

January 2024

In the January issue of OU Engineer, we highlight student research and service, emphasizing our commitment to meaningful partnerships and community engagement.

Student News

Sooners Without Borders Assist with Habitat Project

In early January, six students from Sooners Without Borders headed to Des Moines, Iowa, teaming up with Habitat for Humanity. Their goal: construct an accessibility ramp for a local family. Their mission was part of Habitat's Collegiate Challenge program, providing year-round volunteer opportunities for college students. [Learn more.](#)



OU Engineering Students Master 3D-Printed Leg for Farmer's Fowl

OU Engineering students are addressing real-world challenges with partners like the Oklahoma City Zoo and City of Norman, Oklahoma. One recent project involved crafting a 3D-printed prosthetic leg for a local farmer's goose. All prosthetics were 3D printed, showcasing the students' skill in modeling and materials, with some using TPU filament for flexibility and durability. The project was part of the "Pathways to Engineering Thinking" course. [Learn more.](#)



Goose Prosthetic Prototype Design

OU Engineering Tackles Stormwater Runoff Issues

Ideal Homes & Neighborhoods is collaborating with OU Engineering for a study funded by the Oklahoma Department of Transportation, examining sediment control barriers in Norman, Oklahoma's Flint Hills neighborhood. The research, involving Nathan Wright, a graduate research assistant in the School of Civil Engineering and Environmental Science, seeks to support engineers, developers and municipalities in selecting effective measures to mitigate sediment and nutrient runoff from construction sites. [Read more.](#)





OU Engineering Engages Rural High Schoolers in STEM

OU Engineering and OU Health Sciences Center researchers recently collaborated for STEM Day, engaging 150 high school students at Caddo-Kiowa Technology Center. Led by Associate Professor Stefan Wilhelm, Stephenson School of Biomedical Engineering, the effort is funded by his National Science Foundation CAREER award and includes [BE4NANO](#), an outreach program focusing on high school juniors, including Kiowa and Wichita tribe members in rural southwest Oklahoma. The BE4NANO initiative has served over 430 high school students since 2019.

OU Engineering Hosts Science Olympiad

OU Engineering recently hosted [Science Olympiad](#), attracting 35 teams and over 350 students from middle and high schools in Oklahoma and Texas. The event, led by Associate Professor Chris Dalton from the School of Aerospace and Mechanical Engineering, featured science, engineering and technology competitions, including tests, experiments and device-building challenges.



OU Engineering Presents Dissertation Excellence Awards

Six OU Engineering students have been awarded the Fall 2023 Engineering Dissertation Award, an award to support doctoral candidates in the final stages of their studies. Their research represents diverse fields of study, ranging from data science and ultrawideband antenna solutions to advances in polymer chemical recycling and stimuli-responsive porous membranes. [Learn more.](#)



Alexandra Beattie



Syed Jehangir



Ana Jerdy



Lateef Jolaoso



Younes Saadatgharehbagh



Vinit Sheth

Faculty Research News

Gain insights into the research endeavors of OU Engineering faculty members by exploring the links attached to their names below.

[Christopher Billings](#), School of Aerospace and Mechanical Engineering, recently discussed the new Sooner Advanced Manufacturing Lab with KWTV-TV. The lab enables the 3D printing of parts and tools for Tinker Air Force Base.

[John Clegg](#), Stephenson School of Biomedical Engineering, contributed to a study published in Science Translational Medicine. The study describes the researchers' development of a technology to improve MRI imaging after traumatic brain injury.

[David Ebert](#), School of Electrical and Computer Engineering, is serving as the principal investigator for "The Intensifying Translational Research in Oklahoma" project that will accelerate the translation of research findings into processes and products for societal benefit. OU is one of 18 U.S. academic institutions to receive the first-ever Accelerating Research Translation award from the NSF.

[Chongle Pan](#), School of Computer Science, was featured in a highlight article by the U.S. Department of Energy. His research lays the foundation for enhancing scientists' comprehension of how environmental changes impact crucial microbial interactions in chemical reactions.

[Shivakumar Raman](#), professor and director of the School of Industrial and Systems Engineering, was featured on the January cover of the Institute of Industrial and Systems Engineers ISE Magazine.

[Thirumalai "Venky" Venkatesan](#), School of Electrical and Computer Engineering, and [Jizhong Zhou](#), Schools of Civil Engineering and Environmental Science and Computer Science, have both hit a research milestone -- achieving an h-index of 100.

[Bin Wang](#), School of Sustainable Chemical, Biological and Materials Engineering, is a key member of a team led by Lawrence Livermore National Laboratory. The multi-institutional initiative, IFE STARFIRE, aims to accelerate inertial fusion energy science and technology and is one of three hubs funded by the U.S. Department of Energy.

History Pages

1960

In 1960, there were only 18 members of the faculty in the OU College of Engineering with earned doctorates. Most of these were in chemical engineering. By the end of the decade, there were 68 members of the faculty with doctoral degrees.

Source: OU College of Engineering: A 70-Year History. By Tom J. Love Jr., George Lynn Cross Professor Emeritus, OU School of Aerospace and Mechanical Engineering.

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