Research News at Penn State University

by Shakshe Gupta

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Shakshe Gupta currently serves on the Research and News Committee for the Penn State Libraries’ Magazine. Researching and reporting on current events excites her, and her passion for effective communication has made her a fantastic member of the PSULM.

“Forty graduate students honored with prestigious University awards”

Link to PSU News Article

Summary: Penn State honors 40 graduate students for exceptional achievements in academia, research, teaching, and outreach. Recipients, like Ana V. Leon-Apodaca and Olanrewaju Shittu, demonstrate outstanding dedication to advancing science, fostering inclusivity, and addressing global challenges in agriculture.

“Amanda Mohamed selected as Liberal Arts college marshal for spring commencement”

Link to PSU News Article

Summary: Penn State honors 40 graduate students for exceptional achievements in academia, research, teaching, and outreach. Recipients, like Ana V. Leon-Apodaca and Olanrewaju Shittu, demonstrate outstanding dedication to advancing science, fostering inclusivity, and addressing global challenges in agriculture.

“Better Blocker: New bio-absorbable medical foam headed to market”

Link to PSU News Article

Summary: Jeffrey Catchmark, an associate professor at Penn State’s College of Agricultural Sciences, is developing a patent-pending bio-absorbable medical foam for wound care. This foam, soft and resilient, can absorb blood and body fluids, conform to wound shapes, and promote healing without sticking to tissue. With promising results, it’s poised to revolutionize trauma care in surgical, military, and veterinary settings.
“Penn State rises 10 places in 2024 QS World University Rankings”

Summary: Penn State has risen to No. 83 globally in the 2024 QS World University Rankings, climbing 10 spots from the previous year. The university also ranks No. 24 in the U.S. and excels in new metrics like international research network, sustainability, and employment outcomes. This achievement underscores Penn State’s academic excellence, global impact, and commitment to innovation and sustainability.

“Six Penn State faculty members receive 2024 Faculty Scholar Medals”

Summary: Six Penn State faculty members received the 2024 Faculty Scholar Medals for Outstanding Achievement. Bonnie Collura’s art fosters empathy; Shaun Gabbidon’s research addresses race and justice; Enrique Gomez advances water purification methods; Katsuhiro Murakami studies RNA polymerases; Mikhail Rechtsman pioneers topological photonics; and Tak-Sing Wong innovates bio-inspired materials. Their work spans art, criminology, engineering, biology, physics, and materials science, contributing to diverse fields and societal challenges.

“Divinsky named recipient of Teaching and Learning with Technology Impact Award”

Summary: Anna Divinsky, assistant teaching professor at Penn State, wins the 2024 Teaching and Learning with Technology Impact Award for her innovative use of technology in education, notably through a pioneering MOOC.

“Toraman receives recognition from the American Institute of Chemical Engineers”

Summary: Hilal Ezgi Toraman, an assistant professor at Penn State, was honored as a “Pioneer of Catalysis and Reaction Engineering” by AIChE. Her work focuses on sustainable chemical processes, and she aims to inspire diversity in the field. Toraman previously received recognition as one of C&EN’s “Talented 12” researchers.

“Fayette students awarded Erickson Discovery Grant for undergraduate research”

Summary: Lucas Beddick and Tyler Duda, students at Penn State Fayette, received the 2024 Erickson Discovery Grant, providing $3,500 each for undergraduate research. Beddick will explore self-compassion’s link to prosocial behavior, while Duda investigates magnetic monopoles’ interactions, aiming to contribute to scientific understanding in their respective fields.
“Eight Penn State alumni to receive Distinguished Alumni Awards in 2024”  
[Link to PSU News Article]

**Summary:** Eight distinguished Penn State alumni have been selected by the Board of Trustees to receive the prestigious Distinguished Alumni Award in 2024. Honorees include leaders in various fields such as business, healthcare, arts, and sports journalism, reflecting the university’s commitment to excellence and community service.

“$4M grant funds project to make robotic prostheses more like biological limbs”  
[Link to PSU News Article]

**Summary:** Penn State researchers, led by Xiaogang Hu, receive a $4 million NSF grant to enhance robotic prostheses for amputees. They aim to improve neural and cognitive processes in human-robot interactions. The project involves sensory feedback research, device development, and training systems to make prosthetics more intuitive and functional.

“Stuckeman architecture professor awarded United States Artists Fellowship”  
[Link to PSU News Article]

**Summary:** DK Osseo-Asare, a Penn State professor of architecture and engineering design, earns a 2024 United States Artists Fellowship for his sustainable structure work. Co-founder of Low Design Office, he explores sustainability, technology, and geopolitics. His Agbogbloshie Makerspace Platform fosters maker ecosystems in Africa. Osseo-Asare’s innovative structures merge biology and engineering.

“Penn State undergraduate team advances to programming national championship”  
[Link to PSU News Article]

**Summary:** Penn State undergraduates Chris Kopp, Vladyslav Myskiv, and Ben Zydney placed fourth in the ICPC regional, advancing to the North American Championship. Coached by Antonio Blanca, it marks the university’s first advancement to this level. The competition, promoting problem-solving skills, will feature about 20 teams in the World Finals.

“Nuclear engineering faculty member Miaomiao Jin receives 2024 NSF CAREER Award”  
[Link to PSU News Article]

**Summary:** Miaomiao Jin, an assistant professor of nuclear engineering at Penn State, received a $550,000 NSF CAREER Award for her project on “Understanding the Synergistic Effects of Irradiation and Molten Salt Corrosion on NiCr Alloys.” Her research aims to enhance understanding of molten salt corrosion in advanced nuclear reactors, benefiting materials research. Undergraduate and graduate students will contribute, enriching their skills. Jin aims to foster collaboration and inclusivity while bridging research with real-world challenges.
“Electrical engineering faculty member Yunting Liu receives 2024 NSF CAREER Award”

Link to PSU News Article

Summary: Yunting Liu, an assistant professor of electrical engineering at Penn State, secured a $550,000 NSF CAREER Award for the project “Irregular Modulation: Harnessing the Hidden Potential of Pulse Width Modulation.” His research aims to revolutionize power electronics by introducing irregular modulation, benefiting renewable energy systems and fostering inclusivity in STEM education. Undergraduate and graduate students will actively contribute to research and learning experiences, enriching their skills and confidence in the field. Through this award, Liu aspires to become a leading expert, educator, and advocate for diversity in STEM.