AIChE Chicago

February 2025 Newsletter

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AICHE Chicago February Meeting & MxD Factory Tour

Practical Definitions and Applications of Digital Manufacturing



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Tony Del Sesto

Senior Tech Fellow at Manufacturing x Digital (MxD)

Date: 25 February 2025

Tour Location: MxD (Tour at 5:30 PM)

1415 N. Cherry Ave., Chicago, IL 60642

Meeting Location: Vinci Restaurant

1732 N. Halstead St. Chicago, IL 60614

Cost: \$55 Non-Member

\$45 Member* / Retired* \$30 Unemployed*

\$10 Student

Registration and Information: Cvent

Please note the registration deadline for the tour is February 21.

^{*}Must be AIChE Global and Chicago Section Member to be eligible for rate

Chair's Corner

Hello AIChE Chicago Section,

I hope everyone is staying safe and warm as snow has finally arrived in Chicago. Even though the groundhog predicted 6 more weeks of winter, we have two excellent indoor opportunities coming up on February 25th and March 26th. Our February monthly meeting will feature a tour of MxD's digital manufacturing and cybersecurity institute on Goose Island, followed by a technical talk by MxD Senior Tech Fellow Tony Del Sesto. Then in March, we have a tour lined up at Numat Technologies in Humboldt Park. I'm very much looking forward to both of these events that the Centennial Planning Committee has arranged and expect to



continue the trend of high attendance that we've had so far during our 100th programming year.

I would like to thank our friends at the ACS Chicago Section for hosting the joint January meeting last month. Dr. Omar Farha, who coincidentally is one of the founders of Numat, gave a very engaging talk on metal organic frameworks. The January joint meeting was a nice preview for the upcoming Numat tour, and we will be extending an invitation to the local ACS chapter members to join us for the March meeting.

The <u>call for abstracts</u> for the 2025 Midwest Regional Conference on April 29 at UIC is open! Make sure you submit by February 28th. I want to give a big shout out to Jarad Champion, Jason Wu, and Gengnan Li for their hard work in putting together this event and am looking forward to another successful conference.

Thank you, Local Section members for your ongoing participation, engagement, and enthusiasm. As always, I am available at chair@aichechicago.org.

Take care,

Matt Walters

AIChE Chicago Section Chair 2024-25

February Meeting Information

Biography:

Tony Del Sesto is the Senior Tech Fellow for MxD, where innovative manufacturers forge their futures. Tony serves as a technical consultant to MxD members and subject matter expert for MxD project, factory, and engineering teams. Tony's focus is how to demystify Industry 4.0 technologies and turn them into practical manufacturing applications for American manufacturers.

He has more than 30 years of concept-to-customer experience in product development, supply chain, and manufacturing operations. Tony has hands-on experience in over 200 factories in 15 countries and lived abroad in Asia for eight years where he led operations teams throughout the region.



Tony holds degrees in mechanical engineering and international business. He is a Stanford Certified Project Manager and a Certified Lean Six Sigma Black Belt.

Registration and Information: https://cvent.me/A7NrLW

Tour and Meeting Agenda:

5:00 - 5:30 PM: Check In

5:30 - 6:30 PM: MxD Factory Floor Tour

6:30 – 7:00 PM: Drive to restaurant and check in

7:00 - 7:40 PM: Dinner

7:40 – 7:50 PM: Section Announcements 7:50 – 8:50 PM: Technical Presentation

AIChE Chicago Centennial Celebration

The Chicago Section was the first section in AIChE, and this 2024-2025 programming year will mark its 100-year anniversary! Please view <u>our website</u> to read more about our past.

The centennial will be recognized throughout the year with special monthly meeting arrangements and of course a big party to celebrate so stay tuned! The newsletter will also feature guest articles and other snippets of history which we hope you will enjoy.

Centennial Time Capsule – Top Ten list from 2005

Janet Werner found this humorous Top Ten list from the January 2005 newsletter. The editor, Don Nell, liked to sneak jokes into the newsletter. This list is assumed to be a spoof of David Letterman's lists and is believed to have been written by Don himself.

Top Ten Reasons to Attend Chicago Section AIChE Meetings

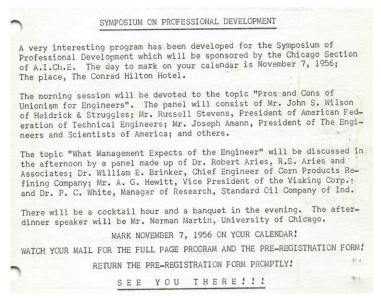
- 10. Great place to meet people, make friends, and swap pilfered office supplies.
- 9. Get to score some really great "developmental stuff" from the people who work at the pharmaceutical research companies.
- 8. Oh, those wacky accordion jam sessions that take place at the end of the meetings.
- 7. One lucky winner gets to tickle Dennis O'Brien relentlessly with a feather duster each month.
- 6. Lightly touched by a little seasoned oak, with a titillating bouquet, this splendidly flavorsome sauvignon....oops, sorry. That's from the American Institute of Pretentious-Sounding Wine Tasters. Never mind.
- 5. Hey, someone at the bar has to break up those boring discussions about sports, romance, and music with some fascinating conversations about fugacity and noncatalytic heterogenous reaction systems.
- 4. The Board of Directors goes to great lengths to ensure no meetings are scheduled on the same nights as the "Joanie Love Chachi" rerun marathons.
- 3. It's the only place where you can give the answer: "the glass in neither half full nor half empty but half full of water and half full of air!" and not expect to get slapped upside the head with a frozen trout.
- 2. If you ask nicely, section chair Becky Weitting will use her Jedi mind tricks on the wait staff and get some extra maraschino cherries for your drink.
- 1. The anticipation knowing that at any one of these meetings, the mothership is gonna land and release all the past chairs who seemingly have fallen off the face of the earth.

While wacky accordion jam sessions might be out of style and the feather duster was lost years ago, we hope that this lookback put a smile on your face – the 2025 Newsletter Team

AIChE Chicago History - Midwest Regional Conference

by Janet Werner

In 2025 the AIChE Chicago Section will be hosting the 17th AIChE Midwest Regional Conference. The history of this conference goes beyond 17 years and actually has roots that go as far back as 70 years.

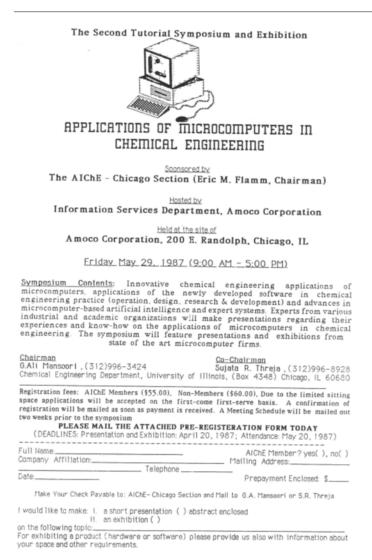


In 1954, Bill Alford (Membership Committee Chair, 1953-1954) suggested that for the AlChE Chicago Section's 30th anniversary in 1955, the section should host a "One-Day Symposium." One-Day Symposiums were hosted by several different AlChE local sections during this time period, and hosting one in Chicago would have been a worthy way to celebrate a milestone anniversary for the section. Although not a 30th anniversary celebration, the first Chicago Section One-Day Symposium occurred in November 1956, and was attended by 171 individuals.

Snip from the October 1956 Newsletter advertising the first AIChE Chicago Symposium

The next One-Day Symposium was held a few years later in February 1960 and was attended by 305 people. AIChE Chicago held One-Day Symposiums annually from 1960 until 1974, when the section decided to put them on hold due to declining attendance. These annual One-Day Symposiums had a typical structure of two tracks of speakers each with a topical theme and a dinner lecture on a general topic of interest. The dinner lecture served as the Chicago Section monthly meeting, similar to the Midwest Regional Conference structure today. There were variations in the conference agenda through those years as the committee tried different programming structures, sometimes only holding tracks in the afternoon or sometimes having a luncheon instead of dinner. Most of the speakers during this time were industry speakers as opposed to a high percentage of academic speakers at our current Midwest Regional Conference. These symposiums were generally held at hotel conference rooms/conference centers.

In 1979, the section held a series of 11 evening lectures that was advertised as a symposium. In 1983, the section held a symposium in conjunction with a celebration of national AIChE's 75th anniversary. Between 1985-1995, a total of at least six symposiums were held. Local section leaders recall some additional symposiums in the late 1990s, but unfortunately we have lost records from any symposiums that may have been held during this time.



Advertisement for the 1987 Symposium on Microcomputers from May 1987 newsletter

In the early 2000s, a Symposium was being planned on a more regular basis, often planned in conjunction with another professional organization or division of AIChE. There are records of symposiums with some type of affiliation with AIChE Chicago in March 2001, March 2002, June 2004, and April 2005.

There were annual symposiums or conferences in the fall at either UIC or IIT starting October 2006 until 2010. At this point, the symposiums had expanded to being 2 days of programming. The symposium switched to being called a regional meeting in 2008, making it the first AIChE Midwest Regional Conference. This change was done at the request of AIChE national, in an attempt to give members a more local option to participate in a conference and reduce travel costs. This name change also was intended to increase participation from outside of Chicago. Interestingly, this was similar to an older meeting concept that AIChE national used to use. For a period of time (the exact time frames are not clear, but around 1945 to 1970s), AIChE national held multiple "Regional" meetings instead of one national Spring Meeting to give members more local conference options.

In the earlier versions of the AIChE Chicago Symposium, it was common for the symposiums to be held as a seminar for professional development on a specific topic, as seen in the advertisement for the 1987

Symposium shown above on the topic of Microcomputers. In the mid to late 2000s, it was common for the Symposium/Midwest Regional Conference to have a theme as opposed to a specific technical topic to accommodate multiple sessions and programming tracks, as seen in the cover of the program book from the Midwest Regional Conference. The concept of a theme was abandoned starting in the 2014 Midwest Regional Conference to have more consistent branding of the conference and to reduce volunteer efforts on logo and document creation. The AIChE Midwest Regional Conference logo was designed by Janet Werner. The selection of states included in the logo was done solely for aesthetics and did not represent any definition set by national AIChE, but the Midwest Regional Conference Committee readily approved the logo and the somewhat default definition of target states for the conference that resulted from that approval.







March 10-11, 2014 University of Illinois at Chicago

Left: Image from the cover of the program book of the 2011 AIChE Midwest Regional Conference, featuring a conference theme.

Right: Image from the cover of the program book of the 2014 AIChE Midwest Regional Conference, featuring a version of the new Midwest Regional Conference logo.

In 2013, the conference was moved to the spring instead of the fall. This was initially done solely based on facility availability, but the move to the spring was beneficial for getting university undergraduate student involvement. The conference/symposium has been held at either UIC or IIT since 2005, and student volunteers have been integral to conference operation, both for the professional conference and the High School Outreach portion of the conference.

The 17th AIChE Midwest Regional Conference is being planned as a one day conference. Paring the programming down to one day this year was done for budgeting purposes and as a test adjustment for post-COVID attendance trends.

As we continue in our planning for the 17th AIChE Midwest Regional Conference, we are continuing to uphold a tradition of fostering professional development and continuing research in chemical engineering. We are looking forward to the conference and encourage you to contribute as well! Whether it be as a volunteer, attendee, organizer, or presenter, we hope you will help us continue this tradition with roots deep in our section history.

Voluntary Member Donation for the Centennial Year

Dear Member:

This year the AIChE Chicago Section, will be celebrating its Centennial Year. This year marks 100 years of commitment, dedication, and camaraderie among chemical engineers in our region and beyond.

Throughout the years, our section has tirelessly worked to serve as a beacon for chemical engineers, facilitate a vibrant community that fosters professional development, keep members informed of the latest technological advancements, address the evolving challenges within our industry, and encourage students to enter into the fields of science and engineering. These goals are accomplished through our Section's monthly meetings, a newsletter, a web page (www.AIChE.org/Chicago), high school science events, our annual student poster competition, and the AIChE Midwest Regional Conference.

Through the years of changes you, as members, have provided invaluable voluntary support to the section in developing and offering these activities.

On the occasion of our 100th year, we are offering you a unique opportunity to strengthen the Section to carry on its multifaceted activities by making a personal donation. Your donation will help the Section to continue its outstanding activities. Contributions may be done on-line using the following link:

https://cvent.me/yG5oPw

Contributors will be recognized in a later edition of the newsletter.

This Voluntary Member Donation for the Centennial Year is different from a nominal sponsorship by companies for individual programs and separate from the cost for the one-day Centennial Celebration event on May 10th, 2025.

Your generous support for the section, as well as past and continued contribution through your presence and participation all these years is greatly appreciated.

Respectfully,

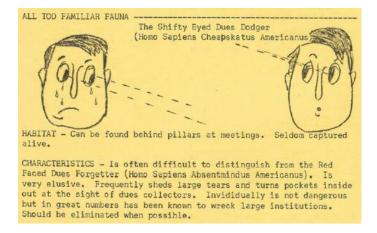
Chicago Section Officer Board

Local Section Dues Notice

AIChE national memberships run on a calendar year basis. If you haven't already paid your national membership dues for 2025, please help support us by including Chicago Local Section dues in that national membership payment – our local section dues are only \$20.

We really appreciate your financial support, especially during this Centennial Anniversary year. Without local section dues, we would not be able to hold monthly meetings, plan the Midwest Regional Conference, support local chemical engineering student chapters, or even send out this newsletter by email!

In honor of the Centennial of the AIChE Chicago Section, here is a dues reminder from an old newsletter. Thank you for your support!



Dues Notice from December 1961

Pay Local Section Dues by following the links on our website: Join the Chicago Local Section | AIChE

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, 2025.

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.

To nominate, please contact: **Jeffrey Zalc – bp Solutions, P&O**

Phone: 630.881.5478 Email: jeffrey.zalc@bp.com

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



February is Black 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 paying tribute to the generations of African Americans who struggled with adversity to achieve full citizenship in American society. Read More ».

February is Black History Month - Connection with ChE

Charles Pierce: A Name Every Chemical Engineer Should Know



Originally posted on AIChE ChEnected on Feb 28, 2021

During the formative era of the profession, and years before the establishment of AIChE (1908), only a handful of universities offered a formal course of study in the new field of chemical engineering. Illinois Institute of Technology (IIT) was one of them, and in 1901 the school granted its very first chemical engineering degree to a man named Charles Warner Pierce.

Charles Pierce (1876-1947) was not only one of the first to receive a chemical engineering degree anywhere, but he was also the first African American at any institution to receive a degree in the subject.

Piece's place in the profession's history had faded from memory for a full century until IIT's chemical engineering department began rediscovering its heritage in the early 2000s in preparation for its centennial. That's when the university records revealed the name Charles Pierce as the first holder of the school's chemical engineering degree.

In 2007, IIT's Chemical and Bioengineering Department honored Pierce with its Distinguished Alumni Award at a ceremony attended by some of Pierce's descendants.

January Meeting Photos













Early Career Community (ECC) / Young Professionals Committee (YPC) Chicago Section

AIChE's Early Career Community (ECC) / Young Professionals Committee (YPC) Chicago Section was created to start and maintain young professionals' involvement in AIChE after graduation and to ensure that students retain their membership through their transition into the work force.

We enthusiastically welcome all people with a degree in Chemical Engineering, including those currently working in industry and academia, recent graduates, and those pursuing other paths. We also welcome current students, both undergraduate and graduate students to our events.

The Chicago YPC exists as a subset of the AIChE Chicago Section.

Our goal is to provide technical, career, and networking opportunities to young Chemical Engineering professionals in the Chicagoland area. To accomplish this, we seek to provide a variety of technical and social activities, provide outreach and volunteering opportunities, and to create programming that will appeal to ChemE's under 35.

General ECC Website: https://www.aiche.org/community/sites/committees/early-career
ECC/YPC Chicago Website:

https://www.aiche.org/community/sites/local-sections/Chicago/young-professionals

Email us at yp.aichechicago@gmail.com

Connect with us on Facebook! Search for 'YPC Chicago'

Join our mailing list! Find our Google group under 'ypcchicago'

Join Our GroupMe and become a part of the Chicago Chemical Engineering Young Professional Community: https://groupme.com/join_group/99685952/GrFycymv

2025 AIChE Chicago Meeting Schedule and Speakers

Month	Date	Speaker	Affiliation	Topic
March	26th	William Morris	Numat	Metal Organic Frameworks
April	29 th	TBD	TBD	TBD
May	10 th	TBD	TBD	AIChE Chicago Centennial Celebration

Upcoming AIChE Conferences, Meetings, and Webinars

AIChE Conferences				
Feb 20-22, 2025	International Congress on Sustainability Science & Engineering (ICOSSE '25), University of Auckland, Auckland, NZ			
Apr 6-10, 2025	2025 Spring Meeting and 21st Global Congress on Process Safety, Hilton Anatole, Dallas, TX, USA			
April 9-11, 2025	9 th International Conference on Accelerating Biopharmaceutical Development (AccBio 2025) Hilton Garden Inn Carlsbad Beach, Carlsbad, CA, USA			
April 29, 2025	17th AIChE Midwest Regional Conference, University of Illinois Chicago, Chicago, IL, USA			
May 5-8, 2025	2025 Offshore Technology Conference, NRG Park, Houston, TX, USA			

Chicago ACS Meetings				
March 13, 2025	ACS Chicago March 2025 Meeting – Axion Labs			

Connect with members and 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.



National Engineers Week 2025

National Engineers Week is February 16th through 22nd. The theme for this year is *Design your Future*. The theme is both a call to action and a celebration of the unlimited possibilities that engineering can unlock. It's an invitation to dream boldly, innovate relentlessly, and create a future shaped by our collective ingenuity.

See more at <u>Discover Engineering</u>.





If you are interested in presenting a poster or paper, being a session chair or co-chair, or getting involved and volunteering then please send an email to

Jarad Champion (conference chair): jaradchampion@aichechicago.org

https://www.aiche.org/conferences/midwest-regional-conference/2025

https://aiche.confex.com/aiche/mrc17/cfp.cgi

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 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/venues.
- Logistics arrange catering and venues
- Newsletter Editor prepare and publish ten monthly newsletters
- Newsletter Contributors 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 awards and scholarships
- Midwest Regional Conference various roles with programming, logistics, website work, advertising, sponsorships, 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 at aichechicago@gmail.com

Young Professionals Committee (YPC) Chicago Section

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Website: https://www.aiche.org/community/sites/local-sections/Chicago/young-professionals

Email us at yp.aichechicago@gmail.com

Connect with us on Facebook! Search for 'YPC Chicago'

Join our mailing list! Find our Google group under 'ypcchicago'

Why renew your AIChE Membership?

Renew your membership now to keep learning and growing.

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 which can offer Continuing Education Units and PDHs.
- Access to CareerEngineer a comprehensive job site tailored to chemical engineers
- Acess to the AIChE eLibrary a wealth of information from Knovel Life Sciences and the McGraw-Hill AccessEngineering Library collections

View more benefits here!

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 pro-vide 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, including 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.

AIChE Chicago Section

AIChE Chicago Section 2501 Chatham Rd Ste N Springfield, IL 62704

aichechicago@gmail.com

 $\underline{\text{https://www.facebook.com/AIChEChicagoSection}}$

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

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

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Awards Committee	Azita Ahmadzadeh	
Cvent Manager	Rishabh Jain	
Newsletter Editors	Ethan Caesar	
Newsictici Editors	Robert Tsai	

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

Submitting Articles to AIChE Columns

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to a fee. News stories, editorials, technical, or career related non-commercial contributions are always welcome for no charge. We consider job postings, announcements of for-free training courses, expositions, and conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AlChE Board of Directors. The AlChE Chicago Section 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.

