



**PURDUE**  
UNIVERSITY®

School of Nuclear Engineering

Issue 16, May 2024



The logo consists of the word 'barn' in a large, white, sans-serif font. The letter 'a' is stylized to look like a barn with a gabled roof and a central door. The letters 'b' and 'r' are in a light yellow color, while 'n' is white. Below the word 'barn' is the text 'SCHOOL OF NUCLEAR ENGINEERING CHRONICLES' in a bold, black, sans-serif font.

**SCHOOL OF NUCLEAR ENGINEERING CHRONICLES**

Legend has it that the unit 'barn' was established in 1942 by physicists M.G. Holloway and C.P. Baker while they were having dinner at the Purdue Memorial Union. They came up with the name because  $10-24\text{cm}^2$  is "as big as a barn" for a nuclear reaction process. Professor Alex Sesonske (School Head, 1966-1973) taught in his class that the term came from the common Midwest expression, "someone was such a bad shot at hunting that they couldn't hit the broad side of a barn," implying that the probability of neutrons passing through nuclei to cause fission is so rare, their aim could be equated to that of bad hunters. Hope you enjoy the news. Boiler up!



## **MESSAGE FROM THE HEAD**

Greetings from the Purdue University School of Nuclear Engineering!

As we step into this new season, I'm thrilled to share exciting updates from our vibrant community. We take immense pride in celebrating the accomplishments of our students, faculty and staff, including the remarkable achievements of our distinguished 2024 graduates such as Tetyana Martin, the first graduate of the online Master of Nuclear Engineering. I want to express my deepest gratitude to our dedicated faculty, staff and students whose unwavering commitment continues to elevate the impact of our school.

Exciting developments await us, including Purdue's groundbreaking study on small modular reactors (SMRs) in collaboration with the Indiana Office of Energy Development, as well as our ongoing partnership with Duke Energy in the SMR Feasibility Study.

I invite you to stay connected with us through our website and social media channels for the latest updates on our initiatives.

Wishing you a great summer,

Hail Purdue and Boiler Up!

Seungjin Kim  
Capt. James F. McCarthy, Jr. and Cheryl E. McCarthy  
Head of the School of Nuclear Engineering  
Purdue University

Click [here](#) to visit the school website.

## **FEATURED STORIES**

**Congratulations to the 2024 Graduates!**

The School of Nuclear Engineering participated in Purdue's graduation ceremony held on Saturday, May 11th, 2024. 26 BSNE, 1 MNE, 9 MSNE and 3 PhD degrees were conferred.

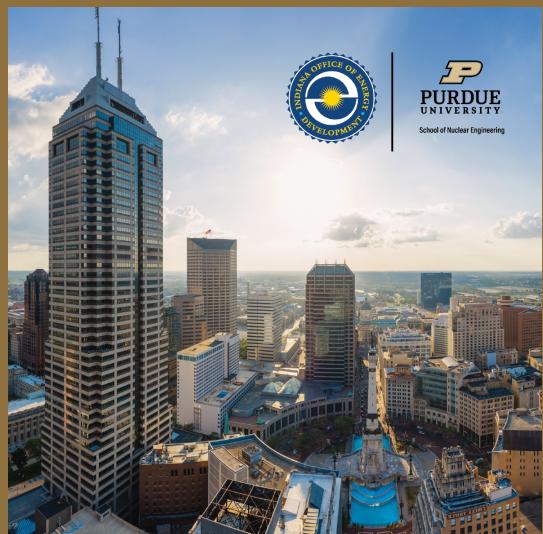
[Read more.](#)



### **Purdue University Chosen by Indiana Office of Energy Development for Small Modular Nuclear Reactor Study!**

A Purdue University-led team was selected by the Indiana Office of Energy Development for a study on small modular nuclear reactor technology and the potential impacts should the technology be deployed in Indiana. Seungjin Kim, Professor and Capt. James F. McCarthy, Jr. and Cheryl E. McCarthy Head of the School of Nuclear Engineering, is leading the study as the principal investigator.

[Read more.](#)



### **Tetyana Martin Earns the First Online Masters of Nuclear Engineering Degree at Purdue!**

Tetyana Martin is the School of Nuclear Engineering's first graduate of the inaugural cohort of the online Master of Nuclear Engineering degree. This achievement will advance Tetyana's flourishing career in the nuclear industry.

[Read more.](#)



## **Lefteri Tsoukalas Helps to Lead Purdue to Energy Transition and Sustainability with LEAPS!**

, nuclear engineering [Lefteri Tsoukalas](#) professor and director of the Center for Intelligent Energy Systems (CIENS), is co-leading Purdue's newest initiative [Leading Energy-Transition Advances and Pathways to Sustainability \(LEAPS\)](#)

, alongside Chemical Engineering's Fabio Ribeiro. LEAPS aims to unlock a new level of research and education innovation that will cross disciplines, link campus expertise, and empower future engineers and entrepreneurs to lead the next generation of sustainable, affordable and reliable energy.



[Read more.](#)

## ***Student, Faculty, & Alumni Achievements***

### **Congratulations to the 2023-2024 School of Nuclear Engineering Award Recipients!**

The School of Nuclear Engineering held its annual awards ceremony and presented awards to presented awards to students, faculty and staff throughout the school. Team INL-HPMR won the Academic Achievement Award Senior Design Project showcase. In addition, Chloe Yoder became the first female NE student to earn an NRC Reactor Operators License.

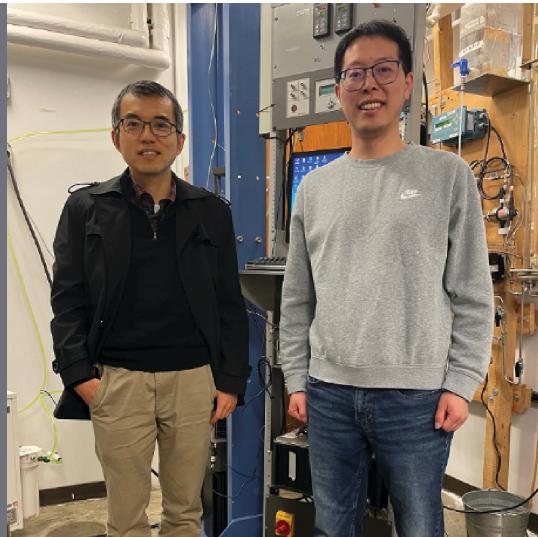


[Read more.](#)

### **Xiaoyuan Lou and a Team of Researchers Won the Journal of Nuclear Materials' Best Paper Award!**

Xiaoyuan Lou, associate professor of nuclear engineering, and collaborators across the nation, recently won the Journal of Nuclear Materials' 2023 Best Paper Award for, "Intragranular irradiation-assisted stress corrosion cracking (IASCC) of 316L stainless steel made by laser direct energy deposition additive manufacturing: Delta ferrite-dislocation channel interaction." Journal of Nuclear Materials is the highest scientific journal covering nuclear material-related topics. The award will be presented at the 2024 Nuclear Materials Conference (NuMat 2024) in Singapore and as an invited talk at the conference.

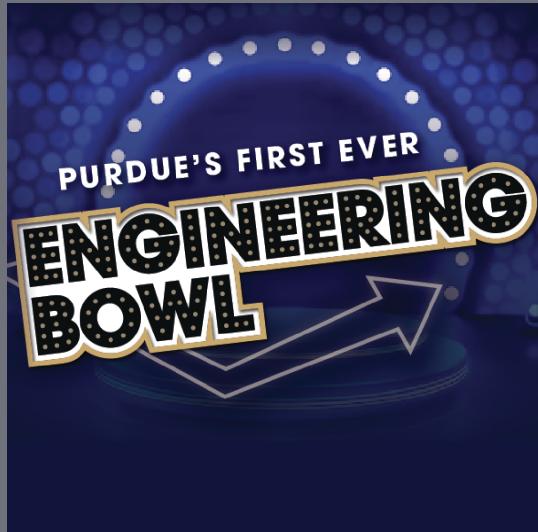
[Read more.](#)



### School of Nuclear Engineering's Jonah Lau, Organizes Purdue's First Engineering Bowl!

Jonah Lau, a recently graduated senior in the School of Nuclear Engineering, organized Purdue's first Engineering Bowl – a multidisciplinary quiz-style game show, aimed to bring the various engineering disciplines together to showcase their brilliant minds.

[Read more.](#)



### Seungjin Kim Elected as the New Chair of the Council of Advisors of the NEA Global Forum on Nuclear Education, Science, Technology and Policy!

Seungjin Kim, Professor and Capt. James F. McCarthy, Jr. and Cheryl E. McCarthy Head of the School of Nuclear Engineering, has been unanimously elected as the new Chair of the Council of Advisors of the Nuclear Energy Agency (NEA) Global Forum on Nuclear Education, Science, Technology and Policy.

[Read more.](#)

