



THE UNIVERSITY OF  
**MEMPHIS**

# RESEARCH + **INNOVATION**

NEWSLETTER



## U.S. Department of Transportation Award Supports Research on High-Risk Work Zones

Dr. Sabya Mishra secures \$2M in research funding for a commercial driving safety project meant to create safer work environments for commercial drivers and commercial driving vehicles.

[Read Full Story](#)



## University of Memphis Secures \$4 Million ED Grant to Research Learning

In partnership with the Educational Testing Service Research Institute and Georgia State University, this research initiative will explore innovative approaches to transforming how college students learn and demonstrate their knowledge.

[Read Full Story](#)



## **Memphis–Mississippi Applied AI Research (M2AIR) Program Funds Six Collaborative Projects**

University of Memphis and University of Mississippi strengthen regional AI innovation through joint research initiative with M2AIR.

[Read Full Story](#)



## UMRF Research Park Welcomes Corami Biotech and IAAIR to Expanding Innovation Ecosystem

New partnerships in cardiac biotechnology and applied AI strengthen the University's role as a hub for transformative research and global impact.

[Read Full Story](#)



## **Researchers Advance Early Detection of Orchard Pathogens to Protect West Tennessee Peach Production**

State-funded project aims to improve crop management, reduce costs and strengthen regional specialty agriculture.

[Read Full Story](#)



## **University of Memphis Named U.S. State Department Diplomacy Lab Partner**

New designation expands opportunities for faculty and students to engage in real-world global policy research at the University.

[Read Full Story](#)



## **Irena Lasiecka Receives Balakrishnan Award for Excellence in Mathematics of Systems**

Internationally recognized mathematician honored for groundbreaking contributions to control of partial differential equations.

[Read Full Story](#)

# RESEARCH CELEBRATION



## University of Memphis Honors Research Excellence at the 2026 Research Celebration

Faculty achievements in funding, innovation, collaboration and scholarly impact highlight the strength of the University's research enterprise.

[Read Full Story](#)



## **Coefficient Giving, DOE, HRSA, NIH, NSF, SAMHSA and the Donaghue Foundation**

Learn more about recently published funding opportunities and notices from various organizations.

[See Full List](#)



## Calendar of Events and Activities for Research and Innovation: April

Learn about upcoming events with Research and Innovation, UMRF Research Park and the FedEx Institute of Technology.

[See Full List](#)

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## Research Awards March

**Dr. John Sabatini** awarded \$1,031,184 by the U.S. Department of Education.

**Dr. Satish Kedia** awarded \$478,484 from the State of Tennessee.

**Dr. Xiaolei Huang** awarded \$214,917 by the National Science Foundation.

**Mary Tucker** awarded \$137,459 by the U.S. Department of Education.

**Dr. Lara Condon** awarded \$60,000 by the Bill and Melinda Gates Foundation.

**Dr. Nikki Wright** awarded \$49,916 by the Spencer Foundation.

**Dr. Andrew Tawfik** awarded \$18,000 by the University of Tennessee, Knoxville.

**Dr. Ranganathan Gopalakrishnan** awarded \$12,000 by the United States Army Research Laboratory.

**Dr. Francisco Muller Sanchez** awarded \$10,250 by the National Aeronautics and Space Administration.

**Dr. Leigh Boardman** awarded \$5,991 by the Tennessee Corn Promotion Board.

*\* Data reported on the 18 of each month. Awards finalized after the 18 will be reported the following month.*

[Full project and award details available here.](#)

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## Upcoming Events and Announcements



### FedEx Institute of Technology MEMSEC - DEFCON901 Reproducible Cybersecurity Labs with NixOS

Most Linux systems are configured through layers of manual changes, scattered config files and hope. NixOS takes a radically different approach: your entire Linux environment, every tool, every config, every service, declared in code, version-controlled and reproducible down to the bit.

This month, John Dorion gives us a practical introduction to building reproducible cybersecurity labs with Nix and NixOS. We'll cover how the Nix ecosystem works, from the package manager and language to flakes and declarative OS configuration and walk through building a custom images.

Beyond the fundamentals, we'll explore why this matters for security practitioners:

- Eliminating 'works on my machine' problems for CTFs, training and workshops

- Building custom images and containers preloaded with your exact cybersecurity toolkit or the perfect vulnerable environment
- Building development/hacking environments that activate on a directory change
- Learning about the state of the hacking ecosystem in Nix/NixOS and how to navigate fragmented documentation

This meetup is free, open to the public and we'll also enjoy Garibaldi's pizza.  
Join us!

**Friday, April 3 | 5-7 PM**  
**Innovation Classroom (225) | FedEx Institute of Technology**

**Register**



## FedEx Institute of Technology **Timber Talks: Mass Timber from Earth to Earth**

Timber Talks presents an opportunity to connect, collaborate and explore new possibilities in mass timber and sustainable construction.

Join us for a 1.5-day symposium exploring the future of mass timber — from forest management and fabrication to design, construction and end-of-life innovation. Connect with researchers, industry leaders and students as we reimagine Tennessee's hardwood sector and unlock new opportunities in sustainable building, workforce development and rural economic growth.

Join us!

**Monday, April 6 | 8 AM-6 PM and Tuesday, April 7 | 8 AM-NOON**

[Register](#)



University Libraries

## **Research Skills for Graduate Students Webinar: Mind the Gap with Writing and Communication Services**

Join Dr. Meredith Boulden, director of Writing and Communication Services at the University of Memphis, for an engaging webinar on identifying different types of research gaps and effective strategies for addressing them.

Register today to reserve your spot!

**Thursday, April 9 | NOON-1 PM**  
**Virtual Session via Microsoft Teams**

[Register](#)



FedEx Institute of Technology  
**901 AI & CERTAIN Welcomes**  
**Dr. Sudip Seal, Oak Ridge National Laboratory**

At the Intersection of AI and Science: The Role of DOE's State-of-the-Art  
High-Performance  
Computing Capabilities

The talk will highlight Oak Ridge National Laboratory (ORNL), its mission within the U.S. Department of Energy and a brief overview of its state-of-the-art computing capabilities. The critical role of computing — particularly high-performance computing — and the mathematical sciences in advancing innovation across DOE-relevant application areas will be discussed. The talk will conclude with a brief overview of the mechanisms through which ORNL engages in collaborative projects via strategic partnerships with academia and industry.

Join 901 AI and the Center for Emerging Technologies in Artificial Intelligence (CERTAIN) for this talk - register today!

**Friday, April 10 | 10:30 AM-1 PM (will include lunch)**  
**Fishbowl (203/205) | FedEx Institute of Technology**

[Register](#)



FedEx Institute of Technology  
**901 AI & CERTAIN Welcomes**  
**Dr. Sagar Samtani, Indiana University**

Artificial Intelligence (AI)-enabled  
Vulnerability Management

As the diversity of assets organizations bring onto networks continues to expand, so does their vulnerability landscape. Vulnerability assessment scanners have been a critical tool for helping security operations centers identify flaws in the systems on their networks.

However, each vulnerability scan can return thousands of results, which are difficult for security analysts or engineers to sift through to rank, prioritize and ultimately remediate. In this talk, Samtani will summarize his lab's research on developing Artificial Intelligence (AI)-enabled vulnerability management approaches based on machine learning, large language models and network science-based techniques. Sample illustrations of selected AI-enabled vulnerability management tasks on conventional IT assets and emerging open source software components from recent NSF-funded projects will also be presented.

Join 901 AI and the Center for Emerging Technologies in Artificial Intelligence (CERTAIN) for this talk - register today!

**Thursday, April 16 | 3-4:30 PM**  
**Methodist Presentation Theatre | FedEx Institute of Technology**

[Register](#)



FedEx Institute of Technology  
**Technology Serving Humanity Welcomes  
Dr. Sara Pritchard**

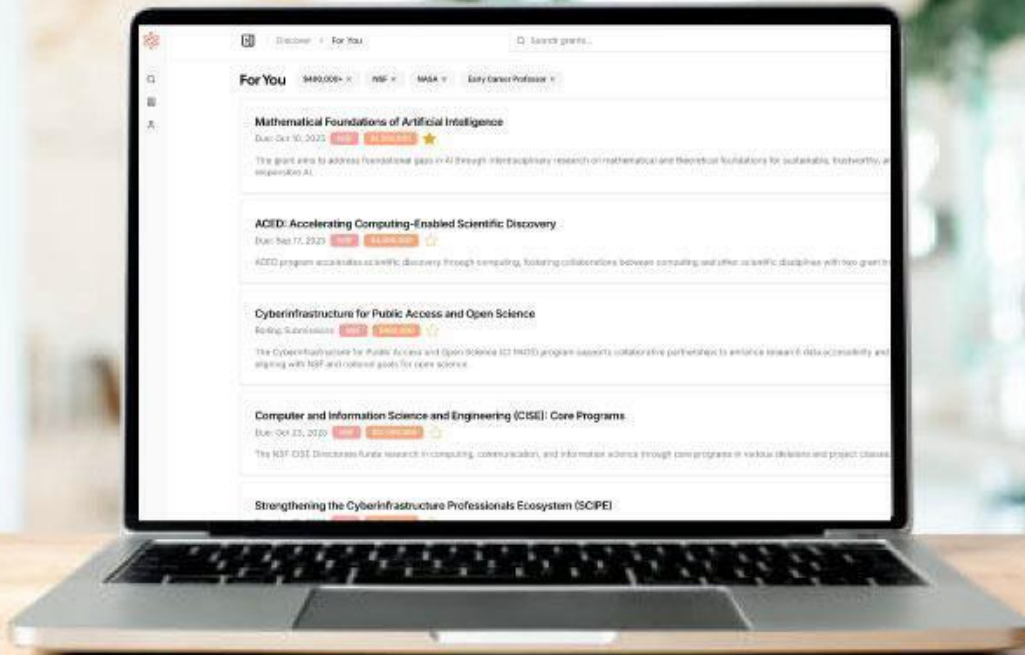
From Blue to Black Marble:  
What Nocturnal Remote Sensing Can (and Cannot) Tell Us about  
Artificial Light and Night on Earth

Satellite imagery of nocturnal Earth has circulated widely since 2012. However, recent maps based on Suomi satellite data build on longer histories dating back to the Cold War, the space race and observations of the planet from far above.

In this talk, based on her forthcoming book, *Transforming Night: The History and Science of Light Pollution*, Pritchard will trace the emergence of nocturnal remote sensing, which has offered unprecedented ways of looking at and understanding Earth in human history. She argues that satellite maps of the nighttime planet are at once images of artificial light at night, light pollution and light poverty. But they are also calls for light justice in the twenty-first century.

**Friday, April 17 | 11:30 AM-1 PM**  
**Methodist Presentation Theatre (103) | FedEx Institute of Technology**

[Register](#)



## Research and Innovation **Atom Grants AI-Enabled Proposal Management Workspace Demo**

Please Join Research Development and the Atom Grants development team for an overview and demonstration of the new AI supported proposal management workspace developed through a strategic design partnership. This added resource is now available to all University of Memphis faculty and staff through the University's Institutional license for Atom.

**Thursday, April 23 | 1-2 PM**  
**Virtual Meeting via Google Meet**

**Register**



FedEx Institute of Technology  
**dumb Hackathon hosted by BDPA Memphis**

BDPA Memphis presents an event where you can try new tools, build weird projects and learn by doing. No perfection required, beginners welcome.

Not every project needs to change the world in 48 hours. The dumb Hackathon is a low-pressure gateway into hackathons and maker events, designed for anyone who wants to experiment, learn and actually finish something, without worrying about polish, best practices or being "professional."

**What is the "dumb" Hackathon?**

This is your excuse to try that tool you've been curious about, experiment with hardware you've never touched or build that ridiculous idea you'd never pitch at a "serious" hackathon. Code an app. Prototype with Arduino. Build a physical game. Sketch wild ideas. Whatever you're curious about, there's space for it here.

Smart ideas are welcome; unconventional ideas are encouraged. The only goal: dream big, unblock your creativity, make something and don't be afraid to break things along the way.

Present your project at the end and stay for the raffle for a chance to win a useful prize!

**Friday, April 24 and Saturday, April 25 | See schedule for times**  
**FedEx Institute of Technology**

[Register](#)



## **CITI Program Training** Now available in "myMemphis" portal

The University of Memphis CITI Program training is now available in "myMemphis" portal. All researchers (including graduate and undergraduate students) will now have easy access to their CITI training. Once you click on the CITI training tile, it will take you straight to your current CITI training course.

If you have any questions, contact Research Compliance at [researchcompliance@memphis.edu](mailto:researchcompliance@memphis.edu).



**Research Study**

# Participation Opportunities

Research study participation opportunities should be posted to the main college/departmental website versus individual/PI links to appear in This Week.

- [Center for Information Assurance >](#)
- [Cognition, Language and Speech Lab \(CLaSLab\) >](#)
- [College of Health Sciences >](#)
- [Department of Psychology >](#)
- [Familiarity Study >](#)
- [Hearing Aid Research Laboratory >](#)
- [Pediatric Auditory Research Laboratory >](#)

If your department or college would like to have its research study participation opportunities listed, email [thisweek@memphis.edu](mailto:thisweek@memphis.edu).

[Contact This Week](#)

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## Quick Links

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[Research Compliance](#) | [Emerging Tech Training](#)

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