



A Tennessee Flagship Carnegie R1 Research Institution

# RESEARCH + INNOVATION

## NEWSLETTER



AI and Data Science Partnership in Training

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## Boosting Academic and Research Capabilities in AI

University of Memphis is making \$1M investment to enhance technology innovation ecosystem.

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## Unmanned Aerial Systems Research Investment

Drone research earns CAESER scientist \$3.4 Million from U.S. Army Research Office.

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## Groundwater Wells and Aquifer Management

Funding for MRM hydrogeologic studies to monitor, understand and detect contamination.

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**Honorary Membership to  
Professor Ali Fatemi**  
The University of Memphis, Memphis/USA

in appreciation and recognition of his outstanding contributions in the field of multiaxial fatigue and fracture and additionally to the scientific cooperation between USA and the Federal Republic of Germany in the field of materials research and testing.

10th International Conference on Material and Component Performance under Variable Amplitude Loading



## Professor Receives DVM Honorary Membership

Fatemi honored for his outstanding contributions in innovative research and international co-operation.

[Read Full Story](#)



## Intelligent Control Systems for Soft Artificial Muscles

NSF's AI Institute for Artificial and Natural Intelligence awarded Davoodi a grant for project.

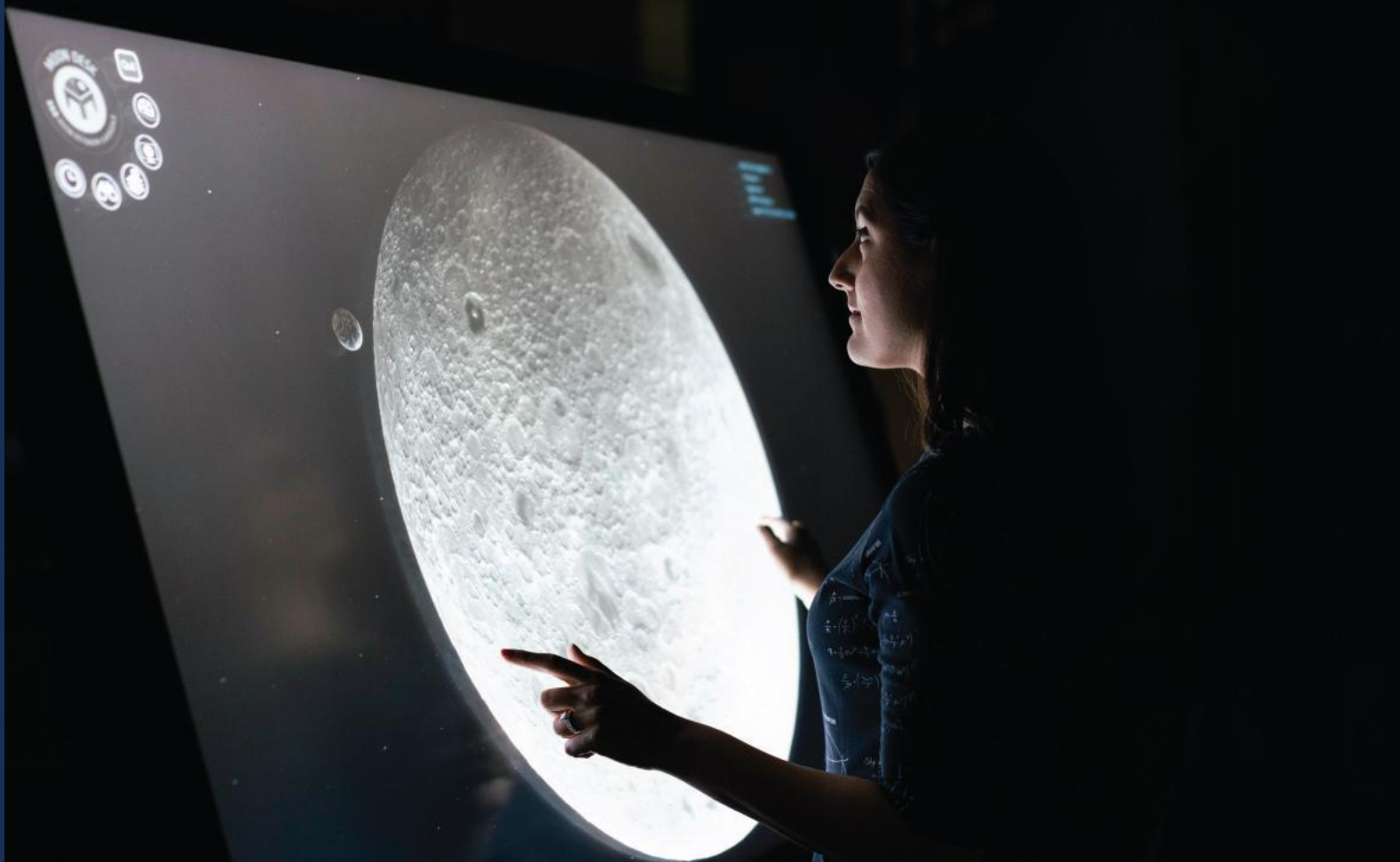
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## Consumers, Promotions in Retail and Research

Jha co-authors article for Harvard Business Review on precision discounts and effects on sales.

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## NSF and Underrepresented Communities

NSF breaking barriers in space careers by providing funding to improve diversity in the workforce.

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## Opportunities to Revitalize the Regional Ag Economy

Growing agricultural diversity, production & prosperity in the Mid-South Mississippi Delta.

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## Landslide Investigation in Tennessee River Gorge

Could a landslide have caused a prehistoric megaflood in the Tennessee River Gorge?

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## ACSM Awards Doctoral Student Research Grant

Biomechanics doctoral student will study in-field measures of Tibial Compressive Force.

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# SETCA



## UofM Posts Strong Performance at SETCA

Chemistry students won at poster sessions and one presented an oral talk during the 2024 annual meeting.

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## Memphis Collaborative Crisis Response Program

The Center for Community Research and Evaluation received \$225k from the Memphis Police Department.

[See Full List](#)



## Calendar of Events July 2024

Research Development, Research Enterprises, UMRF Research Park and FedEx Institute of Technology.

[See Full List](#)

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## Research Awards June 2024

**Dr. James Whelan** was awarded \$2,348,297 from the Tennessee Department of Mental Health and Substance Abuse Services.

**Dr. Laura Casey** awarded \$1,765,400 from Tennessee Department of Intellectual and Developmental Disabilities, with the U.S. Department of Education.

**Dr. Ashish Joshi** awarded \$1,043,560 from Shelby County Health Department with the Centers for Disease Control.

**Dr. Susan Neely-Barnes** awarded \$636,438 from the Health Resources and Services Administration.

**Dr. Ali Fatemi** awarded \$230,164 from Steel Founders' Society of America with the U.S. Department of Defense.

**Dr. Thomas Sutter** awarded \$227,304 from the University of Pennsylvania with the National Institutes of Health.

**Dr. Santosh Kumar** awarded \$113,267 from the National Institutes of Health.

**Dr. Susan Elswick** awarded \$100,000 from the Tennessee Department of Mental Health and Substance Abuse Services.

**Dr. Satish Kedia** awarded \$80,000 from Mending Hearts, Inc. with the Substance Abuse & Mental Health Services Administration.

**Dr. Chrisann Schiro-Geist** awarded \$78,000 from the Tennessee Department of Human Services.

**Dr. Maxime Paquette** awarded \$61,268 from New Balance, \$15,659 from Mettis Trainer and \$2,997 from the University of Massachusetts-Amherst.

**Dr. Nathan DeYonker** awarded \$57,534 from the University of Arizona with the National Science Foundation.

**Dr. Okenwa Okoli** awarded, \$39,600 from Tennessee State University with the National Science Foundation.

**Dr. Huigang Liang** awarded \$19,491 from The University of Texas at Austin with the National Institutes of Health.

**Dr. Melissa Marshall** awarded \$5,250 from Keep America Beautiful.

**Dr. James Adelman** awarded \$2,700 from Tennessee Ornithological Society.

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

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

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## Upcoming Events & Announcements



### AI Cybersecurity Conference Speaker Submissions Call for Speakers

The AI Cybersecurity 2024 Conference planning committee is seeking timely, topical and thought-provoking presentations/proposals for its inaugural conference. The conference is an opportunity to bring together cybersecurity practitioners to promote collaboration and highlight effective and innovative approaches where AI is

used to augment and enhance cybersecurity organizations and teams.

This year's theme, "How do you use AI?" highlights our efforts to bring practitioners together and learn from each other on how to utilize AI safely and responsibly. The event will take place on Aug. 22 at the FedEx Institute of Technology.

### Topics of Interest

- **AI and Threat Detection:** Identify and mitigate potential risks with unprecedented speed and accuracy. Our expert speakers will delve into the latest advancements in AI-powered threat detection techniques, showcasing real-world examples of how these technologies safeguard businesses across industries.
- **AI and Threat Response**  
Experience the cutting-edge AI-driven threat response strategies transforming the cybersecurity landscape. Gain invaluable insights from industry leaders as they share their experiences and best practices in leveraging AI to automate and optimize incident response processes, ensuring rapid and effective containment of cyber threats.
- **AI and Recovery**  
Explore the vital role of AI in streamlining disaster recovery and business continuity efforts in the face of evolving cyber threats. We will discuss how AI-powered tools and techniques are enabling organizations to minimize downtime, reduce data loss, and ensure swift recovery from cybersecurity incidents.
- **AI Governance**  
Engage in thought-provoking discussions on the critical importance of AI governance in the context of cybersecurity. As AI becomes increasingly integral to our cybersecurity strategies, it is crucial to establish robust governance frameworks that ensure these technologies' ethical, transparent, and accountable deployment, fostering trust and mitigating potential risks throughout our organizations.

[Proposal Submissions »](#)

**Deadline:** Friday, July 12 at 5 p.m. CDT. Submissions received after the relevant closing date will not be reviewed.

MORE INFORMATION



# 901 AI



## 901 AI Meetup

July 2024

**Guest Speaker:** Shahin Samiei, Associate Director of Research and Studies (MD2K)

**Title:** AI in Mobile Health (mHealth): Utility, privacy, ethics and implications for our health and well-being.

**Topic:** In this session, Samiei will share experiences with the National Institutes of Health (NIH)-funded mobile health (mHealth) Center of Excellence and Biotechnology Resource Center, headquartered at the University of Memphis. The precision medicine approach which helped to inspire this center-based research 10 years ago is being realized in the form of AI-based platforms that have entered the current cultural zeitgeist. Samiei will also share how AI-based approaches can inform health intervention delivery by highlighting experiences and results from their recent Mobile Open Observation of Daily Stressors (MOODS) study.

**July 18 | 4:30-5:30 PM**

**FedEx Institute of Technology | Methodist Presentation Theatre (103)**

[REGISTER](#)



## MicroCT Scanner Workshop and Presentation

We are excited to announce the installation of a new MicroCT scanner (uCT 100HE SCANCO) on campus at the University of Memphis. To help everyone get acquainted with this incredible tool, the manufacturer will be holding a one-day workshop followed by a presentation. The MicroCT scanner can be used for a variety of applications, including high-resolution 3D imaging of biological samples, additive manufacturing, materials science studies, and more.

If you are interested in using the machine for your research or projects or require more information about the machine and the workshop, contact Dr. Jazaei at [fjazaei@memphis.edu](mailto:fjazaei@memphis.edu). You can find more information about the equipment at [μCT 100HE](#).

### Workshop Schedule:

July 20

9:30-11:30 AM: Initial setups and tests

11:30 AM-1:30 PM: Lunch Break

1:30-3 PM: Image analyses and data transfer

### Presentation Schedule:

July 21

10-11:30 AM: SCANCO Presentation

### Workshop Address:

Integrated Microscopy Center

Life Sciences Bldg., Rm 101

3774 Walker Avenue

Memphis, TN 38152-0001

July 20-21

Integrated Microscopy Center | Life Sciences Bldg., Rm 101

FOR MORE INFORMATION



# PATENTS<sup>2</sup>PRODUCTS

DEEP SCIENCE ENTREPRENEUR POST-DOC FELLOWSHIPS

## Patents2Products Deep Science Entrepreneur Post-Doc Fellowships Now Hiring for the Third Cohort

The University of Memphis [FedEx Institute of Technology](#) and [Epicenter Memphis](#) are gearing up to launch the third cohort of the [Patents2Products Post-Doc program](#) this fall. This groundbreaking initiative seeks to hire post-doc fellows to transform patented intellectual property into thriving commercial startups. This program establishes funded positions for research entrepreneurs within the University, and P2P fellows gain access to research facilities, licensing rights and office space located either in the University of Memphis Research Park or Epicenter Memphis.

The next cohort will begin Sept. 2024. For more details on this exciting venture, contact [p2p@memphis.edu](mailto:p2p@memphis.edu) or submit your application today.

APPLY TODAY

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