

# THE ACTION & REACTION

Newsletter of the Mid-Michigan Section of the American Institute of Chemical Engineers

Volume 27 Issue 3 November 2024

*Mid-Michigan Section of AIChE Scholarship Opportunity*

## Engineering Exploration Scholarship



**Who:** Students in grades 9-11

**What:** Program scholarship covering tuition, room and board, up to \$100 in program lab fees plus a \$100 travel allotment to explore science and engineering through hands-on laboratory, classroom, and field experiences

**Where:**



Summer Youth Program at Michigan Technological University (MTU) in Houghton, MI

More information available at: <http://www.syp.mtu.edu/index.php>

**When:** One-week session in the summer of 2025

**Deadline:** Applications due by midnight on Monday, **November 25, 2024**

**Contact:** Apply online at <https://www.aiche.org/community/sites/local-sections/mid-michigan/engineering-exploration-scholarship>

Questions? Contact Ted Calverley at 989-948-7078 or [tcalverley@charter.net](mailto:tcalverley@charter.net)

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# Words from the Chair

By ROQUE GOCHEZ

Dear MMAICHE Community,

The end of the year is here, and it's time to celebrate! With the festive season, we get to enjoy some well-deserved time off and cherish moments with friends and family. It is the perfect opportunity to reflect on our achievements, and as AIChE local section, we have had an amazing start, and there is a lot to be proud of.

Engaging with future chemical engineers is a key element of our mission, and we have had two magnificent events doing exactly that. We recently organized a Dow plant tour for University of Michigan bachelor students, giving them a firsthand look at the daily life of a chemical engineer. After the tour, students had the chance to network with engineers from diverse career paths, showcasing the exciting variety of career options within the field. I thoroughly enjoyed interacting with them and extend my heartfelt thanks to Patrick Heider, Nathan Ng, and Vincent Copeland for leading this event. Additionally, we recently teamed up with the local section of ACS and the Society of Women Engineers (SWE) to host a STEM Day for Girl Scouts. This event featured hands-on demos and activities designed to spark interest in science and hopefully inspire the participants to pursue STEM education in the future.

It was a fantastic collaboration, and I thank Kim Dinh and Carlos Escobar to facilitate this effort.

We had a fantastic event at Dr. Nicole Shriner's lab at Michigan State University, where she and her team showcased the research around the uniqueness of Michigan-sourced raw materials for brewing and how they can be leveraged to make award-winning beers. We even got to taste some of their creations! It was wonderful to witness the innovative local research in this area.

We also successfully launched the 2024-2025 seminar series with a fantastic kick-off event at one of our favorite gathering spots: MI Elements Grains & Grounds. We shared many interesting facts in our trivia (*did you know that the official Michigan reptile is the painted turtle?*), the event brought together professionals from various companies, and backgrounds, making for an engaging and enriching evening.

In Fall, we have hosted two highly insightful seminars. In October, Dave Camp presented his recent experience in patenting an innovative process design for the production of divinylbenzene from styrene. His extensive dedication to the field of chemical engineering was evident and, personally, served as an inspiration for me to enhance my process development acumen.



Additionally, in November, Professor Itzel Márquez from Central Michigan University shared her exceptional research on water reuse. Her work exemplified the synergy between environmental engineering, chemistry, and chemical engineering in delivering sustainable solutions for future generations. She excels in fostering an inclusive environment where her diverse collaborators feel valued and heard, and her exemplary work ethic sets a high standard for others to follow.

Finally, I would like to welcome Navraj Hanspal from Corteva to our executive committee team, where he will be taking over the role of newsletter editor. We greatly value the diversity of companies represented in our group and I look forward to engaging more with the companies in the area in 2025!

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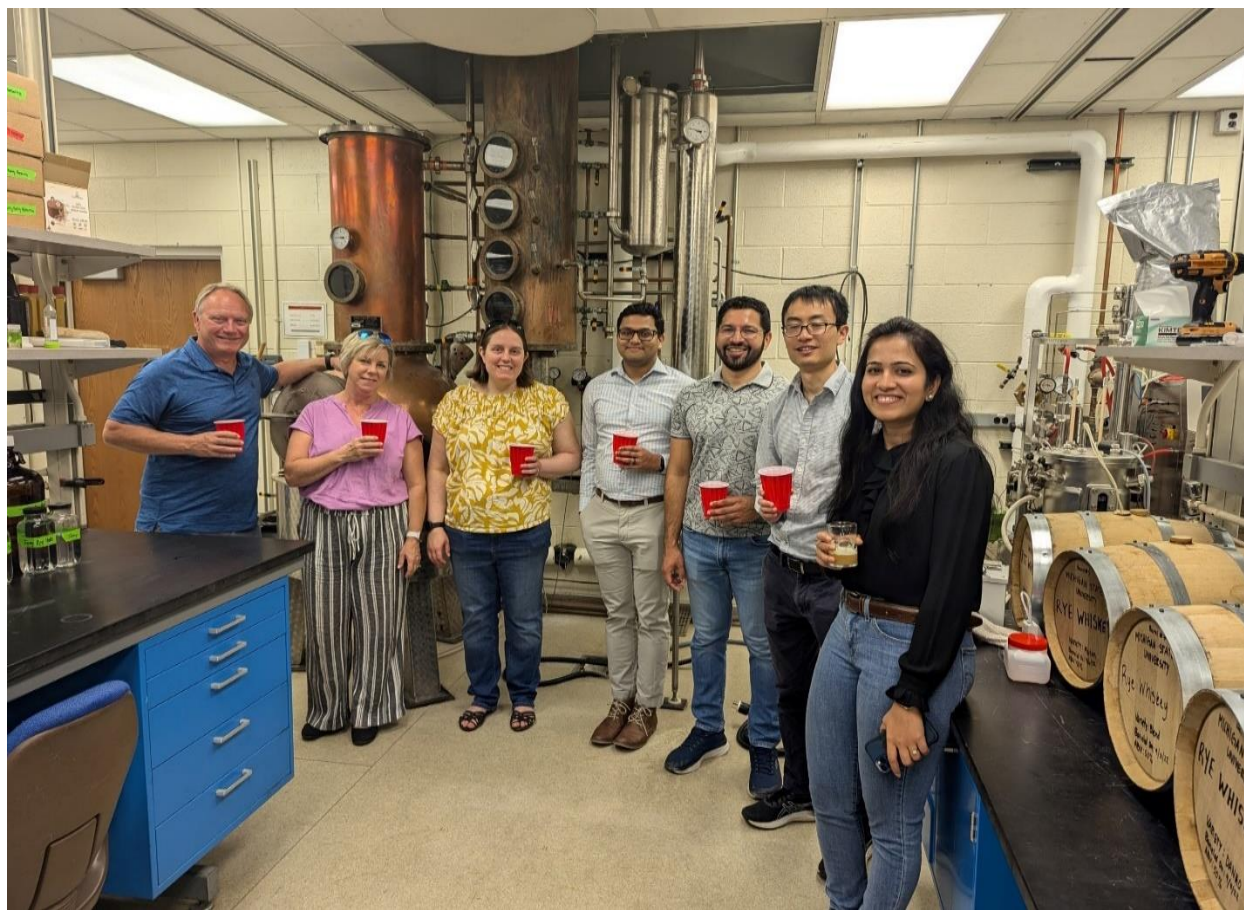
# Tour to Michigan State University (MSU) Fermentation Beverage Lab

By PATRICK HEIDER

On August 23, MMAICHe hosted a tour of the Michigan State University Fermented Beverage Lab. The tour was led by Dr. Nicole Shriner who runs the fermented beverage program at MSU. We learned about the sophisticated analytical equipment used to study the ingredients that go

into beer and other beverages. We also stopped by the student lab where they brew beer and distill spirits. Over 15 people attended the event which wrapped up with a visit to Lansing Brewing Company to see a small-scale commercial facility.

A smaller group meets regularly to home brew beer every few weeks in Midland. If you would like to be included on the emails about these events, please contact Patrick Heider (plheider@dow.com)



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## 2024 MMAICHe & ACSYCC Networking

By VINCENT COPELAND

On November 1st, MMAICHe partnered with ACS-YCC to host a professional development session for students from the University of Michigan's AIChE chapter. During this event, students learned about silicone chemistry while touring Dow R&D and manufacturing facilities. The event also included a speed networking session at MSU St. Andrews, where

students networked with industry professionals in various areas of chemical manufacturing. Following the event, students provided feedback indicating that the event was engaging and informative, helping them enhance their understanding of manufacturing and industrial R&D as well as assisting them in determining their future plans and goals. We would like to thank

ACS-YCC and all the volunteers who contributed to the success of this event and are looking forward to building on this event next year!

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# Welcome Navraj Hanspal to MMAIChE

About NAVRAJ HANSPAL (Joins as Newsletter Editor)

Navraj is a Computational Fluid Dynamics (CFD), Mixing & Fluid Mechanics Subject Matter Expert at Corteva Agriscience.

He graduated with a Bachelor's in Chemical Engineering from Malaviya National Institute of Technology (NIT) Jaipur, India. He then pursued a PhD studentship on an Industry funded European Union (EU) Project which enabled him to complete his doctoral studies from Loughborough University, UK.

After completing his PhD, he worked as a faculty member at the University of Manchester (UMIST), UK. He then transitioned into the US industry and prior to joining Corteva, has worked at Dow Corning Corporation (Hemlock Semiconductor Facility) and Ansys as a CFD Analyst and Senior CFD Applications Engineer respectively.

Outside of work he enjoys listening/playing music, sight-seeing and watching sports (Tennis, Soccer, Cricket).



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## Girl Scouts STEM Day

By KIM DINH & CARLOS ESCOBAR

Mid-Michigan AIChE, Midland ACS Diversity and Inclusion and Women Chemist Committees, and the Mid-Michigan Society of Women Engineers co-hosted a STEM Day for Girl Scouts in the Great

Lakes Bay Region on the morning of November 9 at Creative 360 in Midland. Nearly 40 girls ranging from 7 – 10 years old and their parents attended. The girls rotated among 4 demos: slime making,

shrinky dinks, rainbow milk, and CO<sub>2</sub>-extinguished candles and they all had a wonderful time. Thank you to Creative 360 and all our volunteers to make this happen.







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## Pictures from Additional MMAIChE Events

October 2024 Seminar by Prof. David Camp  
From Divinylbenzene (DVB) to Next Generation Styrene'



**November 2024 Seminar by Prof. Itzel Marquez (Central Michigan University)**  
**Approaches to wastewater potable reuse: Technologies to workforce development**



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