 2022 Bob and Bernita Thorn ASCE Outstanding Advisor Award.

## New faculty and staff



**David V. Rosowsky** has joined K-State as a professor of civil engineering and vice president for research. As vice president for research at K-State, he has administrative responsibility for units that support the university's research infrastructure, including the Office of Research Development, PreAward Services, the University Research Compliance Office and more. Several of the university's independent,

interdisciplinary research facilities and research support facilities also report to him. Additionally, Rosowsky serves as chair of the board of directors for K-State Innovation Partners, the university's hub of corporate engagement, technology commercialization and economic development.

Rosowsky has a doctoral degree in civil/structural engineering from Johns Hopkins University. He earned bachelor's and master's degrees in civil engineering from Tufts University. He served as provost and senior vice president at the University of Vermont from 2013-2019. As a recognized higher education thought-leader, Rosowsky also has been invited to speak with university leadership teams, boards and foundations on higher education leadership, finances, governance, partnerships, innovation and entrepreneurship, particularly in the context of preparing for the post-pandemic era in higher education.

As a researcher, Rosowsky has supervised more than 50 graduate students and postdocs and has authored or co-authored more than 160 papers in peer-reviewed journals and more than 140 papers as part of conference proceedings. He also is a fellow of the American Society of Civil Engineers and the Structural Engineering Institute.



**Melissa Pierce** has started as an accountant. She had prior work experience in accounting with the agronomy department. She has a bachelor's in business administration from K-State.



**Clifford Temple** has been hired as a research technologist. He graduated with a bachelor's in mechanical engineering from K-State and has had many years of work and internship experience with Caterpillar Inc. and other companies.



**Erin Muirhead** has been hired as an event coordinator. She will be responsible for planning select conferences in the department and has a bachelor's degree from K-State.



**Michael Brannan**, a '69 graduate in geology and a '76 graduate in CE, endowed a lecture series for civil engineering and geology students at K-State with an objective of exposing students to the symbiotic nature and co-curricular career opportunities of engineering, geology and related fields of study.

After completing his CE degree, Brannan was employed by Van Gundy and Associates in Ellsworth, Kansas. Later he was employed with Phillips Petroleum in Oklahoma and then, with ConocoPhillips Onshore Civil/Geotechnical group. He worked on various projects related to soil investigation and improvement, foundation design, dredging, port facilities, concrete construction, LNG storage and erosion control until his passing in October 2021. The inaugural Michael Brannan lecture was hosted by the civil engineering and geology departments, K-State ASCE Student Chapter and Williston Geology Student Club in April 2022. The lecture entitled, "Energy Transition - Past, Present and Future Project Execution Techniques will Significantly Influence the Outcome," was given by Chris Covert, recently retired president and chairman of the executive leadership committee for North West Redwater Partnership and current civil engineering advisory council member.



**Slade Engstrom** ('03) received the 2022 Professional Progress Award from the Carl R. Ice College of Engineering. The Benton, Kansas native currently serves as the senior vice president/principal in the TranSystems Wichita office, where he oversees a number of KDOT and City of Wichita projects, as well as many national projects. He is involved

with a variety of professional organizations, including the Kansas Society of Professional Engineers, ASCE, ITE, ITS Heartland and American Public Works Association. He is a K-State Alumni Association life member and supporter. He is married to Jill Engstrom, a fellow alumnus, and has two daughters.



**Jimmy Lin**, Diamond Bar, California, serves as the Chairman of the Board for KOA Corporation, a traffic and transportation engineering and planning firm with clients throughout the U.S., as well as the United Arab Emirates, Taiwan and Mexico.

Born in Taiwan, Lin came to the U.S. in 1970. He received a master's degree in civil

engineering from K-State in 1973. He joined Bucher, Willis & Ratliff Partnership in Kansas City, Missouri, serving as partner in charge of all traffic projects. When it became a corporation, he was appointed president of the company, which grew to 16 offices.

"Having lived in Kansas for 32 years, I consider myself a Kansas native," Lin said.

He has more than 47 years of experience in transportation engineering and planning at the national and international levels. He has served as principal-in-charge or project manager on challenging and large-scale planning and design projects, including traffic engineering, regional transportation planning, railroad engineering, ITS planning and design, and highway and

freeway design projects, including 15 highway interchanges with more than \$500 million in construction.

Lin served four terms on the Leawood city council from 1985 to 1993. During his tenure, the city added a new municipal golf course and city hall, as well as an upscale regional shopping center. Later on, after moving to Southern California, he also served on the city council of Diamond Bar between 2015 and 2018, serving as its mayor in 2017.

Lin has been active in the American Council of Engineering Companies and served as the president of the Kansas chapter between 1989 and 1990, as well as the national director representing Kansas in 1990.

## 2022 Hall of Fame



**Cindy Wallis-Lage** ('85) has been inducted to the Carl R. Ice College of Engineering Hall of Fame as a member of the class of 2022. Induction to the hall is the highest honor bestowed on its alumni by the college. Honorees are recognized for their professional success and accomplishment, involvement with and support of the

College of Engineering, dedication to K-State, and professional and public service.

Wallis-Lage is an executive director at Black & Veatch, Kansas City, Missouri, where she is focused on enterprise-wide client

sustainability and resilience. A 36-year veteran, she served as president of Black & Veatch's water business for the past 10 years and is a member of the Black & Veatch board of directors. Wallis-Lage joined Black & Veatch in 1986 and is well known in the industry for her expertise in the treatment and reuse of water and wastewater resources. She is a champion for water's true value and its impact on sustainable communities. Wallis-Lage has been involved in more than 100 projects globally in both the municipal and industrial sectors. She joined the Black & Veatch board of directors in 2012 and currently serves on the board of directors for the U.S. Water Alliance and on the leadership council for Water For People. Wallis-Lage earned her master's degree in environmental health engineering from the University of Kansas. She also served on the Civil Engineering Advisory Council and the College of Engineering Advisory Council at K-State.

Last fall, Wallis-Lage delivered the inaugural invited lecture in environmental engineering as part of the CE graduate seminar series. A reception followed to honor her for the membership on the National Academy of Engineering with a commemorative plaque from the CE department.



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