DEPARTMENT OF **CIVIL, ENVIRONMENTAL & CONSTRUCTION ENGINEERING**

TEXAS TECH
Whitacre College of Engineering

CECE Connections

Issue 5 | Fall 2025

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CECE
Fast Facts

Number of Undergraduate Students - 743

Number of Graduate Students - 128

Number of faculty - 40

Producing world class, adaptable, and impactful engineers by prioritizing personal, empathetic, and long-term relationships between faculty, staff, and students

MESSAGE FROM THE CHAIR

Andrew Jackson, PhD, PE, BCEE, F.AAAS
Department Chair

Greetings! The CECE Department has had another tremendous year, and this edition of CECE Connections reflects just how much our community continues to accomplish. Inside, you'll find highlights from our students, faculty, staff, and alumni. Each story is a reminder of the momentum we're building together.

Our graduates again achieved essentially 100% job placement, with many students receiving multiple offers. Enrollment this fall remains strong, with 577 Civil Engineering, 108 Construction Engineering, 87 Environmental Engineering majors, and 128 graduate students across all disciplines. Our student organizations continue to distinguish themselves in regional and national competitions, and this year we were excited to welcome a new student chapter of the Structural Engineering Association of Texas. Students remain our top priority, and I'm proud to share that this commitment was recognized with the University Departmental Excellence in Teaching Award.

We are also pleased to introduce four new faculty members who bring unique expertise and energy to the department. Our existing faculty have had an outstanding year as well. Research activity remains strong, even in a challenging funding climate. You'll read about several new initiatives underway, including the Produced Water Consortium led by Dr. Shane Walker. I encourage you to read their profiles and learn more about the work they're doing.

In addition, the newly approved Construction Engineering Technology Program has received final approval from the Texas Higher Education Coordinating Board, and we are beginning a search for its Program Lead. This program has been generously endowed by John and Paige Bick, for whom it will be named.

Finally, I want to extend a heartfelt thank-you to our alumni for the remarkable support you continue to provide. Your contributions to the profession, your communities, and society are a source of pride for all of us at CECE. This fall we saw record attendance at the annual meeting of the Civil Engineering Academy, and we hope to see even more of you next year. We love hearing from you, so please stop by or send us a note anytime. Your continued involvement is vital to our success, and we're grateful to share this journey with you. Your engagement and generosity, including several newly endowed scholarships and fellowships, directly strengthen the department and its mission to educate the next generation of Red Raider Engineers.

NEW FACULTY AND PROMOTIONS

Dr. Guangzhao Chen is an Assistant Professor of Structural/Wind Engineering. He obtained his M.S. and Ph.D. degrees in Civil Engineering from the University of Illinois at Urbana-Champaign, followed by postdoctoral work at Florida International University, where he worked on National Full Scale Testing Infrastructure for Community Hardening in Extreme Wind, Surge, and Wave Events (NICHE). His research group seeks to bridge wind engineering, structural engineering, and computational intelligence to design next-generation solutions to protect communities from multiple hazards.

Dr.Wenjie Fei is an Assistant Professor of Environmental Engineering. She earned her Ph.D. in Chemical Engineering from Columbia University, M.S. from Penn State in Chemical Engineering, and a B.S. in Chemical Engineering and Chemistry from the University of Minnesota–Twin Cities. She previously worked as a Research Engineer at PPG's Coating Innovation Center, developing advanced coating technologies. Her research focuses on colloidal interactions, pollutant characterization, and membrane transport with applications in water, energy, and health.

Dr. Mikias Workneh Gugssa is an Assistant Professor of Construction Engineering. He obtained his B.Sc. and M.Sc. in Civil Engineering from Addis Ababa Institute of Technology, Ethiopia and his PhD from Mississippi State University. He has over seven years of experience in managing infrastructure projects for different organizations across Ethiopia. His research focuses on advanced technology-based construction safety, integrating cutting edge computing, deep learning, and virtual reality.

Dr. Seonggyu Park is an Assistant Professor of Environmental/Water Resources Engineering. He earned his B.S. and M.S. degrees in Environmental Engineering from the University of Suwon, South Korea, and a Ph.D. in Groundwater Engineering in Civil and Environmental Engineering from Colorado State University. After completing his Ph.D., he joined the Texas A&M AgriLife Research Center as a Postdoctoral Research Associate in 2018 and was promoted to assistant research scientist in 2021. His expertise is in developing hydrologic models for identifying present and future water resources management strategies.

Dr. Tewodros Ghebrab, Promoted to Associate Professor

Dr. Ali Nejat, Promoted to Professor

Dr. Wei Zhang, Granted Tenure

New Degree in "Construction Engineering Technology" is Approved, Thanks to Generous $5M Gift from the Bick Family

Texas Tech University is excited to announce that the Bachelor of Science in Construction Engineering Technology (BS CET) has received final approval from the Texas Higher Education Coordinating Board, following earlier approval by the TTU System Board of Regents. The BS CET degree will be offered exclusively through an in-person format. It is also a formula-funded model – meaning that the program will be included in the Texas Tech state-funded budget. This approval marks an excellent step forward as it bridges a critical gap of merging hands-on construction skills with advanced engineering technologies.

John and Paige Bick, proud alumni who have consistently supported Texas Tech for the past 36 years, donated 5 million dollars to help revive the formally dormant program. In recognition of their enduring philanthropy and generosity, the program will be named the John & Paige Bick Construction Engineering Technology Program.

Image: John and Paige Bick

CECE Department honored with the Teaching Academy's Departmental Excellence in Teaching Award

The CECE Department has been awarded the Departmental Excellence in Teaching Award by the Texas Tech Teaching Academy. This award is in recognition of our unique and significant contributions to the teaching mission of the University.

Image:CECE Associate Professor Dr. Kayleigh Millerick accepts the Departmental Excellence in Teaching Award. Dr. Millerick was instrumental in nominating the department for the award.

Image: Inaugural graduate student and faculty soccer match – an activity funded by this award.

DEPARTMENT EVENTS

Symposium: Wind Science and Engineering Research, Education, and Practice; and Honoring Professor Kishor C. Mehta

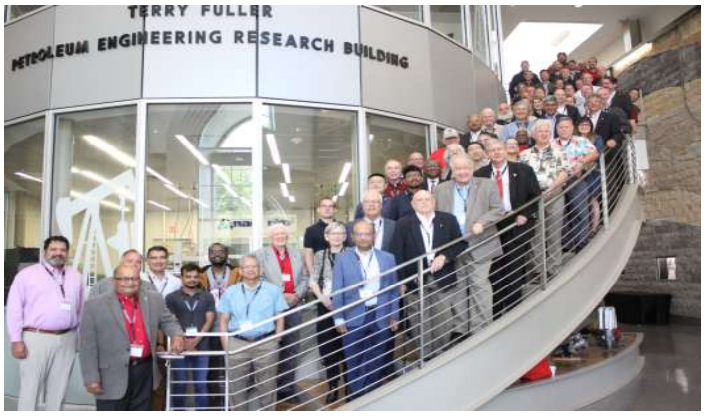


Image: Group photo of all the participants at the Symposium at the Petroleum Engineering Building. Credit goes to CECE.

The Civil Engineering Department and the National Wind Institute at Texas Tech University recently hosted the Symposium on Wind Science and Engineering Research, Education, and Practice. In attendance was a community of scholars and professionals from across the world who presented ongoing and completed projects, including keynote addresses.

The first keynote speaker was Dr. John Holmes. Dr. Holmes had previously spent seven years at James Cook University and fourteen years at CSIRO, where he became Chief Research Scientist. He also held roles as Principal Research Fellow at Monash University and was a visiting professor at several North American universities. At the Symposium Dr. Holmes presented on the "Analysis and Prediction of Extreme Wind Speeds and Wind Loads, Including the Effect of Wind Direction."

The second keynote speaker was Dr. Yukio Tamura. Dr. Tamura is a Professor at the School of Civil Engineering, Chongqing University, China. He is concurrently working for Tokyo Polytechnic University (TPU), Japan, as a Professor Emeritus. He is also serving as the Honorary Director and Program Coordinator of TPU Wind Engineering Joint Usage/ Research Center. At the Symposium Dr. Tamura presented on the "Effects of Severe Local Storms on Buildings and Structures in Asia."

The Symposium was also a special celebration honoring Dr. Kishor C. Mehta, a distinguished Horn Professor here at Texas Tech University. Coinciding with the Symposium event on Wind Science and Engineering Research, Education, and Practice, this celebration recognized Dr. Mehta's extraordinary contributions to the fields of structural and wind engineering. In recognition of his exceptional achievements, Dr. Mehta was honored with an award presented by the National Wind Institute.

In his career, Dr. Mehta has worked on various projects focusing on wind loads, damage analysis, wind engineering, designs for tornadoes and hurricanes, and interdisciplinary research and studies. In addition to his extensive research contributions, Dr. Mehta has authored over 200 scholarly works, including refereed publications, books & chapters, and publications in proceedings. His expertise has been widely recognized, earning him numerous invitations to deliver lectures and short courses. Beyond his research, publications, and lectures, Dr. Mehta has mentored countless students and professionals, leaving an enduring legacy in both academia and the engineering community.

Image: From left to right: David Damian (Dr. Mehta's son-in-law, married to Anna), Anna Damian (Dr. Mehta's third child and only daughter), David Mehta (Dr. Mehta's eldest son), Dr. Kishor C. Mehta, Jatin Mehta (Dr. Mehta's second son), and Raj Mehta (Dr. Mehta's youngest child). Credit goes to NWI.

DEPARTMENT EVENTS

CECE Hosts Inaugural Resilience and Housing Summit at Texas Tech University

The Center for Excellence in Community Engagement (CECE) hosted its inaugural Resilience and Affordable Housing Summit on October 16th 2025 at Texas Tech University, made possible through generous support from the U.S. Department of Housing and Urban Development (HUD). The event brought together research fellows, partner institutions, advisory panel members, and distinguished guest speakers for a dynamic day of conversations focused on improving community resilience in the United States and abroad.

Over 22 million Americans live in unsubsidized manufactured homes, many in flood-prone areas. Long-term resilience will require addressing chronic funding shortages, modernizing land-use policies, protecting renters, and ensuring true housing affordability. Key insights from the summit included: the importance of community-centered recovery before and after disasters, the need for community-based self-reliance strategies such as risk assessments and retrofitting techniques, and the need for local capacity building through partnerships with universities and community training hubs. Additional needs to aid local communities and governments are technical expertise in disaster recovery, as well as evidence-based tools to prepare, respond, and rebuild.

Looking ahead, CECE plans to use the momentum from the summit to expand partnerships, strengthen community engagement efforts, and guide research initiatives that support more equitable and sustainable housing solutions. The inaugural summit marks an important step forward in CECE's mission to empower communities and advance resilience-focused research across Texas and beyond.

Image: A Department of Housing and Urban Development Center for Excellence in Community Engagement inaugural summit on Resilience and Affordable Housing, October 16, 2025.

Dr. Girma Bitsuamlak Presents McDonald-Mehta Lecture on Digital Twin Technology for Wind Engineering

Image: Dr. Girma Bitsuamlak

The National Wind Institute (NWI) hosted Dr. Girma Bitsuamlak for the McDonald-Mehta Lecture, “Digital Twin for Wind Engineering: Synergizing CFD, AI, and Wind Tunnel Testing,” on Friday, October 3, and drew students, faculty, and researchers interested in the future of wind engineering and climate-responsive design.

Dr. Bitsuamlak, Professor of Civil and Environmental Engineering at Western University and Director of the WindEEE Research Facilities, presented his cutting-edge research on integrating digital twin technology, Computational Fluid Dynamics (CFD), Artificial Intelligence (AI), and wind tunnel testing in order to improve resilience and sustainability in structural design. Dr. Bitsuamlak discussed how this integration helps address complex multi-physics challenges such as hurricane and tornado resilience, aerodynamic optimization, and wind-driven thermal performance in modern architecture.

In his lecture, Dr. Bitsuamlak also emphasized that while traditional wind tunnels and field measurements remain vital tools, the synergy of these methods with advanced simulations and AI signifies a major evolution in wind engineering. His work demonstrates how digital twins can transform how engineers design, monitor, and maintain structures in the face of increasingly severe climate events. and has contributed to wind-induced load and response studies for some of the world’s most iconic skyscrapers—including Freedom Tower in New York, the International Commerce Center in Hong Kong, and Burj Khalifa in Dubai.

Dr. Judy Yang Presents Lecture on Multiscale Interactions in Aquatic Ecosystems

Image: Dr. Judy Yang

Dr. Judy Yang, Assistant Professor in the Department of Civil, Environmental, and Geo- Engineering at the University of Minnesota, presented a lecture titled “Multiscale Fluid, Sediment, and Biota Interaction in Aquatic Ecosystems” on Tuesday, October 22.

Dr. Yang’s research tackles pressing environmental challenges, such as coastal erosion and sediment-associated pollution, by examining the complex interactions among fluids, sediments, and biota (microbes and vegetation) across multiple scales. Her talk highlighted how micro-scale processes like biofilm formation and microbial aggregation influence large-scale sediment transport and ecosystem stability.

Integrating microfluidic and flume experiments, Dr. Yang’s group investigates biofilm dynamics, sediment transport, and hyporheic exchange. Their findings reveal how biological and physical factors together shape sediment stability, geomorphic evolution, and pollutant transport—offering key insights for erosion control, water quality, and ecosystem health.

A recipient of the NSF CAREER Award, ACS PRF New Doctoral Investigator Award, and the McKnight Land-Grant Professorship, Dr. Yang is also recognized as the Best Undergraduate Instructor (2022–2023) in her department and serves as an Associate Editor for Water Resources Research.

FACULTY SPOTLIGHT

Dr. Lin invited to Global Tsunami Model (GTM), Global Earthquake Model (GEM), and United Nations (UN)

Image: Dr. Ting Lin

In recognition of the International Day for Disaster Risk Reduction on October 13, we highlight Dr. Ting Lin, whose research connects earthquake engineering, climate science, and global disaster policy.

Dr. Lin was recently invited to join the Global Tsunami Model (GTM), a new international organization dedicated to improving tsunami hazard and risk modeling. As one of only four U.S. experts involved, she brings expertise in seismic and climate-related hazards to help strengthen coastal resilience worldwide.

Her work with the GTM builds on her ongoing research with the Global Earthquake Model (GEM) initiative, where she helped develop integrated frameworks that combine seismic, tsunami, and sea-level rise data. This interdisciplinary approach is the foundation of her Global Sea-Level Rise Model (GSLRM), which projects long-term risks from polar ice melt and ocean thermal expansion under different climate scenarios, from 2020 to 2100.

"Sea-level rise and coastal flooding are increasing threats, especially when combined with earthquakes and tsunamis, " Dr. Lin explains. "By connecting these hazards, we can better understand how compounding risks affect nearly 40% of the world's population living near coastlines." Dr. Lin also contributed to the United Nations' Global Assessment Report (GAR) 2025, which will feature a foreword by the UN Secretary-General, and she is preparing to speak at the Global Platform for Disaster Risk Reduction (GP2025) next year.

Her work underscores the value of international collaboration, "we need scientists, policymakers, and communities working together," she says.

To future researchers, Dr. Lin offers this advice: "Stay curious, stay passionate, think long-term, and keep persevering. The challenges are vast—but so are the opportunities to make a difference."

An In-Depth Look at Dr. Kishor C. Mehta's Life and Legacy

For Dr. Kishor C. Mehta, one defining moment in his distinguished career came when he was elected to the National Academy of Engineering (NAE), one of the highest honors in the profession. He vividly remembers the day the President of Texas Tech University left a voicemail delivering the news. The moment felt surreal. With only about 2,500 members nationwide, election to the NAE recognizes exceptional contributions from all disciplines within engineering.

Image: Dr. Kishor C. Mehta

For Dr. Mehta, NAE membership was not only validation of decades of research and leadership but

also a deeply humbling milestone which reflected years of dedication, collaboration, and perseverance.

Dr. Metha has been shaped by many mentors and colleagues throughout his career and life; however, two individuals stand out. The first is his longtime colleague and friend, Dr Joe Minor. Dr Mehta admired Joe's ability to bring people together and foster collaboration. From Dr. Minor, Dr. Mehta learned the importance of teamwork, communication, and community in advancing science and engineering, and the two remained close collaborators for more than 15 years.

Dr Metha was also inspired daily by his wife Mary Ann Mehta. Her unwavering support and tireless work ethic grounded his professional achievements. She balanced her career and family life with grace, setting an example of dedication and strength that continues to inspire him. Dr. Mehta credits her as a constant source of encouragement throughout his decades-long academic and research career.

Beyond his many honors and accomplishments, Dr. Mehta finds great pride in his family. Watching his children build fulfilling careers and lead with compassion has been his most meaningful reward. His daughter, Dr. Anna Damian, became a family physician devoted to patient care. His eldest son, Dr. David Mehta, combined a background in bioengineering with a medical career as an OBGYN and surgeon. His second son, Dr. Jatin Mehta, followed his passion for animals and became a veterinarian, while his youngest, Raajan, pursued a career in engineering, continuing his father's legacy in the field. The three eldest have since retired after long and successful careers, while Raajan remains active in the profession.

Seeing his children's achievements, grounded in hard work and compassion, gives Dr. Mehta a profound sense of fulfillment. "There's nothing more meaningful," he reflects, "than watching your family carry forward the same values that guided your own life." For Dr. Mehta, success has never been about titles or recognition, but about impact, integrity, and the people who share the journey.

Reflecting on his professional path, Dr. Mehta says he would advise his younger self to embrace every opportunity, even the ones that seem uncertain or beyond reach. "Sometimes," he says, "the best opportunities come disguised as challenges." His message to future engineers and researchers is clear: step forward, take risks, and learn from each experience. It's often through uncertainty that growth and discovery occur.

Dr. Clifford B. Fedler Organized and Led the Okavango Research Institute (ORI) Workshop in Maun, Botswana

Image: Dr. Clifford B. Fedler

The Okavango Research Institute (ORI) in Botswana recently held a workshop that focused on youth empowerment, food security, and sustainable development. The program was led by Dr. Clifford B. Fedler, a professor at Texas Tech University specializing in environmental and water resources engineering. The week-long aquaculture and business training workshop (May 5–10, 2025) equipped participants with practical skills in fish farming and entrepreneurship, giving them tools to address challenges in food supply, youth employment, and economic diversification. Dr. Fedler's involvement stemmed from an international mentoring program through the U.S. Department of State's Mandela Washington Fellowship, where he mentored a fellow hosted at Texas Tech University. While working with his assigned fellow and listening to the fellows' presentations of their goals, Dr. Fedler met two others who took an interest in his area of

specialty. The mission of working with aquaponics and aquaculture was the dream of the fellows involved. They envisioned empowering more people in their communities—many of whom already held BS degrees—with the knowledge and skills needed to run their own aquaponics businesses in the Maun, Botswana area. Dr. Fedler's goal was to educate them about the processes involved in that business and to help them develop business plans so they could launch their own enterprises. The workshop structure emphasized both technical knowledge and entrepreneurial planning, covering everything from small- to large-scale aquaponic operations and equipment selection to business plan development. Hands-on experience was provided during a field visit to a small municipal aquaculture facility.

The response from local youth was overwhelmingly positive. Even after the conclusion of the in-person sessions, the momentum has continued. Dr. Fedler has remained in continuous contact with both the on-site organizers and many of the participants. The university involved is assisting in data collection and has requested the development of a cooperative research program to support the participants and others.

In the long term, the training aimed to provide a lasting solution to regional food insecurity. Rather than providing food aid, the program empowered individuals to produce their own protein sources, fostering independence and resilience in their communities.

For professionals or researchers considering similar international development projects, Dr. Fedler offers a simple but powerful recommendation. Just do it! The rewards are great, and the impact can be long-lasting. These experiences not only help many people but also offer opportunities to further develop one's own research programs.

Image: Dr. Clifford B. Fedler engages in a one-on-one discussion with a participant

Professor Yuexiao Shen Joins NSF Convergence Accelerator Phase 2 Project on PFAS Remediation

Texas Tech's Dr. Yuexiao Shen, Assistant Professor in Environmental Engineering, has been the recipient of multiple research grants this past year, including a $5 million NSF Convergence Accelerator Phase 2 Award titled "Bio-Inspired and Biocatalytic Degradation of 'Forever Chemicals'," led by Chao Zhou of Geosyntec Consultants, Inc.

The convergence research will be supported by interdisciplinary teams from Texas Tech University, San Diego State University, University of California Riverside, and Virginia Polytechnic Institute and

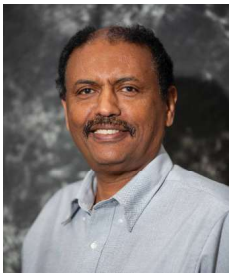
Image: Dr. Yuexiao Shen

State University, bringing together expertise in PFAS adsorption, destruction, catalyst design, bioremediation, and biological wastewater treatment. Dr. Shen has also been awarded an EPA grant on Developing fixed-bed column models for novel adsorbents to predict the removal of emerging micropollutants.

The goal of the project is to address the challenges of scaling up from lab scale experiments to column-based applications. Two novel adsorbents will be tested, macrocyclic polymers and porous organic frameworks, for the removal of pharmaceuticals and personal care products, endocrine disrupting chemicals, and polyfluorinated substances, and other micropollutants from water. Other faculty involved in this effort are: Drs. Jennifer Guelfo, Danny Reible, Balaji Rao, Shane Walker, Yimin Lu, and Xiaolong Shen from Texas Tech, Dr. Kailong Jin from Arizona State University, and Eric Dickenson from the Southern Nevada Water Authority.

CECE Thanks Faculty for their Service to the Department

Congratulations to Dr. Sang-Wook Bae, for his Award for 15-years of Service to Texas Tech!



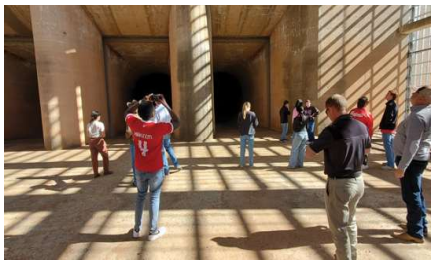
Congratulations to Dr. Tewodros Ghebrab, for his Award for 15-years of Service to Texas Tech!

Congratulations to Dr. Yuexiao Shen, for his Award for 5-years of Service to Texas Tech!

Congratulations to Dr. Amy Deonarine, for her Award for 5-years of Service to Texas Tech!

Dr. Ken Rainwater's Hydraulic Systems Class Visits Lake Meredith for Hands-on-Learning Experience

Field trip for CECE students from Dr. Ken Rainwater's CE 4353 Design of Hydraulic Systems course. They visited Lake Meredith, which is operated by the Canadian River Municipal Water Authority. They were hosted by the General Manager, Drew Satterwhite, and Deputy General Manager, Chad Pernell, both of whom are alums of the Civil Engineering department at Texas Tech. Dr. Ted Cleveland and Dr. Shane Walker also accompanied Dr. Rainwater and his class.



Images: Photos from the Student Field Trip

RESEARCH HIGHLIGHTS

Dr. Shen's Recent Publication on Reverse Osmosis Membranes

Dr. Yuexiao Shen, an Assistant Professor in the Department of Civil, Environmental & Construction Engineering at Texas Tech University's Edward E. Whitacre Jr. College of Engineering, has led a groundbreaking study that reveals the three-dimensional (3D) nanostructure of reverse osmosis membranes in their hydrated state. This major advancement, recently published in the journal Science Advances, marks a significant step forward in understanding and improving reverse osmosis-based water treatment technologies.

"This work not only solves a longstanding scientific challenge, but it also opens new pathways for improving desalination membranes to address global water scarcity," Dr. Shen said. By linking nanostructure to performance, the study paves the way for engineering more efficient reverse osmosis membranes, a critical step toward tackling water purification challenges worldwide.

Reverse osmosis membranes, which are critical for over 50 years in both large-scale municipal water treatment systems and compact residential filtration devices, rely on a selective layer just 100 to 200 nanometers thick. This layer's complex structure has long defied detailed analysis due to the challenges of imaging hydrated polymers. Dr. Shen's study overcomes these hurdles by utilizing cryo-electron tomography to visualize the nanoscale structure of the reverse osmosis membranes under conditions mimicking real-world water treatment environments, offering novel insights into the membrane's internal structure. The study's findings reveal intricate hydrated nodular networks within the membranes.

Detailed 3D models show that water and salt transport primarily occur through nodules formed by nanobubbles during membrane fabrication. Well-developed nodules feature thin walls measuring 17.2 ± 2.8 nanometers, while underdeveloped nodules result in denser layers nearly four times thicker. These structural differences directly correlate with water permeability, providing new insights into how membrane design can be optimized for enhanced performance.

Dr. Ali Nejat awarded 2 Grants!

ReDDDoT Phase 1: Planning Grant: Building Community-Driven Resilience andEmpowerment through Adaptive Manufacturing Technologies

The Co-DREAM Techproject, "Building Community-Driven Resilience and Empowerment through Adaptive Manufacturing Technologies," addresses the gap in access to advanced building technologies in remote and mid-sized U.S. communities. It focuses on community-driven resilience and adaptive manufacturing to strengthen housing against hazards.The project integrates research, education, and outreach, leveraging human-centric and context-aware technologies to develop scalable, replicable solutions. Pilot projects in Texas and New Mexico aim to mitigate risks and create resilient housing, setting a nationwide standard for empowering communities through adaptable technological development.

NSF-NFRF: Retreating from risk (RFR)

Rising sea levels and extreme weather events are increasing flood risks for low-lying communities, making it urgent to develop equitable adaptation strategies. This project focuses on managed retreat (MR)—relocating people and infrastructure from vulnerable areas—as a way to reduce risks and promote social justice for disproportionately impacted groups. Collaborating with communities in the U.S., Canada, and Indonesia, the project will create actionable knowledge to support the adoption of managed retreat as a climate adaptation strategy. It also aims to develop decision-support tools to help community leaders implement these programs effectively. The project is part of a collaboration funded by the U.S. National Science Foundation and Canadian agencies.

Image: Dr. Ali Nejat

Advancing Human-Robot Synergy in Dynamic Environmental Conditions Through BU-Directional Adaptive Feedback Systems

Dr. Min Deng of Texas Tech University (TTU) has received a major National Science Foundation (NSF) grant to lead a groundbreaking project that develops and enhances human-robot interactions to improve collaborative industrial working environments such as construction and manufacturing. The project, titled "Collaborative Research: Advancing Human-Robot Synergy in Dynamic Environmental Conditions Through Bi-directional Adaptive Feedback Systems," is supported by the NSF Mind, Machine and Motor Nexus program. The overall award is $596,727, of which $404,441 allocated to researchers at TTU. Dr Deng's collaborators include researchers from TTU's Computer Science department and Texas A&M University's Construction Science program.

The project aims to make human-robot teamwork safer, smarter, and more intuitive. Although robots handle repetitive or risky tasks effectively, they often struggle to interpret human intent or stress. By sensing these or similar variables, robot behavior such as grip strength or movement speed can be modified to maximize teamwork and reduce cognitive load. Specifically, this work aims to address this communication gap by integrating physiological sensing—such as tracking heart rate, skin conductance, and eye movement—into robotic systems, allowing robots to recognize and respond to human states in real time. This feedback, termed "passive assistance," allows bi-directional data to maximize safety and reduce human strain. Further, human robot interactions can be optimized for general user trends or be personalized for an individual worker.

The three-year project will use pilot studies, algorithm development, and field testing on active construction sites collaboratively with industry partners. This funding will support at least three PhD students, and all developed algorithms will be made available via open-source databases. Beyond research, the team plans to conduct K-12 outreach actives to inspire interest in robotics and various civil engineering disciplines.

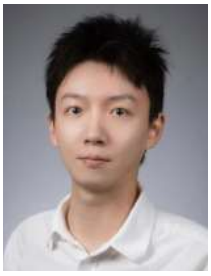


Image: Dr. Min Deng

Ultimately, this NSF-funded project aims to redefine human-robot teamwork. By blending physiological sensing with adaptive learning, Dr. Deng's work could revolutionize how robots understand and respond to people—creating safer, more efficient, and human-aware industrial environments.

Advancing Water Sustainability Through Innovative Reuse of Desalination Projects

Image: Dr. Shane Walker

Dr. Shane Walker – a professor and director of the Water and Environment Research (WATER) Center – is advancing sustainable water solutions in the areas of inland brackish groundwater desalination, potable reuse, and the beneficial reuse of polished desalinated produced water. These efforts aim to address growing water scarcity challenges across Texas and beyond.

The projects are strong interdisciplinary collaborations, bringing together experts from the Water and Environmental Research Center, the Department of Natural Resources Management in the Davis College of Agriculture and Natural Resources, and the Department of Environmental Toxicology. By combining expertise in environmental engineering, toxicology, and resource management, the team is developing innovative and safe methods for treating and reusing non-traditional water sources. Over the next two years, the research group is expected to receive approximately $13 million in funding to continue and complete this vital work. This investment underscores the importance of their mission—to create reliable, sustainable, and environmentally responsible water management strategies that will benefit both communities and ecosystems for generations to come.

FACULTY AWARDS

Dr. Kishor Mehta Presented with the "Professor Emeritus" Award

Dr. Kishor Mehta was honored with the title of "Professor Emeritus" at the Faculty Honors Convocation, recognizing his lifelong contributions to wind engineering and public safety. His groundbreaking research and mentorship have shaped national standards and inspired generations of engineers. Thank you, Dr. Mehta!

Image: Dr. Kishor Mehta receiving the Professor Emeritus Awards

Dr. Danny Reible Presented with the "Professorship Award"

At the Faculty Honors Convocation, Dr. Danny Reible was presented the "Professorship Award," celebrating his leadership in environmental engineering and dedication to sustainable solutions. His work continues to make a global impact through research and education.

Dr. Reible has also been named the TTU Big 12 Faculty Member of the Year.

Image: Dr. Danny Reible

Dr. Clifford B. Fedler Awarded the Mandela Reciprocal Fellowship from the Department of State

Image: Dr. Clifford B. Fedler

Dr. Clifford B. Fedler has been recognized with the prestigious Mandela Reciprocal Fellowship for his outstanding international engagement and his commitment to empowering communities through applied research. This honor highlights his continued leadership in global sustainability and education initiatives supported through the U.S. Department of State. To learn more about Dr. Fedler's recent work and the impact of his fellowship, please see page 8.

Dr. Yuexiao Shen recognized by the American Academy of Environmental Engineers and Scientists as one of the 40 Under 40 Rising Stars in Environmental Engineering and Science

Image: Dr. Yuexiao Shen

This award recognizes his excellence in research over the past five years. Dr. Shen's commitment to research is invaluable to our department!

Dr. Mohammad “Mo” Najafi – A Leader in Trenchless Technology

The Texas Tech's Civil, Environmental, and Construction Engineering (CECE) Department proudly highlights the remarkable contributions of Dr. Mohammad “Mo” Najafi, a distinguished alumnus whose work has shaped the trenchless technology industry.

Dr. Najafi earned his bachelor’s degree in civil engineering from Texas Tech University in 1976, setting the foundation for an illustrious career in research, education, and industry advancements. With a deep-rooted passion for construction and infrastructure, Dr. Najafi pursued higher education, eventually obtaining his Ph.D. and becoming an Associate Professor of Civil Engineering at the University of Texas at Arlington (UTA).

Throughout his career, Dr. Najafi has made significant contributions to the development and promotion of trenchless technology. Trenchless technology is a construction method that installs or repairs underground infrastructure without digging up the surface. It is used to install or replace pipelines, gas lines, sewer systems, and more. As the founder and director of the Center for Underground Infrastructure Research and Education (CUIRE), he has played a crucial role in advancing research and fostering industry partnerships. His efforts have helped establish leading trenchless technology centers, including the North American Society for Trenchless Technology (NASTT) student chapter and the Trenchless Technology Center (TTC).

In addition to his academic achievements, Dr. Najafi is a prolific author, having written some of the most influential books on trenchless technologies. His works, including *“Trenchless Technology: Pipeline and Utility Design, Construction, and Renewal,”* serve as essential references for engineers, researchers, and students alike. His leadership in professional organizations, including ASCE and UESI, further underscores his commitment to advancing civil engineering practices.

Tech education is inspiring future engineers to push boundaries and lead in their respective fields. The CECE Department celebrates his achievements and contributions to the industry, reinforcing the department’s commitment to fostering leaders in civil engineering.

Image: Dr. Mohammad "Mo" Najafi

CECE Alumni Achievement: Lt. Cmdr. Victoria Gonzalez Named Military Engineer of the Year

The CECE Department proudly recognizes Lt. Cmdr. Victoria Gonzalez who was recently recognized as Military Engineer of the Year. She was honored during NAVFAC Washington's Quarterly Awards Ceremony, receiving the award from Commanding Officer Capt. Omarr Tobias.

Lt. Cmdr. Gonzalez leads a team of 40 professionals, overseeing 90 active construction projects valued at $163 million annually at the Naval Support Activity Bethesda and the Uniformed Services University. Under her leadership, her team has exceeded expectations, executing 350% of their original budget while maintaining excellence in critical infrastructure repairs. Her innovative use of Power BI and Power Automate software solutions has streamlined operations, reducing administrative workload by 92 man-hours per month, allowing greater focus on field operations. During severe weather events, she led emergency response efforts, restoring power to 4,600 personnel at Marine Corps Base Quantico.

She has also pioneered systematic improvements in HVAC systems, focusing on root-cause solutions rather than temporary fixes. Her strategic approach to contractor oversight and facility management has significantly enhanced operations at Walter Reed National Military Medical Center.

Image: Congratulations to Lt. Cmdr. Victoria Gonzalez on this well-deserved recognition!

CECE Alum Paula Monaco Honored as 2025 WEAT Engineer of the Year

Image: Paula Monaco

The CECE Department at Texas Tech University proudly celebrates Paula Monaco, PhD, PE, on her achievement as the WEAT Engineer of the Year. Paula's dedication and expertise in water and wastewater engineering have earned her this prestigious recognition.

Currently a Project Manager and Team Lead at Plummer Associates, Inc., Paula oversees the Northwest Wastewater Treatment team, supervising engineers on projects in Texas and Colorado. Since joining Plummer in 2016, she has gained experience in process modeling and design for water and wastewater facilities. As the Biowin champion for Plummer's modeling group, Paula advances technical capabilities and mentors young engineers. Her strong communication and leadership skills have fostered relationships with clients, contractors, and design teams. Paula has been a leader in WEAT since early in her career, helping organize the Eckenfelder Lecture Series and the WEAT North Texas Section February Seminar. She is also committed to mentoring emerging professionals. The CECE Department is proud to count her among its distinguished alumni and looks forward to her continued success.

Distinguished Engineer: Dr. Marc Levitan's Legacy in Wind Engineering and Disaster Resilience

Image: From left to right: Dr. Delong Zuo, Dr. Kishor C. Mehta, Dr. Marc Levitan, and additional attendees of the event.

Dr. Marc Levitan graduated from Texas Tech with dual bachelor's degrees in Architecture and Civil Engineering (1985), M.S. in Civil Engineering (1988), and a Ph.D. in Civil Engineering (1993). Dr. Levitan is a prominent Texas Tech alum in wind engineering, particularly in tornado and hurricane research. His work has informed local and national building standards and codes, helped shape Federal Emergency Management Agency (FEMA) guidelines, and influenced how communities rebuild after disasters. Dr. Levitan was the Managing Director of the Wind Engineering Research Field Laboratory at Texas Tech University for five years, studying wind effects on full-scale buildings. After this, Dr. Levitan moved to Louisiana State University (LSU), where he was a professor in Civil Engineering

(1993-2011) and founded the LSU Hurricane Center, serving as director from 1999 to 2009. Dr. Levitan's team at the Hurricane Center led innovative post-disaster field studies. He recalls working in hard-hit areas after major hurricanes such as Katrina and Rita, interviewing survivors and documenting structural performance. These insights led to the development of improved hurricane-related building codes and engineering practices.

Since 2011, Dr. Levitan has worked at the National Institute of Standards and Technology (NIST). He served as Acting Director of the National Windstorm Impact Reduction Program (NWIRP) from 2015-2018, and Lead Research Engineer for NWIRP after that. His efforts focus on reducing loss of life and property from windstorms through research and the development of improved wind loading codes and standards.

He has led NIST's investigations into the 2011 Joplin, Missouri, and 2013 Newcastle-Moore, Oklahoma EF-5 tornadoes, driving transformational changes in how tornadoes are considered in building design.

His efforts include improving design standards for tornado shelters, leading development of the first-ever tornado resistant design requirements for conventional construction in US model building codes, and supporting federal initiatives to strengthen community resilience. By translating research into actionable guidance, he continues to bridge the gap between scientific findings and on-the-ground safety.

Distinguished Engineer: Jennafer (Jenna) Piper Covington

Jennafer (Jenna) Piper Covington is a leader in the Texas water utility industry, currently serving as Executive Director and General Manager of the North Texas Municipal Water District (NTMWD). In this role, she oversees water, wastewater, and solid waste services for over 2.3 million residents across 80 communities in one of the nation's fastest-growing regions.

Image: Jennafer (Jenna) Piper Covington

Originally from Odessa, Texas, Jenna developed an early interest in engineering by assisting her father, a land surveyor. She went on to earn both bachelor's and master's degrees in Environmental Engineering from Texas Tech University, where she was also involved in student leadership roles. These included serving on the Executive Board of the Alpha Delta Pi sorority, Student Senator, president of the Texas Society of Professional Engineers, and founding president of the Society of Environmental Professionals.

After graduating in 2001, Jenna launched her career with CH2M HILL, where she worked on water and wastewater treatment, reuse, and infrastructure projects. Her roles included Vice President, Project Manager, and Client Portfolio Manager. In 2015, she joined NTMWD as Assistant Deputy for Wastewater, where she focused on workforce development, asset management, and regional infrastructure expansion.

In 2021, Jenna was appointed as Executive Director of the NTMWD. She continues to lead NTMWD with a vision for operational excellence, regional collaboration, and long-term sustainability. She is a licensed Professional Engineer in Texas and a Board Certified Environmental Engineer.

Her honors include induction into the Texas Tech Civil, Environmental, and Construction Engineering Academy, the Water Environment Federation Arthur Sidney Bedell Award, and the Water Environment Association of Texas Emerging Leader, and recognition as a Distinguished Engineer by the Texas Tech University College of Engineering. She currently also serves as Secretary of the Texas Water Development Board's Region C Water Planning Group and holds board positions with the Texas Water Association and the John Bunker Sands Wetland Center.

Jenna lives in Allen, Texas, with her husband Paul, a fellow Texas Tech engineering graduate, and their three children—Greyson, Piper, and Claire—who are active in soccer and community life.

PHD GRADUATE SPOTLIGHT

Dr. Yongli Wang Uncovers Microbial Drivers of Mercury Cycling

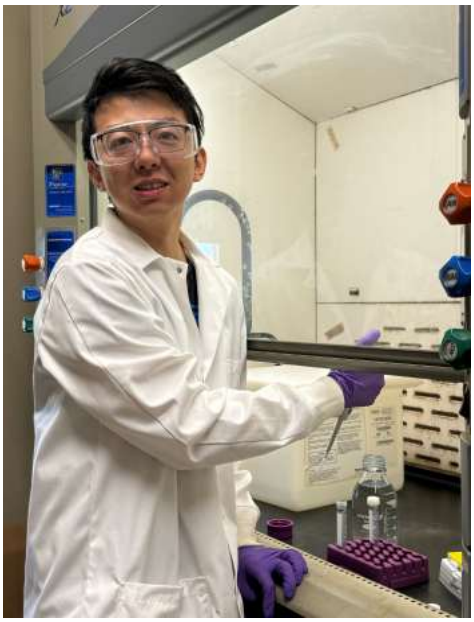


Image: Dr. Yongli Wang

Dr. Yongli Wang graduated in May 2025 with a PhD in Environmental Engineering, advised by Dr. Amrika Deonarine. Dr. Wang has already begun a position with GeoSyntec as an environmental consultant.

About his research:

“Investigating the Microbial Mechanisms of Mercury Methylation: Community Composition and Biogeochemical Interactions”.

Mercury (Hg) methylation is a complex biogeochemical process influenced by microbes and microbial interactions, environmental conditions, and genetic mechanisms. This dissertation investigates the microbial ecology of Hg methylation and demethylation across diverse ecosystems, exploring the roles of both Hg-methylating and non-methylating taxa, the genetic basis of Hg transformations, and the environmental drivers of these processes. Statistical and network analyses of marine and freshwater sediments revealed that non-Hg methylating taxa play key roles in Hg cycling, supporting methylators through syntrophic interactions in sulfur, carbon, and nitrogen cycles.

A metagenomic analysis of 281 sediment samples identified novel Hg methylators and widespread horizontal gene transfer of hgcA/B, highlighting microbial adaptation and genetic exchange in Hg methylation, including the discovery of hgcA-carrying anammox bacteria. Further, metagenomic analysis of 61 wastewater treatment plants (WWTPs) showed they harbor both Hg-methylating and demethylating microbes, acting as hotspots for gene transfer and influencing Hg cycling in downstream ecosystems. Controlled flooding experiments of lake sediments revealed that redox shifts drive Hg methylation by promoting anaerobic conditions while suppressing demethylation, leading to increased methylmercury (MeHg) accumulation.

His research advances our understanding of microbial and environmental controls on Hg cycling, linking microbial ecology, genetic adaptation, and environmental shifts to better predict Hg dynamics and inform mitigation strategies.

Dr. Heejun Lee Improves Rigid Pavement Design in Texas with Field-Based Research

Image: Dr. Heejun Lee with Dr. Moon Won

Dr. Heejun Lee graduated in May of 2025 with a PhD in Transportation Engineering. Advised by Dr. Moon Won, Dr. Lee is all set to work as a Transportation & Materials Engineer in the California Department of Transportation (Caltrans).

About his research:

“Performance Evaluation & Design Improvements of Rigid Pavements in Texas”

This dissertation presents a comprehensive evaluation of rigid pavements in Texas, focusing on how they perform under real traffic and environmental conditions. With increasing truck volumes and infrastructure demands, the study assessed key factors like pavement deflection, cracking behavior, and long-term durability through extensive field testing and data analysis. The findings led to practical improvements in pavement design—such as better steel placement—which was adopted by the Texas Department of Transportation. By bridging the gap between lab-based assumptions and actual performance, this research provides engineers with more reliable, field-proven strategies to build longer-lasting and cost-efficient roads.

Image: Dr. Lee in action

Dr. Jessica LaFond Explores PFAS Biotransformation with Bacterial Allies and High-Resolution Mass Spectrometry

Dr. Jessica LaFond graduated in May of 2025 with a PhD in Environmental Engineering, co-advised by Dr. Andrew Jackson and Dr. Jennifer Guelfo. Dr. LaFond is planning to join the Bioanalytical Mass Spectrometry Group at Oak Ridge National Laboratories in Knoxville, Tennessee.

Image: Dr. Jessica LaFond

About her resesarch:

"Transformation of per-and polyfluoroalkyl substances from groundwater impacted by aqueous film forming foam using commonly occurring cometabolic organisms"

Her research focused on how bacteria transform per- and polyfluoroalkyl substances (PFAS). PFAS have been a research hotspot in the field the last couple years as they are a large (>15,000 compounds), stable, ubiquitous class of compounds that have been used in many industries (including fire-fighting) and found to be toxic at low concentrations (ng/L). Many PFAS go undetected due to a lack of analytical standards, and even the ones we have standards for, we know very little about their transformation. Her research focused on using high resolution mass spectrometry to identify and quantify PFAS without analytical standards and their biotransformation in aquifers impacted by aqueous film forming foam (AFFF). A main focus of this research included identifying oxygenase expressing bacteria that could cometabolically transform PFAS. The findings from this work contributed to our knowledge of PFAS fate in the environment, opened many interesting avenues for future investigations in PFAS biotransformation, and helped to lay the foundation for future bioremediation schemes.

Constructing Confidence: Jacob Sauder Places 2nd in Commercial Division Presentation

Congratulations to Jacob Sauder, a May 2025 graduate in Construction Management with a minor in Construction Engineering, for placing 2nd in Best Individual Presenter within the Commercial Division at the recent AGC student competition!

Image: Jacob Sauder

Reflecting on his journey, Jacob shares how much the AGC Student Chapter and CECE community have shaped his succes:

“Being a part of the AGC Student Chapter and the CECE community has been instrumental in my success. It allowed me to connect with like-minded peers and provided an opportunity to apply the knowledge gained in the classroom and through internships to real-world scenarios.”

His confidence and career goals have also grown through these experiences:

“The AGC competitions have significantly enhanced my confidence and helped shape my career aspirations. These experiences have shown me that even within a relatively short time at Texas Tech University, we as students are equipped with a level of knowledge that many entering the workforce have yet to attain.”

To students considering AGC, Jacob offers this advice:

“Don’t let nerves stop you from joining something that can significantly shape your future. Being part of AGC has not only built my confidence, but it’s also made my resume worth its weight in gold.”

Connor Davidson Awarded MEXT Scholarship to Pursue Graduate Studies at the University of Tokyo

Connor Davidson, a 2025 graduate, has been offered a MEXT scholarship to the University of Tokyo’s International Graduate School, Japan. Davis is one of only eight international students who has received this award.

The MEXT Scholarship is a fully-funded academic scholarship provided by Japan’s Ministry of Education, Culture, Sports, Science, and Technology (MEXT). Established to strengthen international relations and promote cultural exchange, this scholarship offers international students the opportunity to study at Japanese universities. The University of Tokyo’s civil engineering department picks their international candidates and awards the scholarship through a recommendation to the Japanese government.

Connor will be joining the Civil Engineering department, and will work under Professor Tomonori Nagayama doing research in the infrastructure technology and design field. His research proposal is on “Smart Sensor Applications in Bridge Design”.

Image: Connor Davidson

Connor says that “the Civil Engineering Department has played a pivotal role in my academic journey and my pursuit of a scholarship to the University of Tokyo.

From the very beginning, I was a student with many questions, often seeking guidance beyond the classroom. I frequently visited professors during office hours, and without fail, they were always welcoming and willing to help. Even faculty members with whom I had no current classes, like Ms. Gurley and Dr. Germany, took the time to answer my questions.

STUDENT SPOTLIGHT

Balancing Cheer and Engineering: Morgan Herndon Excels in Faith, Academics, and Leadership

This Fall, Morgan Herndon is in the Student Spotlight! She's a dedicated and hardworking Civil and Environmental Engineering student who balances her commitments to faith, academics, work, and cheerleading. Morgan is on track to graduate in 2027.

What is it like balancing a Civil and Environmental Engineering degree with the demands of collegiate cheerleading? How do you manage both?

Balancing the demands of a Civil and Environmental Engineering degree with the commitment of collegiate cheerleading requires discipline, structure, and resilience. While it can be overwhelming at times, strong organizational skills and effective time management make a significant difference. Early morning cheer practices—from 5:00 AM to 8:30 AM—helps create a productive routine, allowing for the rest of the day to be focused on classes and homework.

Which skills from cheerleading have translated most effectively into your engineering coursework and projects?

Cheerleading taught me perseverance, integrity, and teamwork—values that are just as vital in engineering. These qualities are essential not just for an engineering degree, but for any academic pursuit. Success comes from continuing to work hard, even when it feels like no one is watching—because that unseen effort is often what pays off the most.

Teamwork also plays a crucial role, whether it involves collaborating with classmates or working with professionals in the field. Group projects benefit greatly from strong communication skills and the ability to understand different perspectives. Being willing to step into someone else's shoes can make all the difference.

What has been the most rewarding part of being involved in both cheer and engineering?

One of the most rewarding parts of balancing engineering and cheerleading is the variety of meaningful relationships formed along the way. It's been an enriching experience to connect with both cheer teammates and classmates outside of the cheer world. Having friends from such different circles creates a unique and balanced support system. Balancing a demanding major with extracurriculars is possible. The key is to set clear, intentional priorities. Decide early what your priority list is, for me it is faith first, academics second, and athletics last. It's crucial to always keep in mind: a student athlete is always student first, and athlete second.

What advice would you give incoming students who are nervous about balancing extracurricular activities with a demanding major?

For future students, particularly those interested in engineering, maintaining an open and flexible mindset is essential. Approaching problems and challenges from new perspectives—especially in courses like physics and statics—can make all the difference.

Which goals are you working toward as you look ahead academically, personally, or athletically?

Beyond the cherished memories, my focus in the future is to earn a PE license, which means studying and preparing for the FE exam. My full aim is to build a fulfilling career that involves travel.

Image: Morgan Herdon celebrating after winning Collegiate National Championships for Cheerleading in Daytona Florida, April 11th 2025! This photo is taken by Peyton Pierce, a Texas Tech Graduate 2025, now a Cheer Alum.

STUDENT AWARDS

Chi Epsilon Nominated for the Most Improved Organization of the Year

Chi Epsilon has been recognized by the Texas Tech Student Government Association as one of the Most Improved Organizations of the Year. This nomination reflects the hard work and dedication of the chapter's members and officers over the past year.

Former President Guadalupe Mendoza (pictured) accepted this nomination that highlighted the organization's accomplishments—from professional development events and community service projects to collaborations with ASCE, the Pie the Faculty fundraiser, and the Fall 2024 Initiation. Mendoza shared that this recognition represents the unity, drive, and heart of Chi Epsilon and expressed excitement for what the coming year will bring.

Image: President Guadalupe Mendoza

DBIA Team Secures First Place for the Fourth Consecutive Year

Our DBIA student team has once again achieved outstanding success, ranking first in the region for the fourth year in a row.

Image: CECE's DBIA student team celebrates earning first place in the region—marking their fourth consecutive regional championship.

SEAoT – New Student Organization of the Year Award

We are proud to share that the Structural Engineering Association of Texas (SEAoT) has been awarded the New Student Organization of the Year! Connect with them on Instagram (@ttu_seaot) to get involved with the organization, and feel free to message them on Instagram to join their email list.

Image: The SEAoT student members launched their first meeting at Texas Tech

Image: Guns up!

STUDENT AWARDS

Image: Isabella Gonzalez

THE STRUCTURAL ENGINEERS ASSOCIATION OF TEXAS

CECE ITE Team Takes 2nd Place in State Traffic Bowl Competition!

CECE's Institute of Transportation Engineers (ITE) won 2nd place in the state Traffic Bowl competition. Our team was the only team competing with all undergraduate students.

Image (left to right): Congratulations to Austin Bolden, Riaz Ogunleye, and Ryan Popp!

AGC Commercial Team Earns 3rd Place at TEXO Foundation Competition

Texas Tech's AGC Student Chapter Commercial Team placed 3rd in the TEXO Foundation Student Competition, presenting a comprehensive Request for Qualifications and Request for Proposals (RFQ/RFP) for The Epic, a 16-story office project originally built by Balfour Beatty in Dallas' Deep Ellum. The team's proposal included trade bids, a detailed construction schedule, and professional-level documentation—mirroring real-world industry standards. The team was supported by mentors Dr. Ali Nejat and Dr. Tewodros Ghebrab, with sponsorship from Turner Construction's Chase Luft and Amber Acklie. Jacob Sauder and Jacob Finley brought valuable experience from full-time internships and past AGC competition involvement. For Juan Martinez, Houston Juarez, Gustavo Perez, and Christopher Navia, this was their first large-scale competition.

"This win represents more than just the recognition; it's a reflection of the countless hours of preparation, collaboration, and mentorship that went into building something we're truly proud of. Competing in this environment gave us a taste of the real construction world and the confidence to step into our careers with a solid foundation. It's an experience that will stay with us and guide us throughout our professional lives."

Image (left to right): Gustavo Perez, Juan Martinez, Jacob Finley, Jacob Sauder, Christopher Navia, Dr. Ghebrab, Houston Juarez.

ACADEMY INDUCTEES

Congratulations to the Academy Inductees!

PE President of the CECE Academy, Jill Rankin, recognizing Michael “Hunter” Brennan, PE, BS, Associate and Senior Project Manager at Civitas Engineering Group, Inc.

Vice-President of the CECE Academy, Raj Mehta, recognizing Taylor Hale, BS, President of Muckleroy & Falls

PE President of the CECE Academy, Jill Rankin, recognizing Brenda Shroyer Bullard, PE, BS, MS, Senior Managing Director for Planning and Design in the Operations Division at TTU

PE President of the CECE Academy, Jill Rankin, recognizing Kirk Hughlett, CSI, LEED AP, Vice President and Chief Esitmator of Pre-Construction at Lee Lewis Construction Inc.

PE President of the CECE Academy, Jill Rankin, recognizing Cody Edwards, LEED AP, BS, Project Manager at Hensel Phelps

Vice-President of the CECE Academy, Raj Mehta, recognizing Lori Lusk, PE, MBA, BS, Senior PM and Shareholder at Kimley-Horn Associates

PE President of the CECE Academy, Jill Rankin, recognizing Thomas Finn, PE, BS, Associate Generatl Council at Lerch Bates Inc.

PE President of the CECE Academy, Jill Rankin, recognizing Marcus McShan, BS, Vice President of Mission Critical Operations at Rogers-O’Brien Construction, LLC

PE President of the CECE Academy, Jill Rankin, recognizing Paula Monaco, PE, BS, M.Eng, PhD, Project Manager and Team Lead at Plummer Associates, Inc. Specializing in Wastewater Treatment

Vice-President of the CECE Academy, Raj Mehta, recognizing Arpit Talati, PE, BS, Chief Operations Officer at Ardurra

ACADEMY INDUCTEES

PE President of the CECE Academy, Jill Rankin, recognizing Kayla A. Natividad, BS, MS, PhD, Well AP, LEED Green Associate, Architectural Technical Servives Manager and Leader at Pilkington North America

PE President of the CECE Academy, Jill Rankin, recognizing John A. Tyler, PE, RAS, BS, Vice President at Pape-Dawson

PE President of the CECE Academy, Jill Rankin, recognizing Jarred Overbey, PE, CFM, BS, Vice President and Operations Manager at Frisco Office Halff

PE President of the CECE Academy, Jill Rankin, recognizing Ronda Visintainer, PE, BS, President of Visintainer Engineering, PLLC

PE President of the CECE Academy, Jill Rankin, recognizing Wade Parks, PE, BS, MS, Water Business Team Leader for Southeast Texas at Garver

Vice-President of the CECE Academy, Raj Mehta, recognizing Cole Webb, PE, BS, Senior Vice President of Kimley-Horn

PE President of the CECE Academy, Jill Rankin, recognizing David Rivera, PE, BS, Vice President for Land Development at LJA Engineering Inc.

PE President of the CECE Academy, Jill Rankin, recognizing Guo Zheng "Henry" Yew, BS, MS, PhD, PE, Associate/ Senior Engineer at Curtain Wall Design & Consulting, Inc.

PE President of the CECE Academy, Jill Rankin, recognizing Steven R. Samuels, PE, BS, BA, MS, Senior Manager of Experi-mental Mechanics and Dynamics at Sandia National Laboratories

Vice-President of the CECE Academy, Raj Mehta, recognizing Jack Mitchell Young, PE, CFM, PMP, BS, Vice President and Deputy Practice Leader for the Hall Associates

In Memoriam: Tyson Cox, B.S. Engineering

NEW SCHOLARSHIPS AND ENDOWMENTS

Texas Tech University is proud to announce the establishment of several new scholarship and endowments that honor distinguished faculty, alumni, and friends. These support student achievement and continue to advance research in key fields.

Honoring Distinguished Faculty in Civil and Environmental Engineering:

Three new endowments have been created to honor Dr. Kishor Mehta, Dr. Ken Rainwater, and Dr. Scott Norville, three long-serving faculty members who dedicated their careers to mentoring and educating generations of civil and environmental engineering students at Texas Tech University.

Image: Dr. Kishor C. Mehta

The Mehta Graduate Scholarship in Structural Engineering was established in honor of Dr. Kishor Mehta, who has served Texas Tech University for an extraordinary 61 years.

Dr. Mehta is a well-known Horn Professor and has earned a reputation as an outstanding educator, advisor, and mentor. His decades of dedication to teaching, research, and student guidance have left a lasting impact on generations of structural engineering students, and this scholarship ensures that his legacy continues by supporting graduate students pursuing structural engineering at Texas Tech.

Image: Dr. Kin Rainwater

Dr. Ken Rainwater served as a faculty member for 37 years and was the Director of the Water Resource Center. He helped found the Environmental Engineering Program alongside Dr. Ramsey and taught a wide variety of courses in both water resources and environmental engineering. Dr. Rainwater was also admired for his willingness to advise and mentor students, serving as co-advisor for ASCE for 19 years. His dedication to research, teaching, and student guidance has left a lasting impact on the department and its students.

Image: Dr. Scott Norville

Dr. Scott Norville served the Department of Civil, Environmental, and Construction Engineering for over 41 years, including 11 years as department chair. He taught a wide range of structural engineering courses, from statics and solids to dynamics, where he became well-known. Beyond teaching, Dr. Norville played an instrumental role in shaping the department and inspiring countless students who have gone on to make meaningful contributions to the engineering profession.

These scholarships honor their decades of service by supporting the next generation of civil and environmental engineers. By contributing to these endowed scholarships, donors directly invest in the education and development of students who will continue the legacy of excellence set by Drs. Rainwater, Mehta, and Norville.

Texas Tech Announces $500,000 Evelyn Davies Graduate Environmental Engineering Fellowship

Image: Evelyn Davies

NEW SCHOLARSHIPS AND ENDOWMENTS

The Evelyn Davies Graduate Environmental Engineering Fellowship Endowment was established through a generous gift of $500,000 from Evelyn M. Davies to support graduate students in the Department of Environmental Engineering. This fellowship will provide critical funding for students pursuing advanced studies in environmental engineering, helping them focus on research, professional development, and innovative solutions to environmental challenges.

Evelyn Davies has a long history of supporting education at Texas Tech University. Through this fellowship, she continues her commitment to investing in students who will carry forward the legacy of excellence in environmental engineering, enabling the next generation of engineers to make meaningful contributions to their field.

Teinert Construction Engineering Scholarship

This scholarship was generously made possible by Teinert Construction to support students pursuing construction engineering or joining the construction engineering technology program.

Brett and Ricky Walker Engineering Scholarship

Donna Walker established this scholarship in honor of her husband, Ricky, and her son, Brett, who were both civil engineers. This scholarship will support future engineers who have an interest in transportation engineering.

Armstrong Family Endowed Scholarship in Environmental Engineering

This scholarship was created through the generosity of Oj and Marilyn Armstrong to support undergraduate students pursuing a degree in environmental engineering.

Image: The Armstrong Family

These gifts exemplify the strong commitment of Texas Tech alumni, faculty, and friends to student success and research advancement. By supporting these scholarships and professorships, donors help ensure that Texas Tech students continue to receive exceptional education and opportunities to make meaningful contributions to their fields.

Support Our Mission - Donate Today and Empower the Future

DEPARTMENT OF **CIVIL**,
ENVIRONMENTAL &
CONSTRUCTION ENGINEERING

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