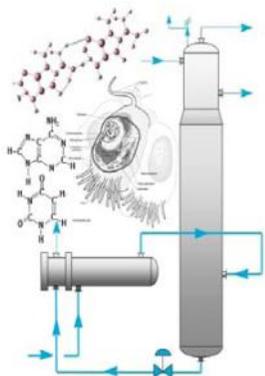


AIChE Chicago Section March Newsletter

Chicago Section

www.aiche.org/Chicago

March 2023



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Midwest Regional Conference (MRC)

April 11-12, 2023

University of Illinois Chicago

Organized by Chicago Local Section of AIChE, with support from AIChE Global



AIChE Chicago March Meeting

U.S. Department of Energy's Hydrogen and Fuel Cell Perspectives

Julie Fornaciari, PhD

***Hydrogen and Fuel Cell
Technologies Office, U.S.***



Date: ***Thursday, March 23, 2023***

Location: ***Crust Brewing
5500 Park PI
Rosemont, IL 60018***

Cost: ***\$50 — Non-member
\$40 — Local section and AIChE Global member
\$10 — Student
\$15 — Unemployed and Retired Member***

Registration and Information:

[Click to View Event Summary and Register](#)

Agenda:

5:30 to 6:00 PM: Social hour and networking
6:00 to 7:00 PM: Dinner
7:00 to 7:15 PM: Section Announcements
7:15 to 8:30 PM: Presentation and Q&A

Chair's Corner

March is Women's History Month— commemorating and encouraging the study, observance and celebration of the vital role of women in history. March 8th is International Women's Day (IWD), a global day celebrating the achievements of women. AIChE recognizes the women who have contributed to the Institute and the profession of chemical engineering and celebrates this month as well as International Women's Day. If you have not already, please consider reading this article from AIChE on celebration of IWD

(<https://www.aiche.org/chenected/2023/03/aiche-celebrates-international-womens-day>).



I hope everyone enjoyed our February virtual meeting and took this opportunity to invite your friends to give them exposure to our monthly meetings. For March meeting, we are pleased to host an in-person meeting. Our guest speaker will be Dr. Julie Fornaciari from Hydrogen and Fuel Cell Technology Office (HFTO). The talk is titled "U.S. Department of Energy's Hydrogen and Fuel Cell Perspectives ". Dr. Julie Fornaciari will provide an overview of hydrogen and fuel cell research, development, demonstration, and deployment (RDD&D) activities led by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE). The presentation will discuss how EERE's RDD&D efforts are advancing U.S. commitment to tackling the climate crisis through the DOE Hydrogen Program's H2@scale vision for clean hydrogen across the economy, and the Hydrogen Energy Earthshot seeking to cut the cost of clean hydrogen to \$1 per 1 kilogram in one decade. I, personally, am very excited and looking forward to presentation on this topic.

The MRC committee continues to make great progress

(<https://www.aiche.org/conferences/midwest-regional-conference/2023>). You can find more details on keynote speakers, full two-day technical program, and a call for volunteers on the website. Registration is currently open at <https://www.aiche.org/conferences/midwest-regional-conference/2023>. Please pass along the words to your colleagues to attend the conference and considering joining the Chicago Section.

March also brings us to a point of nominating volunteers to serve on the Chicago Section's Board of Directors for the next programming year. AIChE Chicago Section members may nominate one candidate for each open officer and director position.

As always, I am requesting your support and ideas to help us do better and share your perspective on what you would like us to do more. Please reach out to us on aichechicago@gmail.com with your ideas/suggestions/comments/questions- everything is welcome. Thanks again for your continued support.

Sarika Goel

AIChE Chicago Section Chair

AIChE Senior Member

March Meeting Speaker Information

U.S. Department of Energy's Hydrogen and Fuel Cell Perspectives

Speaker's Bio:

Julie Fornaciari is an ORISE Hydrogen Shot Fellow in the Hydrogen and Fuel Cell Technology Office (HFTO). She supports HFTO's fuel cell team, working towards cheap, heavy-duty fuel cell vehicle applications and establishing the recycling efforts as part of the Bipartisan Infrastructure Law in addition to office-wide efforts on workforce development and diversity, equity, inclusion, and accessibility. She received her PhD in chemical engineering focused on transport phenomena in electrochemical devices at the University of California, Berkeley in partnership with Lawrence Berkeley Laboratory in June 2022. Prior to that, she received her BS in chemical engineering at the University of Pittsburgh.



Abstract:

Hydrogen and fuel cells are emerging, versatile examples within a portfolio of advanced and sustainable energy options. Dr. Julie Fornaciari will provide an overview of hydrogen and fuel cell research, development, demonstration, and deployment (RDD&D) activities led by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE). The presentation will discuss how EERE's RDD&D efforts are advancing U.S. commitment to tackling the climate crisis through the DOE Hydrogen Program's H2@scale vision for clean hydrogen across the economy, and the Hydrogen Energy Earthshot seeking to cut the cost of clean hydrogen to \$1 per 1 kilogram in one decade. The presentation will also cover examples of H2@Scale projects demonstrating hydrogen's emission reduction and economic growth potential in hard to decarbonize sectors such as steel manufacturing and heavy duty applications, as well workforce development and international collaboration activities.

Registration: [Link](#)

2023 MIDWEST REGIONAL CONFERENCE**KEYNOTE SPEAKERS****Speaker's Bio — Rep. Sean Casten**

As a scientist, clean energy entrepreneur and CEO, and now as a Member of Congress, Representative Sean Casten has dedicated his life to fighting climate change. In Congress, Casten draws on his two decades of experience as a business leader to reduce emissions while creating jobs, lowering energy costs for Americans, and spurring economic growth.

Casten serves on the House Financial Services Committee and the Science, Space, and Technology Committee. He also serves as Vice-Chair of the Sustainable Energy and Environment Coalition (SEEC).

While working diligently in Washington on behalf of Illinois' 6th Congressional District, Rep. Casten is also committed to keeping in close contact with his constituents. He lives in Downers Grove with his family.



Visit Rep. Casten's [website](#)

[15th AIChE Midwest Regional Conference | AIChE](#)

Speaker's Bio — Susan Babinec

Sue Babinec is the Program Lead – Stationary Storage at Argonne National Lab where she leads efforts ranging from new tools and capabilities to enhance existing technologies and breakthrough research for new approaches to long duration energy storage goals. Babinec previously served six years in Washington DC as senior commercialization advisor at the Advanced Research Projects Agency – Energy (ARPA-E) where she co-managed the energy storage portfolio for both transportation and grid. Prior to ARPA-E she led several research groups focused on design and scale-up of Li-ion technologies as a technical director for A123 Systems, Inc.. Babinec spent the first two decades of her career at The Dow Chemical Corp., where she was the Senior Electrochemist, a senior member of the Corporate VC group, was awarded the Inventor of the Year Award, and was the company's first woman Corporate Fellow. She holds 50+ patents, and has authored or coauthored dozens of journal articles and book chapters.



2023 MIDWEST REGIONAL CONFERENCE

KEYNOTE SPEAKERS



Speaker's Bio — Quinta Warren

Dr. Quinta Warren is the Associate Director of Sustainability Policy at Consumer Reports (CR), where she leads the legislative, regulatory, and corporate engagement strategies for sustainability on behalf of consumers.

She is the co-author of a major CR survey report on consumer attitudes toward electric vehicles and low carbon fuels. She recently testified before Congress about the consumer benefits of the historic clean energy provisions in the Inflation Reduction Act. She and her team have also worked closely with policymakers and consumers to advance reforms such as California's landmark Advanced Clean Cars rule and the federal government's new standards for fuel economy and emissions.

Previously, Dr. Warren worked on carbon capture with ConocoPhillips, power generation with the Department of Energy, and international development with the Millennium Challenge Corporation and her own firm, Energy Research Consulting.

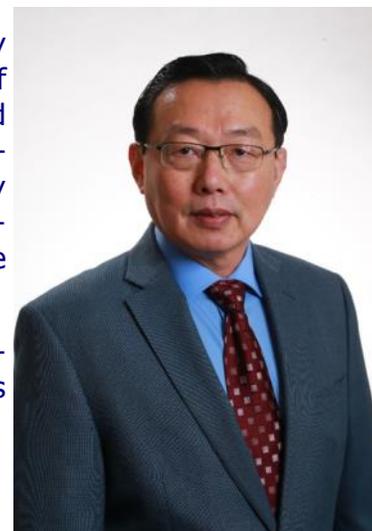
Dr. Warren holds a PhD in Chemical & Biomolecular Engineering from Georgia Tech, and a Bachelors in Chemical Engineering from Penn State.



Speaker's Bio — Frank Zhu

Dr. Frank Zhu is a Honeywell-UOP Senior Fellow leading technology innovations and has made significant contributions to the fields of energy efficiency, operation optimization, and process modeling and design. Franks' methods have been successfully applied to industries and generated significant benefits in economic margin, energy savings and emission reductions. For example, he led design of several grassroots refineries and petrochemical complexes which are ranked in the category of the highest energy efficiency worldwide.

Frank was the recipient of the prestigious AIChE Energy Sustainability Award 2014 due to his contributions. Published several books and more than 100 papers and 60 patents granted.



2023 MIDWEST REGIONAL CONFERENCE TECHNICAL PROGRAM



Tuesday, April 11th, Track 1, AM

8:15	8:30	Conference Introduction: Keynote Introduction:
8:30	9:30	Morning Keynote: Rep. Sean Casten <i>Cardinal Room</i>
9:30	9:45	Networking Break
9:45	10:45	Keynote Introduction: Morning Keynote: Susan Babinec, Argonne National Lab <i>Cardinal Room</i>
10:45	11:20	Networking Break
11:20	12:15	Lunch Break

Tuesday, April 11th, Track 1, PM

		Session I (Cardinal Room): Energy Storage I Session Chair: Juan Garcia Session Co-Chair: Hakim Iddir
12:15	13:30	Talk #1 - Jiajun Chen (Argonne National Lab) - Study of Earth-Abundant, Mn-Rich Cathodes for Vehicle Applications and Beyond Talk #2 - Sakshi Singh (UIC) - Na-Ion Delivery Via Molecular Cages in Porous Liquid Type-II Electrolytes Talk #3 - Said Al-Hallaj (UIC) - Hybrid Air Conditioning-Thermal Energy Storage for Space Cooling Applications
13:30	13:45	Networking Break
		Session II (Cardinal Room): Energy Storage II Session Chair: Hakim Iddir Session Co-Chair: Juan Garcia
13:45	15:00	Talk #1 - Juan Garcia (Argonne National Lab) - Structural Features in Li- and Mn-Rich Cathodes That Modify the Impedance at Low State of Charge Talk #2 - Kevin Knehr (Argonne National Lab) - Role of Crystal Size in Dynamic Charge Acceptance of Lead-Acid Batteries Talk #3 - Abhas Deva (Argonne National Lab) - Physics Informed Design of Porous Silicon-Based Electrodes
15:00	15:15	Networking Break
		Session III (Cardinal Room): Advances in Refining & Biorefining Technology Session Chair: Rishabh Jain Session Co-Chair: Belma Demirel
15:15	16:55	Talk #1 - Pahola Thathiana Benavides (Argonne National Lab) - Life Cycle and Technoeconomic Analyses of Catalyst Used in the Conversion of Waste Plastic to Lubricate Oils from Upcycled Plastics (LOUPs) Talk #2 - Jeron Chin (Haldor Topsoe) - Status of Blue H ₂ and Blue Ammonia As the New Decarbonized Fuel of Today and the Future Talk #3 - Jeff Martin (Ketjen) - Effective and Efficient Chemical Recycling of Waste Plastics Is Dependent on the Presence of Catalysts Talk #4 - Sean Rollag (LanzaTech) - Gas Fermentation: New Process Technology for a Circular Carbon Economy
16:55	17:45	Poster Session/Networking Break (Dearborn B)
17:45	19:30	Chicago Section Monthly Technical Dinner (Illinois AB) <i>Dinner Keynote (Illinois AB): Quinta Warren, Consumer Reports</i>

2023 MIDWEST REGIONAL CONFERENCE TECHNICAL PROGRAM



Tuesday, April 11th, Track 2, AM

8:15	8:30	Conference Introduction: Keynote Introduction:
8:30	9:30	Morning Keynote: Rep. Sean Casten <i>Cardinal Room</i>
9:30	9:45	Networking Break
9:45	10:45	Keynote Introduction: Morning Keynote: Susan Babinec, Argonne National Lab <i>Cardinal Room</i>
10:45	11:20	Networking Break
11:20	12:15	Lunch Break

Tuesday, April 11th, Track 2, PM

		Session I (Illinois C): Process Safety Session Chair: Jessica Morris Session Co-Chair:
12:15	13:05	Talk #1 - William Giang (PSRG Inc.) - Process Safety in Hydrogen Industries Talk #2 - Domingo Elias (Exponent) - PSM Pillars... or Dominoes? a Case Study to Consider the Link between Certain PSM Pillars.
13:05	13:20	Networking Break
		Session II (Illinois C): Environmental Compliance / Remediation Session Chair: Aditya Prajapati Session Co-Chair: Taiwo Adesanya
13:20	15:00	Talk #1 - Kiana Modaresahmadi (UIC) - Removal of Fluoride from Water Using Hybrid Aluminum-Magnesium-Calcium Coated Sand Adsorbent Talk #2 - Saurabh N. Misal (UIC) - Electrochemical Degradation of Perfluorooctanoic Acid Using Electrocatalytic Reactive Electrochemical Membranes Talk #3 - Jacob King (UIC) - Electrochemical Reduction Using Ti4O7 Reactive Membranes Impregnated with Nickel and Iron for Pfas Destruction Talk #4 - Shirin Saffar Avval (UIC) - A Mechanistic Study on per-and Polyfluorinated Substances (PFAS) Electrooxidation on Ti4O7 Anodes
15:00	15:15	Networking Break
		Session III (Illinois C): Green Engineering Session Chair: Jason Wu Session Co-Chair: Omar Aly
15:15	16:55	Talk #1 - Filip Formalik (Northwestern) - Computational Screening of MOF and Working Fluid Pairs for Adsorption Cooling Applications Talk #2 - Hyun Park (UIC) - Graph Neural Network Model to Predict Carbon Adsorption Capability of MOF Talk #3 - Ruijie Zhu (Northwestern) - Diffusion Model Accelerates Computational Design of MOF Structures for Carbon Capture Talk #4 - Katelyn Tran (Wood Group USA) - Left or Right? Which Way on a Decarbonization Journey?
16:55	17:45	Poster Session/Networking Break (Dearborn B)
17:45	19:30	Chicago Section Monthly Technical Dinner (Illinois AB) <i>Dinner Keynote (Illinois AB): Quinta Warren, Consumer Reports</i>

2023 MIDWEST REGIONAL CONFERENCE TECHNICAL PROGRAM



Wednesday, April 12th, Track 1, AM

8:45	9:00	Conference Introduction:
		Session I (Cardinal Room): Bioengineering & Nanotechnologies Session Chair: Meltem Urgun-Demirtas
9:00	10:15	Talk #1 - Fatima Rizwan (IIT) - Optimization of Cell-Free Protein Synthesis By Screening the Escherichia coli Whole Genome Talk #2 - Harshdeep Bhatia (UIC) - Will Future Generations of N95 Masks Include Atomic Layer Deposited Silver Nano-Islands? Talk #3 - Emily Kim (UPenn) - Developing a Platform for Induced Pluripotent Stem Cell Reprogramming through Lipid Nanoparticle-Based mRNA Delivery
10:15	10:30	Networking Break
		Session II (Cardinal Room): Bioengineering & Nanotechnologies Session Chair: Meltem Urgun-Demirtas
10:30	11:20	Talk #1 - Sungjoon Kim (UIC) - Inter-Electronic and Inter-Valley Transitions in MoS ₂ -WS ₂ Heterostructures and Alloys Talk #2 - Julia Lenef (University of Michigan) - Tunable Sulfur Incorporation into Atomic Layer Deposition Films Using Solution Anion Exchange
11:20	12:45	Networking / Lunch Break

Wednesday, April 12th, Track 1, PM

12:45	13:45	Keynote Introduction: Afternoon Keynote: Frank Zhu, Honeywell UOP
13:45	14:00	Networking Break
		Session III (Cardinal Room): Catalysis I Session Chair: Trevor Lardinois Session Co-Chair: Nicole Libretto
14:00	15:15	Talk #1 - Basil Rawah (ISU) - Amino Acid Glycine-Derived Metal-Free Nitrogen-Doped Ordered Mesoporous Carbon for Efficient Electrochemical Synthesis of Hydrogen Peroxide (H ₂ O ₂) Talk #2 - Eman Wasim (IU) - Ligand-Coordination Effects on the Selective Hydrogenation of Acetylene in Single-Site Pd-Ligand Supported Catalysts Talk #3 - Zuhail Cakir (Purdue) - First-Principles Analysis of the Ammonia Decomposition Reaction on High Entropy Alloy Catalysts
15:15	15:30	Networking Break
		Session IV (Cardinal Room): Catalysis II Session Chair: Nicole Libretto Session Co-Chair: Trevor Lardinois
15:30	16:45	Talk #1 - Hiyab Mekonnen (Northwestern) - Mechanistic Insight into Tris(pentafluorophenyl)Borane Speciation during Ring Opening of Epoxides Talk #2 - Mingyuan Cao (Notre Dame) - Non-Thermal Plasma Assisted Catalytic Water Splitting for Clean Hydrogen Production at Near Ambient Conditions Talk #3 - Neha Mehra (Notre Dame) - Deciphering Activity Controls for Ethylene Oligomerization Catalyzed By Metal Ions Grafted on Oxide Supports By Computational Interrogation
16:45	18:00	Happy Hour Hosted by CLS YP (all welcome)

2023 MIDWEST REGIONAL CONFERENCE TECHNICAL PROGRAM



Wednesday, April 12th, Track 2, AM

8:45	9:00	Conference Introduction:
		Session I (Cardinal Room): Machine Learning & Optimization Session Chair: Aashutosh Mistry
9:00	10:15	Talk #1 - Angan Mukherjee (WVU) - Hybrid Series and Parallel All-Nonlinear Dynamic-Static Neural Network Development, Training, and Application to Chemical Processes Talk #2 - Manuel Tsotsals (Karlsruhe Institute of Technology) - Accelerating MOF Synthesis Via Data Mining Machine Learning Talk #3 - Srishyam Raghavan (UIC) - Small Molecule Adsorption Energy Predictions for High-Throughput Screening of Electrocatalysts
10:15	10:30	Networking Break
		Session II (Cardinal Room): Machine Learning & Optimization Session Chair: Aashutosh Mistry
10:30	11:20	Talk #1 - Xiaoli Yan (UIC) - Generative Adversarial Network to Accelerate Computational Screening of Meta Organic Framework Structures Talk #2 - Seth Moore (UChicago) - Exploring MOF Sorption Properties with Topological Data Analysis
11:20	12:45	Networking / Lunch Break

Wednesday, April 12th, Track 2, PM

12:45	13:45	Keynote Introduction: Afternoon Keynote: Frank Zhu, Honeywell UOP
13:45	14:00	Networking Break
		Session III (Illinois C): Fluid Properties, Fluid Dynamics, & Transport Phenomena Session Chair: Hadjira Iddir
14:00	15:15	Talk #1 - Qingsong Liu (Northwestern) - Obtaining Structural Information of Carbon Black in Carbon Black/Polyvinylidene Difluoride Suspensions with Simultaneous Rheo-Electric Measurements Talk #2 - Seyed Amirfakhri (Univ of Wisconsin) - Performance of a CSTR Activated Sludge with Different Configurations for Municipal Wastewater Treatment Talk #3 - Zeyuan Gao (IIT) - Modeling and Numerical Simulation of Concentrated Solar Energy Storage in a Packed Bed of Silicon Carbide Particles
15:15	15:30	Networking Break
		Session IV (Illinois C): Polymer Session Chair: Carina Martinez Session Co-Chair: Cheryl Slykas
15:30	16:45	Talk #1 - Negin Razavilar (Kettering University) - Molecular-Level Insights into the Diffusion Mechanism of a Hydrophobic Drug from a Block Copolymer Micelle By Molecular Dynamics Simulation Talk #2 - Logan Fenimore (Northwestern) - Upcycling Virgin and Waste Polyethylene to Reprocessable Dynamic Covalent Networks Via Free-Radical Grafting of Dialkylamino Disulfide Bonds Talk #3 - Louis Edano (UIC) - Rheology and Spinnability of Polyvinylpyrrolidone Solutions
16:45	18:00	Happy Hour Hosted by CLS YP (all welcome)

ENGINEERING CAREER DAY

for high school students

SAVE THE DATE – APRIL 11th OR 12th, 2023
UIC Student Center East

AIChE
MIDWEST REGIONAL
CONFERENCE

Presented by:
American Institute of Chemical Engineers
& UIC College of Engineering

UIC ENGINEERING

REQUEST TICKETS HERE: <https://forms.gle/nVQgcVQxe6g5JmVs6>

Don't delay. Both days fill up fast!

TENTATIVE PROGRAM

April 11th or 12th, 2023 | 8:30 AM – 1:30pm

Engineering Expo

Meet with current engineering students and check out their current projects

Exploring Engineering Careers

Learn about how engineers contribute to all aspects of society

Team Building Exercise

Collaborate with other students to complete a hands-on engineering task

Engineering Lunch

An opportunity for one-on-one discussions with engineering professionals and students

Keynote Speaker – Valarie King-Bailey, MBA

We are pleased to announce Valarie King-Bailey, CEO of OnShore Technology Group as our Keynote Speaker. Hear her personal perspective of being an engineer!

Engineering Panel Session

Learn about the day-to-day activities of practicing engineers and engineering students. Time to ask your most burning questions!

**Only 200
students per day!**



Questions?

Please contact: aiche.chicago.outreach@gmail.com

Hosted by:

UIC UNIVERSITY OF
ILLINOIS CHICAGO



AIChE Chicago Section Poster Competition

Tuesday April 11, 2023

4:55 PM – 5:45 PM

University of Illinois at Chicago

Submission by Wednesday April 5, 2023

Submit title and abstract (500 words maximum) to

Adam Kanyuh Adam.Kanyuh@honeywell.com

Prizes: Gift cards to the top undergraduate and graduate students

More Information: Posters on any topic related to chemical engineering are welcome, including research and senior design projects. The competition will be judged by chemical engineers using the AIChE National Student Poster Session judging criteria based on quality of poster, presentation, delivery, and importance/relevance of project.

Questions? Contact Adam Kanyuh Adam.Kanyuh@honeywell.com

Posters Judges Needed!

Judges are needed for the student poster competition that will be held at the **April 11 local section meeting**. Posters will be judged on quality and organization, the student's delivery and ability to answer questions, and the importance/relevance of the project.

Please email Adam Kanyuh Adam.Kanyuh@honeywell.com if you would be willing to assist.

2023 AIChE North Central Regional Conference

Hello!

The student chapter of the American Institute of Chemical Engineers (AIChE) at the University of Illinois Chicago is excited and honored to host the 2023 AIChE North Central Regional Student Conference, to be held March 31–April 1, 2023. We are writing to ask for your support.

AIChE's Regional Student Conference is an annual event that attracts the best and the brightest engineering students from colleges and universities across the Midwest. The goal of this event is to provide an opportunity for serious-minded students to come together to share their technical knowledge, compare notes on their university experiences, talk about plans for the future, and meet with industry professionals. The highlights of the meeting are the Chem-E-Car Competition, ChemE Jeopardy, presentation, and poster competitions, as well as interesting and educational workshops. Students from visiting universities prepare entries, and the winners travel to AIChE's Annual Meeting to compete against the first-place winners in AIChE's eight other regions.

Over 25 different universities from 6 different states are invited to take part in the North-Central Regional Conference. We will provide food and merchandise for visiting students and volunteers. Based on past regional student conference expenses and initial decisions with service providers, our budget is approximately \$35,000.

As a sponsor of the event, your company would be recognized in the student program and your logo displayed during the conference. A representative from your company will also be invited to attend the event where they will be publicly recognized.

We hope you will join us for the conference with the Career Fair to be held on April 1, 2023. We look forward to hearing from you. If you would like to know more about the conference, please contact us by email at aichenc23@gmail.com.

Sincerely,
Abigail Hartzell
2023 AIChE North Central Regional Conference Head Chair
Student Chapter President of AIChE's Chapter at UIC

2023 AIChE North Central Regional Conference

Who Will Attend?

Over 400 students from the following Universities are invited!

Case Western Reserve University Student Chapter
Cleveland State University Student Chapter
Illinois Institute of Technology Student Chapter
Kettering University Student Chapter
McMaster University Student Chapter
Miami University Student Chapter
Michigan State University Student Chapter
Michigan Technological University Student Chapter
Northwestern University Student Chapter
Ohio State University Student Chapter
Ohio University Student Chapter
Purdue University Student Chapter
Rose-Hulman Institute of Technology Student Chapter
Trine University Student Chapter
University of Akron Student Chapter
University of Cincinnati Student Chapter
University of Dayton Student Chapter
University of Illinois, Chicago Student Chapter
University of Illinois, Urbana, Student Chapter
University of Michigan-Ann Arbor, Student Chapter
University of Minnesota, Duluth, Student Chapter
University of Minnesota, Minneapolis Student Chapter
University of Notre Dame Student Chapter
University of Toledo Student Chapter
University of Wisconsin - Stevens Point Student Chapter
University of Wisconsin - Madison Student Chapter
Wayne State University Student Chapter
Western Michigan University Student Chapter
Youngstown State University Student Chapter



2023 AIChE North Central Regional Conference

2023 AIChE North Central Regional Conference Event List

Chem-E-Car Competition

Students spend months working to perfect a car that runs on a chemical reaction. There are many rules and guidelines students must follow including a given distance their car must travel (which they do not learn until the day of the event)!

Many students are involved in research or innovative projects that utilize the principles of chemical engineering. This competition allows students to present a poster and speech showcasing their findings.

Poster Competition

Student Technical Presentation (Paper) Competition

This competition also allows students to present their hard work and learnings from their undergraduate research experience. This competition involves a longer, more in depth look into their projects.

Teams of students compete against different universities by working together to showcase their immense knowledge of chemical engineering in a fun take on the classic game of Jeopardy.

ChemE Jeopardy

Workshops

Attending students are invited to a variety of workshops to help with both personal and professional development.

Workshop topics can range from leadership skills to the various fields within chemical engineering!

Students, companies, and universities are invited to participate in a career fair. Tables are available for companies and universities to speak with students at the conference, collect resumes, and find students interested in jobs, internships, graduate programs, and more!

Career Fair

2023 AIChE North Central Regional Conference

Why be a Sponsor?

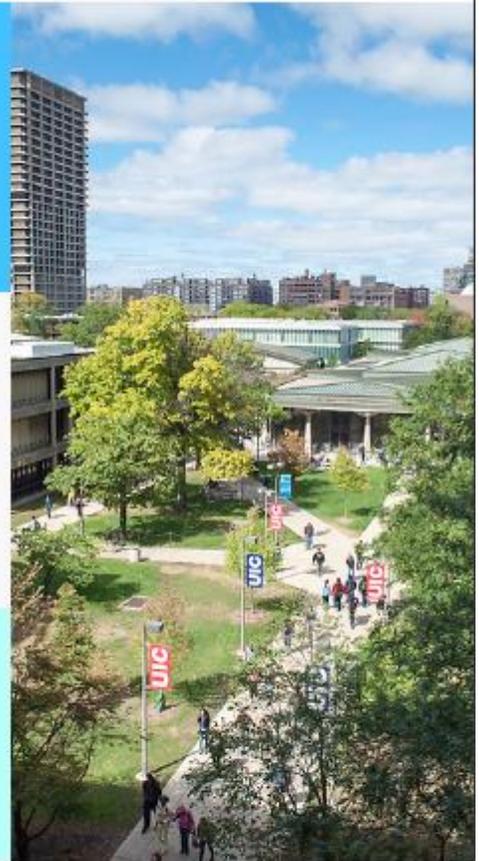
The 2023 AIChE North Central Regional Conference has the backing and support of the American Institute of Chemical Engineers (AIChE). Your company can join this select group of allies and show yourself as an organization who has a high impact on social responsibility and encourages quality of education and research.

Sponsorship Options

There are a variety of ways in which your company could help contribute to the 2023 AIChE North Central Regional Conference at UIC. See options listed below:

- Gold Sponsor
- Silver Sponsor
- Bronze Sponsor
- Career Fair Participant

** All monetary donations will go towards planning and preparation elements for the Regional Conference, such as venue costs, supplies for competitions, food provided, merchandise for attendees and volunteers, etc.**



2023 AIChE North Central Regional Conference

Want to contribute more or in a different way?

There are other ways your company can contribute to help make our conference a success!

- Provide a workshop that focuses on educational, personal, or professional growth for students
- Provide branded giveaways or other items to be included in conference swag bag
- Serve as a judge for one of the multiple competitions

Have another idea of how you would like to help?

Just let us know!

We sincerely appreciate your time and any contribution possible!



UIC Engineering Innovation Building (EIB)

929 W Taylor St, Chicago, IL 60607



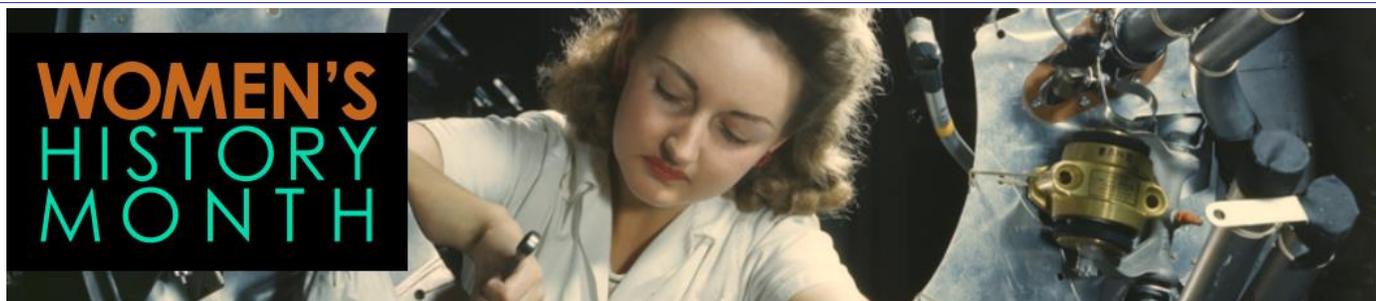
Telephone

+1 312-996-3424



Website

www.aichenc23.wixsite.com/aiche-north-central



March is Women's History Month The Library of Congress, National Archives and Records Administration, National Endowment for the Humanities, National Gallery of Art, National Park Service, Smithsonian Institution and United States Holocaust Memorial Museum join in commemorating and encouraging the study, observance and celebration of the vital role of women in American history.

[Read More »](#)

[Women in Chemical Engineering: An AIChE Community](#)

The Women's Initiatives Committee was chartered in 1998, with Joan Brennecke (then at the University of Notre Dame, and today at University of Texas at Austin) as its first chair.

Today, WIC is one of AIChE's most active communities, and the committee continues to expand its activities. In addition to AIChE meeting workshops for undergraduates, grad students, and women in academia, recent programming has been dedicated to women in the petrochemicals industries, women in process safety, workplace retention and reentry for women in the profession, and many other topics pertinent to the community.

In a move to better reflect WIC's contributions and leadership role in AIChE and the chemical engineering profession at large, in 2019 the leaders of the Women's Initiative Committee relaunched the group under a new name — Women in Chemical Engineering, an AIChE Community — emphasizing the inclusivity and community aspect of WIC.

The group's mission remains much the same as it was when WIC was first established:

Women in Chemical Engineering, an AIChE Community will lead in promoting the entry, development, and full participation of women in the Institute and the profession through the following strategies:

- ◆ Develop/distribute resources on subjects pertaining to women in the profession.
- ◆ Mobilize AIChE to meet the needs of existing and potential female members of AIChE and the profession.
- ◆ Provide networking means for women in AIChE.
- ◆ Increase the visibility of women within AIChE and the profession.

[Read Complete Article and More on AIChE ChEnected »](#)



Upcoming AIChE Conferences, Meetings and Webinars

AIChE Conferences

Mar 12-16, 2023	2023 Spring Meeting and 19th Global Congress on Process Safety , Hilton Americas - Houston, George R. Brown Convention Center, Houston, TX
Mar 16, 2022	Spring 2023 TSC Meeting , Vic & Anthony's Steakhouse, TX
Mar 26-30, 2023	2023 ACS Spring Hybrid National Meeting , Indianapolis, IN
Mar 30, 2023	CCPS Latin America Regional Technical Steering Committee Meeting , Houston, TX
Mar 31, 2023	2023 North Central Student Regional Conference , University of Illinois at Chicago, IL
Mar 31, 2023	2023 Southwest Student Regional Conference , Texas A&M University, College Station, TX
Mar 31-Apr 1, 2023	2023 Eckhardt Northeast Student Regional Conference , McGill University, Montreal, Quebec, Canada

AIChE Webinars

Mar 21, 2022	Leadership Workshop for Rising Star Women Engineers 2023
Mar 24, 2022	Detect and Prevent Costly Spills with Double Contained Piping Systems

NOMINATIONS REQUESTED FOR THE ERNEST W. THIELE AWARD

The Ernest W. Thiele award is sponsored by bp and recognizes the outstanding contributions to our profession by a Midwest region chemical engineer. This award was established by the AIChE Chicago Section and is presented annually to a Midwest region AIChE member. This internationally recognized award consists of an engraved plaque and \$1,000 honorarium presented at a monthly section meeting.

Nomination forms and additional information can be obtained from the Thiele Committee Chair. Completed nominations are due to the committee chair no later than **April 01, 2023**.

One of the highest honors a distinguished chemical engineer can receive is our AIChE Chicago Section Thiele award. Please consider nominating a deserving engineer for this prestigious award.

More information about this award and the past winners:

<https://www.aiche.org/community/sites/chicago-local-section/ernest-w-thiele-award>

<https://www.aiche.org/community/sites/local-sections/chicago/thiele-award-past-winners>

To nominate, please contact:
Jeffrey Zalc
 bp Solutions, P&O
 phone: 630.881.5478
 email: jeffrey.zalc@bp.com

2023 Meeting Schedule and Speakers

Month	Date	Speaker	Affiliation	Topic
March	March 23rd	Dr. Julie Fornaciari	Hydrogen and Fuel Cell Technologies Office, U.S.	U.S. Department of Energy's Hydrogen and Fuel Cell Perspectives
April	TBD	TBD	TBD	TBD
May	TBD	TBD	TBD	TBD

Attention Students and Parents!

If you are an undergraduate chemical engineering student or have a son or daughter that plans to study chemical engineering you may be interested in the Chicago Section's scholarship program.

Applications are due **March 15th**.

Please [click here](#) to read rules and eligibility.

For a Link to the Electronic Version of the AIChE Chicago Scholarship Application Form, Click on the Link Below:

<http://form.jotform.us/form/42814483647159>



[Connect with members & participate in discussions on Engage!](#)

Check out AIChE's member benefit, AIChE Engage. Use the robust directory search to find and connect with members. Participate in technical, career, and academic discussions about chemical engineering.

Thread Subject	Replies	Last Post
Improving Soft Skills Through Mentorship article- Aiche/CEP December 2020 CEP	0	9 hours ago by Chris
PhD Thesis		
Pressure setting for manway cover for tank emergency		by Anil Ramdeo
Digitalization in the process industry		yesterday by John Braccili Original post by Rohit Korde
Slow Progress of New-Age Tools in Chemical Eng	6	3 days ago by Jacob Albrecht Original post by Kushal Sinha



Volunteers Needed for Chicago Local Section

How many opportunities can you find to learn project management, delegation and leadership skills for free? Volunteering with the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your professional network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

Volunteers are needed to help with:

- Programming – arrange speakers for monthly meetings, and arrange catering and venues
- Logistics – arrange catering and venues
- Newsletter Editor – prepare and publish ten monthly newsletters
- Newsletter Contributions – write meeting summaries, contribute photos, and more
- Engineering Outreach – coordinate three annual K-12 outreach events with high schools and colleges
- Professional Development and Sponsorship – arrange companies to sponsor pre-meeting talks to help fund student dinners
- Awards and Scholarship Committees – Review applications for local Section award and scholarships
- Midwest Regional Conference – many opportunities including programming, logistics, website, advertising, sponsorship, high school outreach, poster session and more!
- Young Professionals – plan socials and programming for young professionals (under 35)



If you are interested in any of these positions, please contact us aichechicago@gmail.com.

Why Renew Your AIChE Membership?

Renew your membership now to keep learning and growing.

Renew Membership



Stay Connected to 40,000+ international members who take advantage of:

- Subscription to AIChE's flagship publication: CEP*
- Education—Access to e-learning courses and instructor-led training, offering Continuing Education Units and PDHs
- Access to CareerEngineer—a comprehensive job site tailored to chemical engineers
- Access to the AIChE eLibrary—a wealth of information from Knovel Life Sciences and the McGraw-Hill AccessEngineering Library collections

[View COMPLETE benefits](#)

AIChE Volunteer and Meeting Attendee Conduct Guidelines

AIChE's volunteers are the core of the Institute and make all of its programs, conferences and educational efforts possible. These offerings provide excellent opportunities for AIChE members and meeting attendees to gain greater technical expertise, grow their networks, and enhance their careers. AIChE events provide engineers, scientists, and students a platform to present, discuss, publish and exhibit their discoveries and technical advances.

At all times, volunteers and meeting attendees should act in accordance with AIChE's Code of Ethics, upholding and advancing the integrity, honor and dignity of the chemical engineering profession. AIChE's Board of Directors has developed these guidelines to foster a positive environment of trust, respect, open communications, and ethical behavior. These guidelines apply to meetings, conferences, workshops, courses and other events organized by AIChE or any of its entities and also to volunteers who conduct other business and affairs on behalf of AIChE.

Specifically

1. Volunteers and meeting attendees should understand and support AIChE's Code of Ethics.
2. Volunteers and meeting attendees should contribute to a collegial, inclusive, positive and respectful environment for fellow volunteers and attendees, and other stakeholders, including AIChE staff.
3. Volunteers and meeting attendees should avoid making inappropriate statements or taking inappropriate action based on race, gender, age, religion, ethnicity, nationality, sexual orientation, gender expression, gender identity, marital status, political affiliation, presence of disabilities, or educational background. We should show consistent respect for colleagues, regardless of discipline, employment status, and organizations for which they work, whether industry, academia, or government.
4. Disruptive, harassing or other inappropriate statements or behavior toward other volunteers, members, and other stakeholders, in-

cluding AIChE staff, is unacceptable.

5. Volunteers and meeting attendees should obey all applicable laws and regulations of the relevant governmental authorities while volunteering or attending meetings. Volunteers and meeting attendees taking part in any AIChE event, including the ChemECar Competition™, should also comply with all applicable safety guidelines.

Violations of this conduct policy should be reported promptly to the AIChE President or Executive Director.

[Read AIChE's Code of Ethics](#)

AICHE CHICAGO SECTION

AICHE Chicago Section
13964 Doral Lane
Homer Glen, IL 60491
aichechicago@gmail.com

<https://www.facebook.com/AICHEChicagoSection>

<https://www.linkedin.com/groups/4538581>

<https://www.aiche.org/community/sites/local-sections/chicago>

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Chair Elect	<i>McKay Rytting</i>
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	<i>Robert Tsai</i>

We want you for AICHE-Chicago!

AICHE is committed to promoting a fair, just, and equitable profession and society. AICHE believes that all who wish to be a part of the chemical engineering community should have equal opportunity to pursue and achieve success. We work toward a better future for all —through our technical expertise; through how we inspire, engage, retain, and advance future talent; and through how we treat each other within and beyond the profession.

[AICHE Equity, Diversity, and Inclusion Statement | AICHE](#)

We need your help!

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aichechicago@gmail.com

<http://www.aiche.org/community/sites/local-sections/chicago/announcements/volunteerism>



Submitting Articles to AICHE Columns

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial.

Categorization of announcements is at the sole discretion of the Chicago AICHE Board of Directors. Chicago AICHE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

Please submit your material to aichechicago@gmail.com with "newsletter article" as a subject line.

