

OSU RESEARCH STUDIES IF VEGETABLE OILS CAN BE TRANSFORMED INTO ADVANCED COATINGS

Could plant-based oils be used as building blocks for some of the world's most advanced materials? Researchers in the School of Mechanical and Aerospace Engineering are working to transform renewable vegetable oils into advanced protective coatings. This could reduce energy use, lower manufacturing costs and improve the sustainability of materials used in a range of industries.

READ MORE

SEPTEMBER 2026 CEAT HIGHLIGHTS



KENAWY EARNS NSF CAREER AWARD TO ADVANCE INFRASTRUCTURE RESILIENCE TO EXTREME EVENTS

Dr. Maha Kenawy, assistant professor for OSU's School of Civil and Environmental Engineering, is leading research to help communities better prepare for and recover from extreme natural disasters such as earthquakes and severe storms. Supported by the National Science Foundation's prestigious Faculty Early Career Development (CAREER) Award, Kenawy's work focuses on improving how engineers simulate and understand the risks that rare but devastating events pose to critical infrastructure systems such as buildings, bridges and power grids.

READ MORE



CIVE RESEARCH STUDIES IF 3D-PRINTED CONCRETE COULD REPAIR DAM INFRASTRUCTURE

Out of the roughly 5,000 dams in Oklahoma, an estimated 10% are considered high-hazard. This means if the dam were to fail, there could be a loss of life or significant property damage. These dams are regularly inspected, but the critical nature of dams and their aging infrastructure has inspired engineers to explore alternatives. Researchers in the School of Civil and Environmental Engineering are undertaking a project to explore the viability of 3D-printed concrete dams

READ MORE



MAE RESEARCH EXPLORES HOW SURFACE GEOMETRY INFLUENCES VORTEX FLOWS

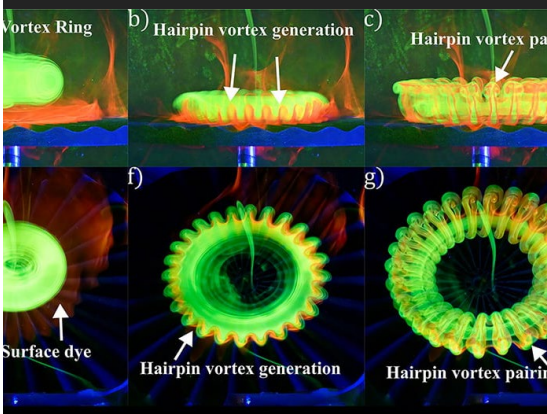
Vortices are a fundamental feature of fluid motion and appear across a wide range of natural and engineered systems. They influence how fluids mix, how heat and momentum are transported, and how aerodynamic and hydrodynamic forces are generated. Dr. Chitrarth Prasad, assistant professor in the School of Mechanical and Aerospace Engineering, is collaborating with researchers at Auburn University on an NSF project to study how geometry influences the vortex flows, especially with surfaces containing waves, ridges and corrugations.

READ MORE

OSU RESEARCHERS EXPLORE NANOBUBBLE TECHNOLOGY TO HELP CURB SPREAD OF ANTIBIOTIC RESISTANCE FROM AGRICULTURAL WASTEWATER

Every time antibiotics are used to keep livestock healthy, traces of those medications, along with the genetic material that allows bacteria to resist them, can remain in farm wastewater. If left untreated, those contaminants can move beyond the farm, contributing to antimicrobial resistance, one of the world's fastest-growing public health challenges. In the Department of Biosystems and Agricultural Engineering, Dr. Kiranmayi Mangalgiri and her team are evaluating the effectiveness of ozone nanobubble technology and creating scientifically backed guidelines for use. The project could help reduce the spread of antibiotic-resistant bacteria while improving wastewater treatment practices for livestock producers.

READ MORE





OSU FIRE SERVICE TRAINING BRINGS ADVANCED SWIFTWATER TRAINING TO OKC

OSU Fire Service Training brought first responders from across the country to Oklahoma City on Aug. 24-28 for the 2026 Swiftwater Conference and Championship Games at RIVERSPORT's Whitewater Center. The five-day event gave firefighters, law enforcement officers, emergency medical personnel, urban search and rescue teams and military personnel an opportunity to sharpen the skills needed to respond to some of the most dangerous and unpredictable emergencies they face.

READ MORE



MCALEAVY NAMED USA COUNTRY COORDINATOR FOR INTERNATIONAL CONSORTIUM FOR SOCIETAL RESILIENCE

Fire service training, emergency management and public safety policy have been shaped by CEAT, with impacts reaching communities across around the world. From preparing firefighters to respond more safely and effectively to helping emergency managers strengthen disaster planning and community resilience, CEAT's research and expertise have influenced policies and practices that protect both responders and the public

READ MORE

OSU RESEARCHERS WORK TO IMPROVE SPACECRAFT SPATIAL AWARENESS AND SAFETY

The environment is similar, whether it is a car on the highway or a satellite in low Earth orbit. In both cases, spatial awareness is key, but the challenge is far greater for spacecraft. Objects ranging from 1 mm to 10 cm can travel at speeds close to Mach 40, creating a hazardous microscopic projectile for satellites that must first be detected before being avoided. Research in the School of Mechanical and Aerospace Engineering is looking to improve this aspect of space flight.

READ MORE





CEAT WELCOMES 2026 W.W. ALLEN SCHOLARS

CEAT has named Erik Carson and Eleanor Miller as the 2026 W.W. Allen Scholars and Ralph Stokes as the 2026 W.W. Allen Boys & Girls Club Scholar. The W.W. Allen Scholars Program invests in exceptional engineering students who demonstrate academic excellence, leadership and a commitment to making a difference in their communities. Made possible through the vision and generosity of W. Wayne Allen, the program provides scholars with financial support, professional and leadership development, enrichment opportunities and experiences designed to broaden their global perspectives

READ MORE



OSU HITS RECORD FULL-TIME AND ONLINE ENROLLMENT

OSU welcomed 37,411 students across the university system this fall, thanks to all-time highs in full-time student, online, Native American enrollment and the university's strongest Oklahoma resident enrollment in over four decades. As students return to the system's five campuses statewide for another academic year, OSU has reached a record of 23,233 full-time students, with online enrollment climbing to a record 3,289 students. In-state enrollment stands at 17,999, its highest level since 1984, underscoring OSU's commitment to serving students across all 77 counties.

READ MORE



CIVE PROGRAM GIVES UNDERGRADUATES A CHANCE TO LEAD WATER RESEARCH

For many undergraduate students, the idea of conducting their own research can seem out of reach.

Some are unsure where to begin. Others hesitate to approach faculty about joining a research team. The Bullen Research Experiences for Undergraduates program led by Drs. Mary Foltz and Jaime Schussler is helping to change that by providing students with funding and mentorship to pursue research focused on water conservation and water quality. The program supports research that aligns with the fund's mission to encourage water conservation and water quality research in CEAT.

READ MORE



SAVING HEAT FOR A FROSTY DAY: OSU-AAON RESEARCH RETHINKS HEAT-PUMP DEFROST

Researchers are working with AAON Inc. to rethink defrost. Led by Dr. Ardeshir Moftakhari, an assistant professor in the School of Mechanical and Aerospace Engineering, the team is asking a simple question: What if a heat pump could save some heat while it is operating normally in the heating cycle, then use that stored energy in the defrost cycle to remove the frost from the outdoor unit without indoor coil cooling?

READ MORE



FORBES NAMES OSU IN 'BEST IN STATE EMPLOYER' RANKINGS

Forbes' eighth annual Best In-State Employers was recently released, naming OSU-Stillwater as a top 20 employer in Oklahoma. Among Oklahoma employers, OSU ranked No. 11. The recognition places the university among the highest-ranked employers statewide and highlights the university's continued focus on fostering a positive workplace culture, employee development and a mission-driven work environment.

READ MORE

FEMP STUDENTS, FACULTY PRESENT RESEARCH TO NATIONAL AUDIENCE AT CONFERENCE

From presenting research on artificial intelligence in emergency management to wildlife resilience and disaster recovery, OSU's Fire and Emergency Management Administration Program showcased its research on some of the field's most pressing challenges during the 51st annual Natural Hazards Research and Applications Workshop on July 14-17, with faculty and staff showing their work through presentations to a national audience of their peers in the industry.

READ MORE





ALUMNI SPOTLIGHT - DAN RIPLEY

Not every life-saving decision begins in the middle of a disaster. Long before Capt. Dan Ripley helped lead response efforts following hurricanes, tornadoes and floods across the United States, he learned leadership principles and technical expertise that would guide those moments as a student in CEAT's Fire Protection & Safety Engineering Technology program.

READ MORE