



# WELCOME TO EARTH



## Environmentally Applied Refrigerant Technology Hub

stay *fresh* on upcoming events, surveys, publications, and more!

### Our Pillars



Convergent  
Research



Innovation  
Ecosystem



Engineering  
Workforce  
Development



Impact and  
Belonging

### Our Directors



**Mark B. Shiflett**  
Center Director  
U. Kansas



**Jennifer L. Schaefer**  
Deputy Director  
U. Notre Dame

### The News, Distilled

**Member  
Achievements**

**New  
Publications**

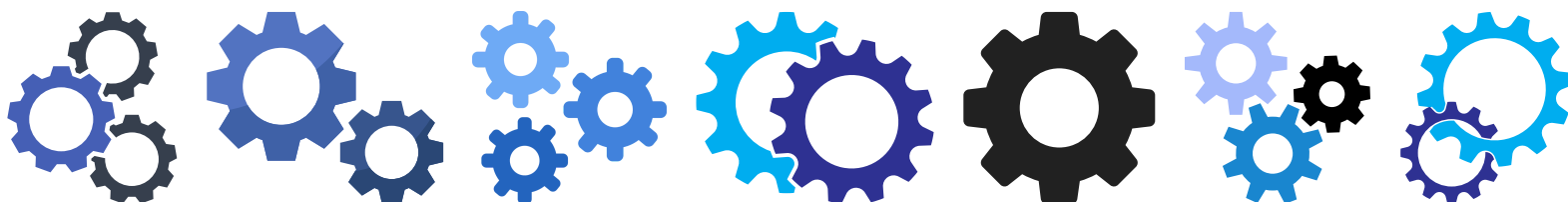
**Upcoming  
Webinars**

**Back-to-School  
Safety**

**EARTH Man  
Comic**



**Read More!**



**We will impact the engineering and scientific  
communities, the HVACR industry, and society!**



# Member Achievements

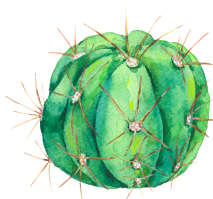


Professor **Dongxia Liu** received an NSF EPSCoR grant (Lead PI) on the Defluorination of Per- and Polyfluoroalkyl Substances!

Catch Dr. Liu on the Materials for Energy Innovation Panel at the ACS Fall 2025 Meeting in Washington D.C. on August 18.



Professors **Bess Vlasisavljevic** and **Ana Rita C. Morais** presented Keynote Lectures at the 2025 Great Plains Catalysis Society (GPCS) Symposium on August 11 at Iowa State University.



Graduate student at USD, **Gopal Kalapala**, successfully defended his Master's thesis and will continue his Ph.D. research in the Jiang Group on P1.2: Security Markers.



Lehigh University graduate student **Luc Mauro** presented his research, the C-H Activation of High-GWP Refrigerants with Iridium, at the Organometallic Gordon Research Conference at Salve Regina University in Newport, Rhode Island from July 13-18.



# New Publications



## A simple heat transfer model for annular flow condensation ✨



Chase Yankowski and Lingnan Lin\*  
*Int. J. Heat Mass Transf.* **2025**, 253, 127578.  
DOI: [10.1016/j.ijheatmasstransfer.2025.127578](https://doi.org/10.1016/j.ijheatmasstransfer.2025.127578)



## Council of Students (CoS) Spotlight

The EARTH Student Leadership Council (SLC) is excited to promote the first CoS Cohort Trip! The cohort trip will take place in Washington, D.C. on October 14th, 2025 and CoS members are invited to fill out the [official sign up form](#) now! The primary focus of this event is to explore how Ph.D. engineers can contribute to government, policy, and science communication. Students will attend an open forum with invited speakers from several key areas of government to explore their careers, paths into government work, and how they impact policy. Students will end the night by generating their own policy brief based on their project work in the EARTH ERC as their primary deliverable for the trip. For any questions, please contact Montana Carlozo ([mcarlozo@nd.edu](mailto:mcarlozo@nd.edu)). ✈️



## **Hot** Off the Press: EARTH in Print

Check out these news stories, written by our marketing and communications professional, Sally O'Dowd, on our RET (Research Experience for Teachers) program at the University of Kansas and University of Notre Dame!

["There's a lot of math in HVAC"](#)

[Keeping cool this summer](#)



# Upcoming Webinars

Recently inducted into the National Academy of Engineering, **Senior Principal Consultant at Chemours**, Concetta La Marca, will travel to the University of Kansas to meet with EARTH faculty and students and give a hybrid seminar on **August 26<sup>th</sup> at 2 pm Central / 3 pm Eastern**.

[Please register for the event!](#)



## Are you interested in learning about startups?

ERC EARTH is hosting Icorium Engineering Company for our Webinar Series this September! Our Student Leadership Council will be asking our two panelists questions about their journey into the startup world. This is a webinar you don't want to miss! *More details coming soon.*



**Kalin Baca, PhD**  
Co-Founder & CEO



**Abby Harders, PhD**  
Head of R&D



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# STEM Outreach with Kids!



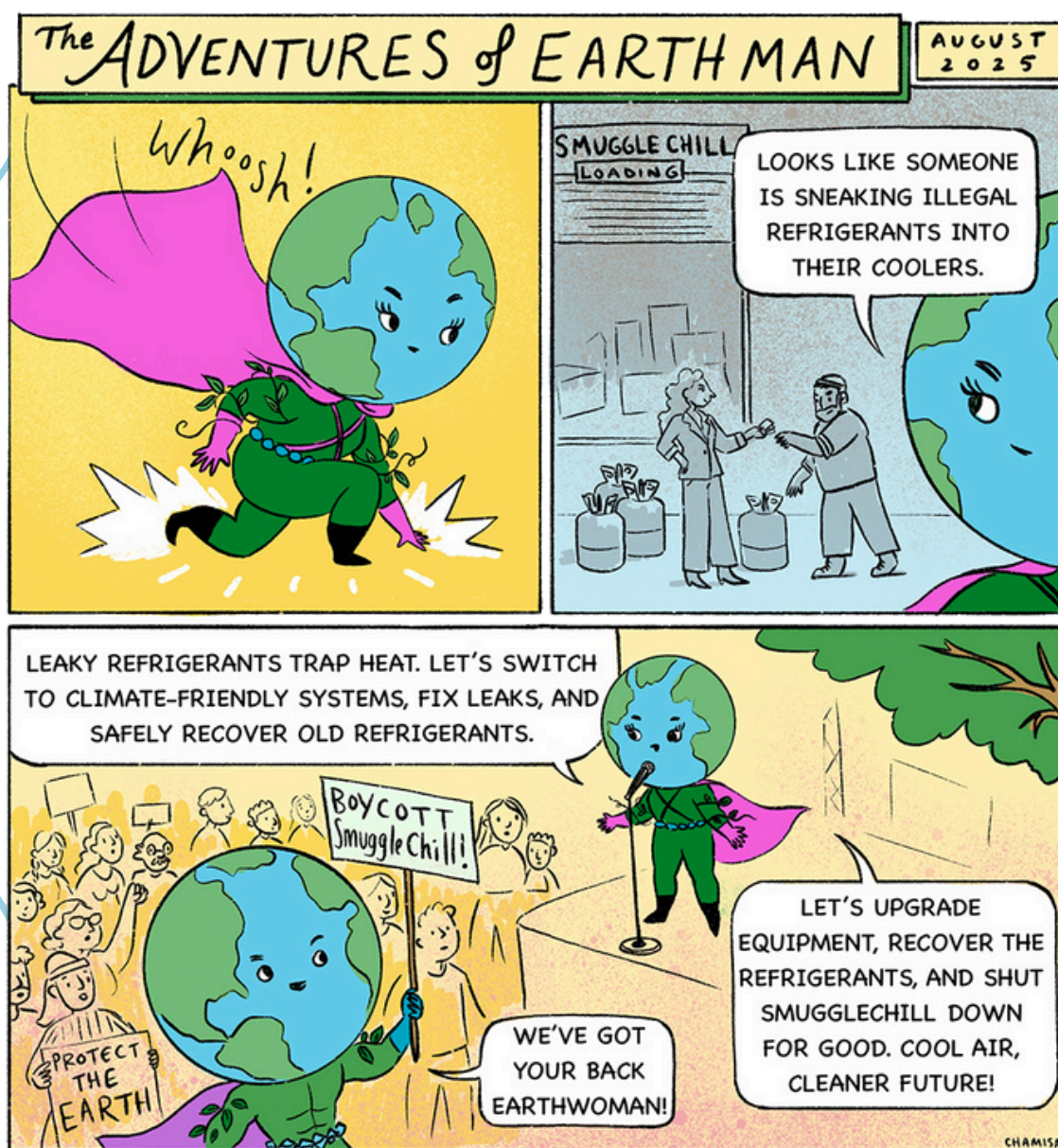
**Dr. Elizabeth Young** at Lehigh University has been leading her team of graduate students in service and outreach trips to local daycares since she began her career at Lehigh. Dr. Young and her group perform chemistry demonstrations and engaging experiments aimed at introducing science to 3–5-year-old kids. Each outreach visit incorporates different STEM themes such as light, phases of matter, density, trajectory, and more. **Dr. Young and other Lehigh students supported by the NSF ERC EARTH are currently developing heating and cooling experiments to introduce the importance of refrigeration to kids and their parents.** This month, the Young Lab made a trip to the Lehigh childcare center for their summer camp science week.





# Engineering Workforce Development

The **EARTH Summer Venture Program** brought together 10 high school students from the Kansas City metro area for a four-day immersive experience at the University of Kansas from July 21–24. Students explored engineering and sustainability through hands-on lab rotations, campus and museum tours, and interactive sessions with KU faculty, graduate students, and undergraduate researchers. They also built connections through team-building activities, trivia nights, and reflection circles while experiencing life on campus. The program culminated in the **Sustainable Technology Pitch Competition**, where all 10 students presented new technologies and innovative ideas they had developed during the week. By the end of the program, participants left with stronger friendships, mentorship connections, and a deeper understanding of engineering, sustainability, and university life.



Thank you to our fantastic artist, [Chamisa Kellogg](#)!

# Back-to-School Transportation Safety

*Whether you're heading to work or school by bus, bike, car, or on foot, it's important to keep transportation safety in mind!*



**Walking:** Use sidewalks whenever available and cross streets at designated crosswalks.



**Biking:** Always wear a helmet and ride in the same direction as traffic.



**Riding the bus:** Wait until the bus comes to a complete stop before standing, and never walk behind it.



**Driving:** Buckle up, stay alert, and follow the speed limit, especially in school zones.



As Labor Day approaches, we extend our deepest gratitude to everyone across the EARTH team for your dedication and hard work. This holiday serves as a meaningful reminder of the collective effort that drives our mission forward. We celebrate each of you and the impact you make every day.

**Wishing you a restful and well-deserved break.**

Click [here](#) to learn more about the history of Labor Day.

Do you have news or an accomplishment you'd like to share?  
Email Jessica Tami ([jltami@ku.edu](mailto:jltami@ku.edu)) to be featured in the next newsletter!

Please use the following statement in your publication acknowledgements if your research was funded by EARTH.

"This research is based upon work supported by the National Science Foundation under award number **ERC-2330175** for the Engineering Research Center EARTH."



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