



THE UNIVERSITY OF
MEMPHIS®

HERFF COLLEGE OF ENGINEERING

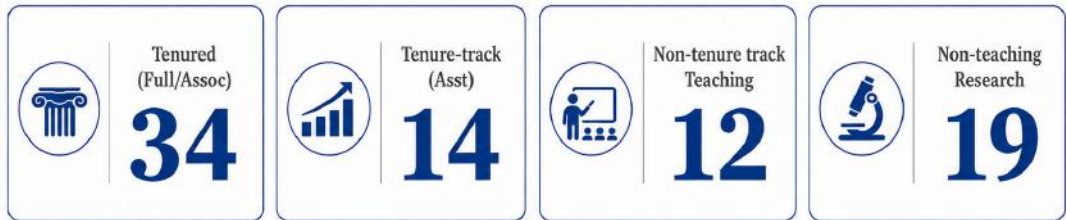
2026
Annual
REPORT

MEMPHIS RESEARCH

Transforming bold ideas into discoveries and solutions that address challenges here at home and around the world.

Full-time Faculty Fall 2025

Reported to ASEE



FY2026



36

NEW GRANTS



\$9,608,263

TOTAL FUNDING



\$15.4M

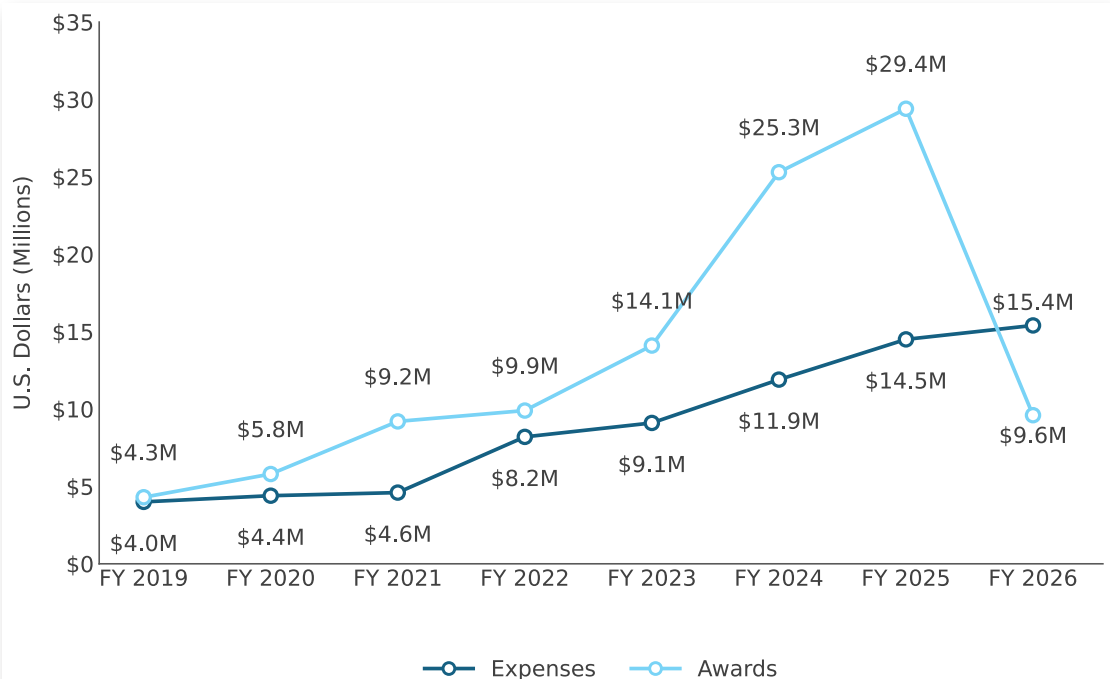
IN EXPENDITURES



156

PROPOSALS
TOTALING MORE THAN

\$76.5M



Dean's Message:

*A year of discovery
and impact...*

The stories and accomplishments highlighted in this annual report demonstrate what is possible when talented people come together with a shared commitment to student success, discovery and service. Across the Herff College of Engineering, our students, faculty, staff, alumni and partners are building on a strong foundation while creating new opportunities for our college, our community and the industries we serve.

This has been a year of meaningful momentum. Undergraduate enrollment increased significantly, reflecting growing interest in the educational experiences and career pathways available at Herff. During the 2025–26 academic year, the college awarded 291 degrees, preparing a new generation of engineers, researchers and technology professionals to enter the workforce, pursue advanced study and address complex challenges.

Our research enterprise also continued to advance. Herff researchers submitted 156 proposals totaling \$76.5 million and received 36 awards totaling \$9.6 million. This work represents more than impressive numbers. It reflects the expertise of our faculty, the contributions of our students and our shared determination to develop solutions with lasting societal and economic impact.

Throughout this report, you will meet members of the Herff community who embody that mission. Students are contributing to research in areas such as advanced materials, energy systems and soft robotics while also serving as leaders in professional organizations and campus initiatives. Our graduates are putting their education to work at organizations ranging from regional engineering firms and energy providers to NASA, where Herff expertise has contributed to the nation's return to deep-space exploration.



These individual achievements are strengthened by a culture of engagement. Internships, undergraduate research, graduate study, industry partnerships and faculty mentorship help students connect what they learn in the classroom with the needs of the world around them. Our alumni, donors and corporate partners further extend that impact through their guidance, advocacy and investment in our students.

As we look ahead, we remain focused on providing an accessible, rigorous and forward-looking engineering education. We will continue to strengthen pathways into the college, support innovative research, deepen relationships with industry and prepare graduates who can lead with technical expertise, creativity and purpose.

I am grateful to everyone who contributed to the progress represented in these pages. Your commitment ensures that the Herff College of Engineering remains a place where students discover their potential, ideas become solutions and a Memphis education creates an impact far beyond our campus.

Thank you for being part of the Herff community and for helping us build what comes next.

Sincerely,

Okenwa Okoli, Ph.D, CEng, CSci, FIMMM
Dean, Herff College of Engineering

Building more than prototypes...

Researcher. Leader. Problem-solver.
**Shaun Bowlin is making the most of
every opportunity at Herff.**

Shaun Bowlin ('27), a mechanical engineering undergraduate, is an active researcher and student leader at the Herff College of Engineering. As an undergraduate research assistant in the Dynamics, Systems and Controls Lab, Shaun works with Dr. Agarwal to study advanced materials for origami-inspired soft robotics.

His research focuses on polycatenated architected materials, or PAMs, and their potential use in rigid, multistable structures. His work includes reviewing existing research, developing and rapidly prototyping multiple designs and testing their strength across various configurations. He also communicates his findings through written reports and formal and informal presentations.

Shaun plans to advance the project by creating a metal prototype through additive manufacturing.

Since enrolling at the University of Memphis in August



UNDERGRADUATE RESEARCH SPOTLIGHT

2023, Shaun has distinguished himself academically and professionally. His coursework has included computer-aided design, mechanics of materials, dynamics and engineering materials. He holds an OSHA 10-hour safety certification and was named the Mechanical Engineering Outstanding Junior for spring 2026.

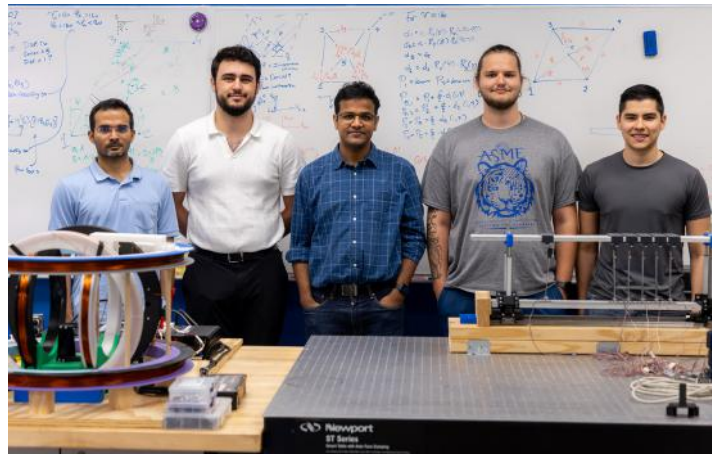
Beyond the classroom and laboratory, Shaun served as president of the American Society of Mechanical Engineers student chapter during the 2025-26 academic year. He also is involved in the American Institute of Aeronautics and Astronautics and Tau Beta Pi, the engineering honor society.

He credits his success to the strong sense of community he has found at Herff.

“Getting involved is what has made my college experience so special,” Shaun said. “The friendships I’ve built — whether studying late nights in the Engineering Research and Innovation Center or playing pickup soccer — have made all the difference.”

Shaun encourages younger students to establish strong academic habits early.

“Take your studies seriously from the start,” he said. “Developing good habits early will set you up for success later.”



Members of the Dynamics, Controls and Computing Lab (from left): Ayush Gupta (PhD candidate), Omar Haitham Alyousef (PhD candidate), Dr. Vipin Agarwal (PI), Shaun Bowlin ('27) and Javier Mauricio Zaraza Espinosa (PhD candidate).



From Herff to Impact

Three alumni are applying their education to advance aerospace exploration, energy systems and engineering innovation.



Randy Thornton (B.S. '99, M.S. '00) has built a distinguished career as an aerospace engineer and technical specialist at NASA's Marshall Space Flight Center. With expertise in advanced aerospace systems and engineering development, he has played an important role in

advancing NASA's mission, including work supporting the Space Launch System for the Artemis program.

Randy helped repurpose the Space Shuttle Main Engines, known as RS-25 engines, to power the first four Space Launch System missions — an effort central to NASA's return to deep-space exploration. In recognition of his contributions, he received the NASA Exceptional Engineering Achievement Medal in 2018. The honor recognizes engineering achievements that significantly advance the agency's mission.

He also remains connected to the Herff College of Engineering as a member of the Mechanical Engineering Advisory Board.

Reflecting on his time at the University of Memphis, Randy credits Herff with providing a strong technical foundation and the depth of knowledge needed to excel in specialized areas. Through coursework, research and close faculty mentorship, he developed a disciplined, analytical approach to solving complex engineering problems — skills that have remained essential throughout his career.

"The program gave me a solid foundation and the ability to approach problems — even outside my expertise — with

confidence," Randy said.

He also highlights the lasting influence of Dr. John Hochstein, who guided his undergraduate and graduate research in microgravity propellant systems. That one-on-one mentorship helped shape Randy's technical expertise and reinforced the importance of dedication and hard work.

A former president of the American Institute of Aeronautics and Astronautics student chapter, Randy emphasizes the value of engagement beyond the classroom. His experience as a nontraditional student, Marine Corps veteran and working professional underscored the importance of discipline, persistence and strong support systems.

"Engage with your classmates, professors and organizations, and absorb everything you can," he said. "Don't be afraid to ask questions or take on extra challenges."

Randy also notes that strong communication skills are as important as technical ability in engineering.

"Clear and consistent communication is often the key to solving complex problems," he said.

Looking back, Randy says his investment in a Herff education has continued to pay dividends throughout his career.

"The time, effort and resources I invested at Herff have paid back many times over."

HERFF COLLEGE OF ENGINEERING

Alumni Network

8,641

Herff engineering alumni around the world

A growing network of engineers leading in industry, research and community.



Sai Nikhil Vodapally (PhD '25) is a senior engineer at Dominion Energy in Glen Allen, Virginia. The company provides electric service to more than 3.6 million customers across Virginia, North Carolina and South Carolina, as well as natural gas service in South Carolina.

Sai enrolled at the University of Memphis in August 2021 to pursue his doctoral degree in electrical and electronics engineering. He completed the program in 2025 after serving for nearly four years as a graduate assistant and

contributing to teaching and research initiatives.

In recognition of his academic excellence and leadership, Sai received the Outstanding Graduate Student Award in Electrical and Computer Engineering during the University of Memphis President's Leadership Awards and Honors Assembly. He also co-authored five scholarly publications with Dr. Mohd Hasan Ali.

Sai credits his faculty mentorship and professional experiences with helping him grow as an engineer.

"I am grateful to Dr. Mohd Hasan Ali for his guidance and support throughout my doctoral studies and for the opportunity to grow through my work at Dominion Energy," Sai said. "I am thankful for everyone who has been part of this journey."

His accomplishments reflect a strong foundation in research, industry engagement and professional growth as he continues building his career in the energy sector.



Eleanor Waldron ('25) earned a Bachelor of Science in Electrical Engineering from the University of Memphis in May 2025. She also was named the Outstanding Senior Student in Electrical Engineering.

In August 2025, Eleanor earned her engineer intern certification from the Tennessee Board of Architectural and

Engineering Examiners. She now works as a graduate engineer at Fisher Arnold, where she conducts arc flash studies and power system analyses using SKM Power Tools.

Her responsibilities include short-circuit evaluations, relay testing and programming Schweitzer Engineering Laboratories real-time automation controller systems. Her work helps support the safety and reliability of electrical systems.

Before joining Fisher Arnold, Eleanor gained industry experience through several internships. At the Tennessee Valley Authority, she supported outage planning and worked with low- and medium-voltage systems. She also completed an internship with Nucor Steel Arkansas focused on electrical power maintenance.

As a student, Eleanor demonstrated leadership across the University and in the community. She served as an undergraduate coordinator and STEM ambassador for the West Tennessee STEM Hub, as well as an engineering ambassador and undergraduate research assistant. She also worked as an engineering problem-solving student guide.

Eleanor's academic honors included the ITS Tennessee Student Scholarship, the Leadership Scholarship Award, recognition on the dean's list and designation as a Herff Merit Scholar.

Through four internships and other hands-on academic experiences, Eleanor developed a strong interest in power systems. That interest continues to guide her career in areas such as substation design, supervisory control and data acquisition systems and relay maintenance.

Preparing students to turn knowledge, experience
and opportunity into meaningful careers and
lasting success.

MEMPHIS STUDENT SUCCESS

HERFF COLLEGE OF ENGINEERING

Undergraduate Enrollment

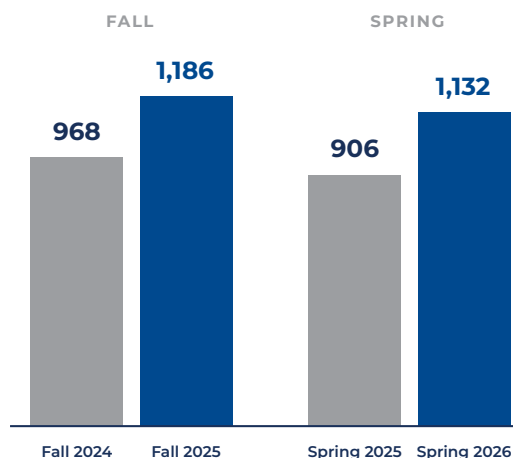
+22.5%

fall enrollment growth, 2024 to 2025

+24.9%

spring enrollment growth, 2025 to 2026

Herff added more than 200 undergraduate students in each term year over year.



Source: Engineering Student Services

HERFF COLLEGE OF ENGINEERING

Graduate Enrollment

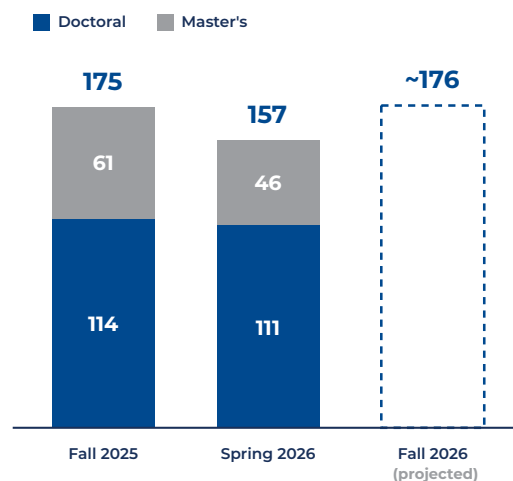
175

graduate students enrolled in Fall 2025

28

advanced degrees awarded in May 2026

This spring's graduating class included 11 doctoral and 17 master's-level students.



Source: Engineering Graduate Studies

HERFF COLLEGE OF ENGINEERING

Degrees Awarded

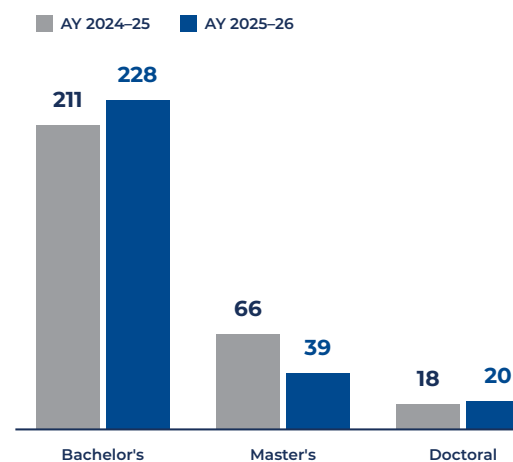
291

degrees awarded in AY 2025-26

+8.1%

growth in bachelor's degrees year over year

Includes 228 bachelor's, 39 master's and 20 doctoral degrees, plus three graduate certificates.



Source: UofM Office of Institutional Research

From Classroom to Career

Herff graduates don't just enter the workforce—they enter it with experience.

Career preparation at the Herff College of Engineering begins well before graduation. Through paid internships, cooperative education, hands-on learning and industry connections, students gain practical experience while building the skills, résumés and professional networks needed to enter the workforce with confidence.

With support from college and University career services, students also develop key career-readiness skills, explore career pathways and connect their degrees to workforce opportunities. Many employer partners provide on-site training with the goal of hiring Herff students after graduation.

TOP 10

among U.S. universities for
successful internship programs

— U.S. News & World Report

Herff's paid Co-op and Internship Program
puts students in real engineering roles with
industry partners before they graduate.

Major Industry Connections

Healthcare and Life Sciences

St. Jude Children's Research Hospital • Smith & Nephew • Medtronic • Stryker • Abbott • Charles River Laboratories • Methodist Le Bonheur Healthcare • MicroPort Orthopedics

Manufacturing and Advanced Industry

ABB • Cummins • Eaton • Parker Hannifin • TK Elevator • International Paper • Barnhart Crane & Rigging • Nucor • Flex • Hyosung HICO • National Guard Products • Trane • Sonoco • Ring Technologies

Technology and Computing

Apple • Amazon • Intel • Hewlett Packard • AT&T • Microsoft • Google • Supermicro • Deloitte

Transportation and Logistics

FedEx • FedEx Services • FedEx Express • Logistical Systems Inc. • AutoZone

Engineering, Infrastructure and Government

MLGW • U.S. Army Corps of Engineers • State of Tennessee • City of Memphis • A2H • Kimley-Horn • Fisher Arnold • Smith Seckman Reid • U.S. Navy • ARDOT • TDOT • Raytheon • Lockheed Martin • Turner • Yates • Flintco • Kroger • TVA • Y12

Herff Career Outcomes at a Glance

\$93K

Average Salary

69%

Employed in Tennessee

67%

Employed in Metro Memphis

Top Employers

Herff's current career data identifies these organizations among its top five employers:

Smith & Nephew

MLGW

Medtronic

FedEx Services

FedEx



Roberto W. Young family portrait located beside the Roberto W. Young and Family Terrace in the Edwards Research and Innovation Center.

DONOR SPOTLIGHT

Creating opportunity.

Building a legacy.

Roberto Young (BSEE '02, BSCE '03) has built a career defined by ambitious thinking, entrepreneurial leadership and measurable results. Over more than two decades, he has held transformative roles with The Boeing Company, Morgan Stanley and NCR and founded One Touch Real Estate Management. His work has generated more than \$250 million in revenue through technology and financial solutions, including landmark nine-figure and multi-eight-figure deals. In recognition of his lifelong excellence in engineering and business leadership, Young was inducted into the inaugural Herff College of Engineering Hall of Fame in 2026.

A University of Memphis alumnus with bachelor's degrees in electrical engineering and computer engineering, Young has remained committed to creating opportunities for those who follow him. The Roberto W. Young, Sr., Family Scholarship Fund supports underrepresented undergraduate students in electrical or computer engineering who demonstrate financial need, with preference given to students involved in engineering organizations and community service.

His generosity is also reflected in the Roberto W. Young and Family Terrace in the Edwards Research and Innovation Center. The outdoor space gives Herff students a place to study, connect with classmates and step away from their work to recharge. Through his philanthropy, Young is creating both immediate opportunities for students and a lasting legacy within the college that helped prepare him for success.

(pictured left) Dr. Okenwa Okoli, Herff College of Engineering dean, inducts Roberto W. Young (left) into the Herff Hall of Fame.



Named Scholarships

- » Afsar Shakeel Memorial Scholarship
- » Allen & Hoshall, Inc. Scholarship
- » Asma Imtiaz Scholarship
- » Associated General Contractors - West Tennessee Branch Scholarship Fund
- » Ballard-Wallace Scholarship
- » Bob Stein - Class of 1969 - Civil Engineering Scholarship
- » Bond-Haggard Endowed Scholarship
- » Calvin M Street Memorial Scholarship
- » Clarence & Mae Weiss Engineering Scholarship
- » Clark Family Engineering Excellence Scholarship Fund
- » Clinton Douglas Watts Scholarship
- » David Bond-Haggard Scholarship
- » Dewey Columbus (D.C.) Benson Memorial Scholarship
- » Don G Farley Memorial Scholarship
- » Dr John D Ray Memorial Scholarship and Fellowship
- » Dr. Rick A Smith
- » EECE Department Faculty & Alumni Scholarship
- » Engineering Success Scholarship
- » Engineers' Club Proutt Memorial Scholarship
- » Flintco Foundation Scholarship
- » Frances 'Marie' Dean Endowment
- » Garrison-Alexander Completion Scholarship
- » George D and Carol C Barnes Scholarship in Civil Engineering
- » H. Herff Engineering
- » Herff College of Engineering Merit Scholarship Fund
- » Hoyt B Wooten Scholarship
- » Imtiaz Shakeel Memorial Scholarship
- » Israel and Alisa Kamin Memorial Scholarship
- » James B Ellers Scholarship
- » James T. & Valeria B Robertson Foundation Scholarship



- » Johney & Emma Green Memorial Scholarship
- » Leon Cash
- » Melanie James Endowed Scholarship
- » Mike & Marta Foster Engineering Scholarship
- » Paul Y Isbell Memorial Scholarship II
- » Raymond John & Myrlie Fenner Coltharp Scholarship Fund
- » Resource Industries of Alabama - Mark W Gregory Scholarship
- » Richard E. Whitmore Memorial Scholarship
- » Robert A Beesley Memorial Scholarship in Civil Engineering
- » Robert Allen Curtis Engineering Scholarship
- » Smith & Nephew Merit Scholarship Fund
- » Steven Slack Fellowship
- » The Bodine Company Scholarship
- » The Roberto W. Young, Sr., Family Scholarship Fund
- » The Weston Terry Brooks Memorial Endowed Scholarship
- » William (Bill) C Miller, Jr. All-Phases Engineering Endowment
- » Wm B Rudner Engineering Scholarship
- » Zack and Ashley Daniel Scholarship Fund

HERFF COLLEGE OF ENGINEERING

Areas of Need

Four priorities where your gift moves Herff forward.

Engineering Student Success Scholarship

Competitive awards for high-ability incoming freshmen, based on evidence of financial need.

Jarvis Jeffrey Completion Scholarship

The extra financial support that helps senior-level students stay at Herff and graduate.

Herff Merit Scholarship

Positions the college to recruit the best and brightest high school students.

Dean's Leadership Course

Invest in experiences that develop the next generation of engineering leaders. Support for the Dean's Leadership Class provides students with opportunities to broaden their perspectives, build leadership skills and learn beyond the classroom.

Support any of these areas at memphis.edu/herff/giving.

New Faculty Spotlight: Turning Heat Into Healing

This past year, the Herff College of Engineering welcomed Dr. Hayden Carlton as an assistant professor in the Department of Biomedical Engineering. Carlton brings expertise in thermal therapies, an emerging area of biomedical research that uses carefully controlled heat to treat disease.

His research focuses on making these treatments safer, more precise and easier to translate into clinical care. Carlton and his team develop patient-specific simulations that allow researchers and clinicians to virtually plan thermal therapy procedures. They also design advanced temperature-control systems, new therapy devices and realistic tissue phantoms that help researchers verify and validate technologies before they are used in patients.

This combination of computer modeling, device development and experimental testing could help improve treatments such as magnetic particle hyperthermia and laser interstitial thermal therapy. Carlton's published



research also explores nanoparticle heating, temperature-feedback control and image-guided thermal simulations.

Carlton earned his PhD and master's degree in mechanical engineering from the University of Arkansas. He completed a postdoctoral fellowship at the Johns Hopkins School of Medicine in June 2025 before joining the University of Memphis. As of 2025, he had authored 25 journal articles, secured two patents and presented seven conference papers. He also had mentored or co-mentored more than a dozen students ranging from high school students to doctoral candidates.

New Faculty Spotlight: Leading Applied AI Into What's Next



The Polytechnic@UofM welcomed Dr. William Duffy as director of Applied AI in June 2026, bringing a distinctive perspective to one of the University of Memphis' newest areas of study. Duffy

joined the University in 2013 as an English professor and has built much of his recent work around artificial intelligence, rhetoric and the ways people communicate with emerging technologies.

His background in rhetoric is central to how he approaches applied AI. Rather than focusing solely on how artificial intelligence systems are built, Duffy emphasizes how people can use them effectively, critically and responsibly in their own fields. That perspective helped shape the University's

AI for All minor, for which he co-founded the program and developed the core course "Skills and Techniques for Applied AI." He also served on University AI task forces and is a faculty affiliate with the Institute for Intelligent Systems.

Duffy now is helping lead the Polytechnic@UofM's expansion into applied artificial intelligence as it prepares to offer an Applied AI concentration within the Bachelor of Applied Science program beginning in fall 2026. The program is designed to help students understand where AI can add value, where its limitations lie and how the technology can be applied to real-world problems across industries.

Through his leadership, Duffy is helping position applied AI as a practical, interdisciplinary skill set while preparing students to navigate a rapidly changing workplace with greater confidence and AI literacy.

Leading through *Discovery*

Building Bridges to Biomedical Futures

Professor expands pathways into biomedical research through education, mentorship and opportunity.

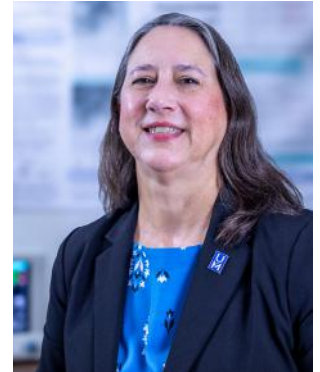
Dr. Amy DeJongh Curry has built her career around advancing biomedical engineering while helping students prepare to become the next generation of researchers and STEM professionals.

That commitment is reflected in the Bridges to Baccalaureate Research Training Program, a five-year initiative supported by a \$973,767 grant from the National Institutes of Health. Led by Curry, the partnership between the University of Memphis and Southwest Tennessee Community College helps community college students transition into bachelor's degree programs and prepare for biomedical research careers.

Participants receive supplemental instruction, peer mentoring and paid research experiences in UofM laboratories. The program is designed to strengthen students' academic preparation, confidence and sense of belonging while encouraging them to pursue doctoral study

and careers in the biomedical workforce.

Curry serves as associate dean of academic affairs and administration for the Herff College of Engineering and as an associate professor of biomedical engineering. Her research applies engineering principles to the study of cardiac and neural electrical activity, medical devices and neuromodulation.



Through the Bridges program, Curry is bringing together her experience in research, teaching and mentorship to create stronger pathways into biomedical science and expand opportunities for promising students.

A Smarter Approach to Energy Storage

Through patented technology, applied research and student mentorship, Electrical and Computer Engineering professor is helping shape the future of power and energy systems.



Dr. Mohd Hasan Ali's research focuses on making modern energy systems more reliable, efficient and secure. A professor in the Department of Electrical and Computer Engineering, he leads the University of Memphis Electric Power and Energy Systems Laboratory, where students contribute to research involving smart grids, renewable

energy, energy storage, electric vehicles and cybersecurity.

His latest innovation is a patented triple-function battery energy storage system designed for hybrid AC/DC microgrids. The technology uses a single control and structural design to stabilize a microgrid during faults, improve power quality when electrical loads change suddenly and reduce fluctuations caused by variations in

wind and solar energy.

By eliminating the need for several auxiliary control devices, the system is less expensive to manufacture, easier to implement and adaptable for use in existing hybrid microgrids. The streamlined approach could help utilities and other energy providers integrate renewable resources while maintaining dependable power.

The patent builds on Ali's extensive research in power systems, grid modernization, energy storage and cybersecurity. His work has attracted more than \$7.5 million in research funding and produced more than 250 publications and six patents. He received the 2026 Herff Outstanding Faculty Research Award and the 2025 University of Memphis Alumni Association Distinguished Research Award.

Through his research and leadership, Ali is developing practical technologies while preparing students to address the evolving energy needs of communities and industries.

Engineering Education Comes Together

The Herff College of Engineering welcomed nearly 160 educators, researchers and students from across the region for the 2026 American Society for Engineering Education Southeastern Conference. Through technical sessions, workshops, keynote presentations and networking opportunities, attendees exchanged ideas and built relationships focused on advancing engineering education. Herff students also showcased their work, with computer engineering seniors David Adaway and Gerrell Dabbs earning second and third place, respectively, in the undergraduate poster competition. By hosting the conference, Herff created a collaborative space where the engineering education community could connect, learn and help shape the future of the profession.



Mentorship That Moves Students Forward



Launched in spring 2026, the Herff Horizons Mentoring Program connects engineering students with industry professionals who can help them build confidence, strengthen career-readiness skills and expand their professional networks. The National Science Foundation-funded program's inaugural cohort included 19 students, most of whom were freshmen and sophomores, paired with mentors based on their majors or career interests. Monthly activities address communication, critical thinking, leadership, professionalism, teamwork and technology. Some participants have already secured interviews through connections developed with their mentors. As the program grows, its leaders hope Herff Horizons will become a model for mentoring initiatives across the University and beyond.

Engineering Memphis' Future

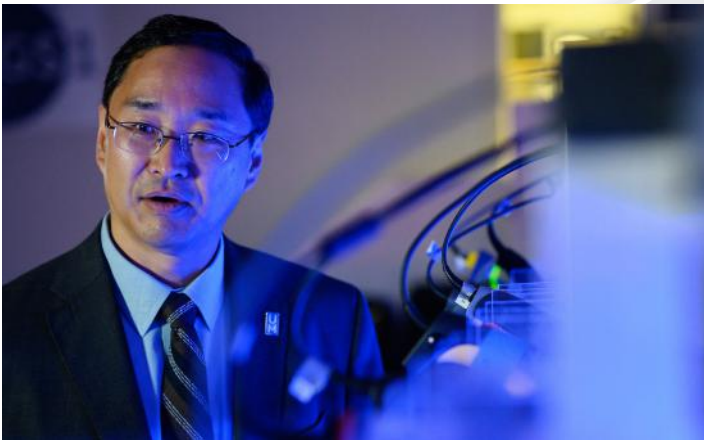
Memphis Mayor Paul Young visited the Herff College of Engineering for a campus tour and conversation with faculty and staff about engineering, technology and workforce development. Young also met with middle school students participating in the West Tennessee STEM Hub's Bridges to Engineering program, encouraging them to consider engineering as a path to meaningful careers. Discussions explored artificial intelligence, smart-city technologies, biomedical innovation and stronger connections between Herff, city government and local industry. The visit underscored the college's role in preparing talent, expanding opportunity and developing partnerships that can support Memphis' continued growth.



Research for the road ahead

Driving Commercial Vehicle Safety Forward

The U.S. Department of Transportation awarded Dr. Kevin Berisso, a faculty member in the Department of Engineering Technology, a \$1.23 million grant to develop the next generation of tire pressure monitoring systems for commercial vehicles.



The research will focus on providing more accurate, real-time information that helps fleet operators identify tire issues before they lead to breakdowns, safety hazards or costly repairs. Improved monitoring also could reduce fuel consumption, increase vehicle efficiency and support safer roadways.

Findings from the project are expected to inform transportation policy, encourage industry adoption and improve fleet operations nationwide. The work also will give Herff students hands-on research experience while preparing them to contribute to the transportation workforce.

Through this federally funded project, Berisso is developing practical solutions that address real-world safety, sustainability and performance challenges in commercial transportation.

Leading the Way to Safer Transportation

The University of Memphis Center for Transportation Innovation, Education and Research, or C-TIER, received a \$2 million award from the U.S. Department of Transportation to improve commercial motor vehicle safety in high-risk work zones.

Led by C-TIER Director Dr. Sabya Mishra, the PROTECT-CMV project will use artificial intelligence-powered speed enforcement, real-time driver behavior monitoring and predictive crash analytics along the Interstate 40 and Interstate 65 corridors.

“Commercial motor vehicle safety in work zones is one of the most pressing issues facing freight corridors today,” said Mishra, a professor in the Department of Civil, Construction and Environmental Engineering. “There is a clear need for proactive, data-driven and technology-enabled safety solutions.”

The research will help partner agencies better understand crash risks where heavy truck traffic and active construction overlap. Those partners include the Tennessee Department of Transportation, Tennessee Trucking Association, Tennessee Highway Safety Office, Modaxo Elovate, the University of Tennessee, Knoxville, Shelby

County Sheriff’s Office and the West Tennessee Regional Traffic Safety Task Force.

Dr. Subhash Jha of the Fogelman College of Business and Economics also is part of the research team.

Through the project, C-TIER will develop practical strategies to protect commercial drivers, roadway workers and the traveling public while supporting the safe movement of freight through Tennessee and the national transportation network. PROTECT-CMV will continue through Sept. 30, 2028.





THE UNIVERSITY OF
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Herff College of Engineering