

**American Institute of Chemical Engineers,
Cleveland Section**

Join our LinkedIn Group called:
[AIChE Cleveland Section](#) and let colleagues know it is available

For more information on CLE AIChE events, visit our Web Page at:

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



YPs & All, Social Event, Friday September 6, 2024, 5:00 PM

German Central Foundation (7863 York Road, Parma, OH 44130)

AIChE Membership Not Required to attend any meetings.

Oktoberfest at German Central in Parma



Outdoor Glockenspiel Songs



Indoor Traditional
Dancing with Bands

Outdoor Pavilion Dancing
with Bands



Gemütlichkeit:

Join the fun at the Oktoberfest here in Parma, Ohio on Friday September 6th 2024. Observe the colorful heritage, culture, music, and dances of the German people. Our own unique version of this legendary event offers something for the whole family, and for both the young and the young-at-heart.

Oktoberfest actually began as a royal wedding in Munich, Germany on October 12, 1810. In the years following the wedding, all the appreciative Bavarians in and around Munich held anniversary celebrations until, about ten years later, the celebrations turned into an annual Oktoberfest.

German Central's Oktoberfest, which was first held in 1999, provides a golden opportunity to get together with old friends and form new acquaintances. Enjoy the delicious food, flowing beer, and Gemütlichkeit.

Meeting Location:

7863 York Road
Parma, OH 44130

German Central Farm (look for HB Red T-Shirt, below)

5:00 – 6:00 pm: Social Gathering & Flag Raising

6:00 – 7:00 pm: Dinner

Menu:

7:00 – ??? pm: Dessert - Dancing?

<https://germancentralfoundation.com/oktoberfest>



Enter: ~ \$5 Admission per person

Menu: German Beer ~ \$4,
German Brats on Roll ~ \$6,
German Schnitzel Dinner ~ \$14
YP's Special Menu !



Look for HB Red T-Shirt. Meet at picnic tables East of Vienne Café Building

RSVP Recommended for table seating with Joseph Yurko and AIChE at: yurkojoe5@gmail.com

ADVERTISEMENT SECTION
 HALF PAGE FORMAT COST = \$ 50.00
 (FULL PAGE FORMAT COST = \$ 100.00)
 CONTENTS AT DISCRESSION OF ADVERTISER

Other Notable Events going on in Parma: The Ukrainian Village Parade on Saturday, August 26, 2024 at 11:00 a.m.

This will be the commemoration of the 33rd anniversary of Ukraine's Independence Day – August 24th – we also recognize and acknowledge the unimaginable suffering of the people in Ukraine as they fight to ensure that their freedom is not taken away from them now and for future generations. As Americans we cherish our freedoms and the price we paid for them with our sacrifices. May the Ukrainian people achieve their goals soon and reclaim the freedom they so richly deserve.



St. Vladimir Ukrainian Orthodox Cathedral, 5916 State Road, Parma, OH 44134



OMARA Engineering PC has provided Engineering Services to the process, industrial gas, and air separation industries for over 3 decades and is seeking Engineers with the following experience:

- Industrial Gas Product and Project Development
- Process Technology
- Start-up's
- Design
- Construction and Estimating
- Project Managers
- Machinery



VOTING INSTRUCTIONS

To enable members to make informed selections for the AIChE election, the candidates for President-Elect (*below*), Secretary (*page 2*), and Director (*pages 2-4*) have provided an overview of their experience, as well as plans for future programs and direction of the Institute. These messages, listed in random order, are in the candidates' own words.

You may vote for a maximum of one (1) candidate for President-Elect, one (1) candidate for Secretary, and four (4) candidates for Director. Election results will be tallied on October 1st and announced on October 28th at AIChE's Annual Meeting in San Diego.

Members have the option of utilizing an electronic proxy instead of a paper ballot. If you would rather use an electronic proxy instead of the enclosed paper ballot, please go to the proxy web site on or after August 26th:

AIChE.SocietyElection.com

Your membership number will serve as your personal identification number. The same rigorous standards guarding your privacy will be applied to both paper ballots and electronic proxies.

To use the enclosed paper ballot, please follow the instructions on the right. To be valid, your ballot or electronic proxy must be received by September 30, 2024.

1. The paper election ballot for the 2025 Board of Directors is included separately. On the ballot, fill the boxes opposite the candidates of your choice. Be sure to use a pen with blue or black ink or a dark pencil. The scanner that "reads" the ballots will not pick up other ink colors.
 2. Mark boxes for the candidates you choose like this:
- Not like this:
3. Seal the marked ballot in the return envelope provided and write in your return address. Do not erase or cross out your name or membership number from the back of the envelope. If they are incorrect, please write in the correct information. This information is used for election control.
 4. Ballots must be received by **September 30, 2024**. Please be sure to attach the proper postage.
 5. Please do not enclose dues payments, address changes, or any other correspondence with your ballot—these items should be mailed directly to the Institute's Member Service Center (PO Box 4429, Danbury, CT 06813-4429).

NOMINATED AS PRESIDENT-ELECT FOR 2025 (and to succeed to the presidency in 2026)

Anne O'Neal

Anne O'Neal is Manager of Process Safety Culture and Competency at Chevron and an AIChE Board Member and Fellow. Her 42-year career includes several other senior positions in process safety and health, environment and safety. She also founded Chevron's early technical career development program after assignments in process engineering, operations, maintenance, strategic planning, and creating Chevron's first management system approach to process safety.



She earned her BS in chemical engineering from the Univ. of California, Davis, and was a founding member of their Center for Women in Engineering and a ChE Departmental Advisory Board member.

An early participant in AIChE's Center for Chemical Process Safety (CCPS), and a CCPS Advisory Board member since 2005, she and colleagues pioneered Process Safety Faculty Workshops which have reached 500+ globally. She also co-led the 2005 API/IECA sustainability reporting guidelines development.

Statement: Since 1908, AIChE has provided something unique to each of us — the chance to grow as a student leader, a platform for technical advancement, a connection point for the educators of tomorrow, a home for institutional collaboration on the advancement of technology, and a cohort of talented colleagues. As President, I will strive to ensure a robust Institute serving our evolving needs as technology advances.

I remain a champion of CCPS's essential work in saving lives, protecting the environment, educating engineers, and contributing to thriving economies through the prevention of process safety incidents.

As AIChE's influence expands through CCPS, the RAPID Manufacturing Institute, the Society for Biological Engineering (SBE), and the Center for Hydrogen Safety (CHS), we must sustainably address grand challenges at scale. We serve those challenges best with the efficiency, effectiveness, and clear roles and responsibilities brought through financial health, good governance and robust policy.

I've seen first-hand the spark lit by great teaching and the vital role that ethics and risk awareness play in undergraduate engineering education. The AIChE's Foundation — through the Undergraduate Process Safety Learning Initiative — has played a critical enabling role.

While we tackle society's grand challenges, we can't ignore the barriers and headwinds society presents to encouraging and enabling engineers and scientists from all walks of life to contribute and to thrive. IDEAL is essential for our Institute in order to bring the world's best minds to solve her most challenging problems. My mother encouraged me to combine my knack for chemistry, math, and physics into ChE, an opportunity not available in her day. AIChE must play a similarly active role in transforming headwinds into tailwinds for the benefit of all.

I'm honored by this nomination and the chance to continuing to serve.

Gavin Towler

Gavin Towler is Honeywell's Chief Scientist for Sustainability. Before that he held several R&D roles including Chief Technology Officer of Honeywell UOP. He has worked in process design and clean fuels technologies for 32 years, has 77 patents, co-authored a textbook on process design, and is a Chartered Engineer, AIChE Fellow, and member of the National Academy of Engineering. Gavin has a BA and MEng from Cambridge and a PhD from the University of California, Berkeley, all in chemical engineering.



An AIChE member for 35 years, Gavin has been active in programming and leadership of the Computing and Systems Technology (CAST), Process Development, Fuels and Petrochemicals, and Management divisions. He also served on the Board of Directors (2008–10), Chemical Engineering Technology Operating Council (CTOC), Membership Committee, Foundation Board, CCPS Board, Industrial Advisory Board, and CEP editorial advisory board. He is a trustee of CACHE Corporation and helps teach design at the National University of Singapore.

Statement: When I first attended an AIChE meeting, I was amazed and inspired by all the problems chemical engineers were working on and the curiosity, passion, and engagement everyone had. I loved it so much that I've been coming back ever since.

We have always been a diverse and interdisciplinary profession, and AIChE mirrors that and gives us opportunities to come together to learn, share, and support each other, make new friends, and apply our skills to solving global challenges. If elected, I plan to continue the great work AIChE has been doing in expanding the diversity and inclusivity of the profession through programs such as the Future of STEM Scholars Initiative (FOSSI) and IDEAL, and creating more value and opportunities for members through initiatives like RAPID and the Institute for Learning and Innovation.

I came to the USA for grad school and was fortunate that I could make my career here. For decades, the U.S. economy and our world-class universities made the USA a magnet for talent. That's an advantage worth keeping, but recently the H-1B visa process has become overwhelmed by applications for IT workers, making it ever harder for overseas students to find work here after graduation. If elected as AIChE President, I want to engage with other professional societies and the National Academies to build a consensus for revising visa policies to make it easier to attract top talent to our schools and offer graduates a better chance of contributing their skills and diverse perspectives to the U.S. economy.

I would love to hear your ideas and concerns and you can contact me at

NOMINATED AS SECRETARY FOR THREE YEARS BEGINNING IN 2025

David J. Dixon

David J. Dixon holds the Robert L. Sandvig Professorship in the Karen M. Swindler Department of Chemical and Biological Engineering at the South Dakota School of Mines and Technology (SDSMT). He is a chemical engineer with BS/MS degrees from SDSMT and a PhD from the University of Texas at Austin. At SDSMT, he has served as: Principal Investigator for an NSF-IUCRC BioEnergy Center; department chair, starting up a chemical and biomolecular engineering PhD program; a Fulbright Scholar, developing university-level partnerships in Germany, Mongolia, and Peru; and an instructor offering the department's first stand-alone course on process safety. David received SDSMT's 2019 Presidential Outstanding Professor Award. His research has been funded by the U.S. Department of Defense, National Science Foundation, Environmental Protection Agency, Small Business Innovative Research, and industry — in diverse areas such as protective membranes, water remediation, and applied solar energy. He has industrial process engineering experience at Dow Corning. Currently, he serves as an AIChE Board Director and is an Institute Fellow. He remains active in the Student Chapters (Chair, 2006–2007), the Career and Education Operating Council (CEOC) membership committee, and on AIChE's Chem-E-Car Competition organizing committee, where he has been involved since its inception. Dixon served as an AIChE Student Chapter advisor, a Group 4 (Education) National Program Committee chair (2004–2005), and chaired CEOC in 2020.



Statement: Through my past experiences in academia, in industry, as well as in my leadership roles within AIChE, I've learned of the many diverse areas in which our organization is involved. As an Institute, we are well positioned to help promote and contribute to strategies that can solve many of our world's challenges. If elected, I want to help AIChE continue "Doing a World of Good," through:

- strengthening its position as a global leader of chemical engineering by supporting and helping to develop AIChE's many diverse communities;
- continuing to promote enriching opportunities for young professionals and youth from all walks of life to achieve their dreams, such as the Future of STEM Scholars Initiative, K-12 outreach, and local sections; and
- helping chemical engineers to be recognized as a community that has the expertise and knowledge to address some of the world's great challenges, such as available water, sustainability, process safety, and clean energy.

I look forward to the opportunity to serve as your Institute Secretary and ask for your support. Please feel free to contact me at david.dixon@sdsmt.edu.

Julianne Holloway

Julianne Holloway is an associate professor of chemical engineering at Arizona State University (ASU). Prior to ASU, Julianne completed her BS and PhD in chemical engineering at Drexel University and her postdoctoral training at the University of Pennsylvania. She has been active in AIChE since 2006, including as the "Celebrating 20 Years of Women in Chemical Engineering" Symposium Chair, Materials Engineering and Science Division Director, and Biomaterials Area Chair. In 2020, she was elected to AIChE's Board of Directors. Her significant contributions to AIChE were recognized by the Herb Epstein Award for Technical Programming, AIChE's 35 Under 35 Award, and the John C. Chen Young Professional Leadership Scholarship. Julianne's research focuses on the development of biomaterials for tissue engineering applications. Her expertise in biomaterials has been recognized through numerous awards, including Associate Scientific Advisor for Science Translational Medicine, Emerging Scholar for the Journal of Biomedical Materials Research, and the MTF Biologics Junior Investigator Award.



Statement: My first involvement with AIChE was as an undergraduate student, where I served as the Student Chapter President. Since then, AIChE has played a critical role in my career at every stage. If elected, I will use my experiences within chemical engineering to advance AIChE's strategic plan.

- I will commit to strengthening and expanding AIChE's global reach, positioning the chemical engineering community to address and solve today's grand challenges. Towards this goal, I will work with AIChE to highlight the critical role of chemical engineers in advancing technology related to sustainability, manufacturing, and health. By augmenting our global profile, we will inspire future chemical engineers, enhance public support, and strengthen our profession.
- To address future challenges, we will need to continually adapt to meet the needs of our members and the broader society. I will seek to strengthen AIChE's role in developing new educational tools to ensure members' success and to promote lifelong learning. I will work to enhance AIChE's role as a hub to share new scientific ideas and to catalyze the development of innovative technologies, especially related to data science and artificial intelligence.
- The chemical engineering profession is stronger when we work together. I will work with AIChE to foster an inclusive community unified in "doing a world of good." Additionally, I will encourage AIChE to forge new connections, as well as strengthen existing relationships between academia, industry, and governmental agencies.

I welcome your ideas on how AIChE can shape the future of chemical engineering at julianne.holloway@asu.edu.

NOMINATED AS DIRECTOR FOR THREE YEARS BEGINNING IN 2025

Robert Y. Ofoli

Robert Y. Ofoli is an AIChE Fellow. He holds a PhD in chemical engineering (Carnegie Mellon University), a PhD in agricultural engineering (Michigan State University), and a BS in agricultural mechanization (University of Maine). He is an associate professor of chemical engineering, student chapter advisor, and Faculty Excellence Advocate for the College of Engineering at Michigan State University, with active research in plastics upcycling. His service to AIChE includes the Student Chapters Committee (Chair in 2006), Chem-E-Car Committee, Chem-E-Car Rules Committee, and member of the team that successfully revamped Chem-E-Car operations safety as requested by the AIChE Board. Robert served three terms on the Career and Education Operating Council (CEOC; 2017 Chair). He was also a member of the American Chemical Society (ACS) Joint Board-Council Committee on Publications, and a Treasurer of the ACS Colloid and Surface Chemistry Division, during which he became familiar with organizational tax-exempt 501(c)(3) regulations.



Statement: AIChE is a global organization with diverse cultures, languages, races, ethnicities, and genders. Its leadership requires a diverse set of approaches — for example, thinking "mosaic," not "melting pot;" building from the bottom up, not top down; focusing on core values (ethics, trust, transparency, professionalism); and cognizance of implicit bias.

The necessity for globally-sensitive programming is reflected in 2024 AIChE President Alan Nelson's support for several AIChE initiatives and programs: IDEAL (inclusion, diversity, equity, anti-racism, and learning); RAPID (Rapid Advancement in Process Intensification Deployment); Explorer AIChE membership for non-traditional chemical engineers; FOSSI (Future of STEM Scholars Initiative) scholarships for diversification; and the "Bee a ChemE" campaign for middle school students. Achieving these diverse goals requires dedicated efforts to broaden our global impact. When I think of the difficulty of doing this successfully, I remember Billy Jean King's assurance that "pressure is a privilege." I embrace the pressure, with the knowledge that successful solutions are not a one-person job; they require collaborating with colleagues to develop measurable metrics to assess real progress.

My goal is to use the principles of servant leadership that I depend on for complicated issues. I am committed to advancing AIChE's strategic plans by:

- enabling the success of stakeholders in chemical engineering and related professions;
- supporting IDEAL, FOSSI, and RAPID, and working to create other essential communities;
- working with Directors and Fellows to educate our national political leaders on the true value of DEI in academic institutions;
- promoting lifelong learning across the profession; and

David Klanecky

Recognized for his impressive 30+ year career in R&D, operations, and commercial and strategic leadership roles in North America, Europe, and Asia, David Klanecky brings this experience to his role as the CEO and President of Cirba Solutions, the most comprehensive and trusted battery materials and management provider. Leading the strategic growth of Cirba Solutions, Klanecky led a capital raise, securing roughly \$300 million. Collaborating with the private and public sectors, David is focused on expanding operational and technology capabilities to support the growing needs of the circular battery supply chain.



David currently sits on the board of AIChE's Institute for Sustainability Board; the External Advisory Committee for the Advanced Energy Technologies Directorate of the Argonne National Laboratory; is a Board Director for NanoGraf; and is president-elect of NAATBatt International.

Statement: As a member of AIChE for more than 30 years, I currently sit on the managing board of the organization's Institute for Sustainability. It's an honor to be considered for the Institute Director role, to help further the success of critical advancements in communities through the chemical engineering profession. I want to use this platform to encourage current and future generations to play a more active role in the evolving scientific disciplines arising in the face of today's challenges.

As a society, we are undergoing a multitude of transformational changes, including electrification and the creation of sustainable supply chains. These are difficult problems to solve and cannot be accomplished in a vacuum. We need the versatile skillsets and expertise possessed by chemical engineers to be invited to the table, as they are critical collaborators and elite scientific minds that are part of providing solutions for these large societal issues.

With industries moving towards automation, we must face this challenge head-on to ensure that chemical engineers, and those entering the field, remain relevant during this transformation, and emerge at the forefront. This evolution includes enhancing academic curriculums by ensuring that students have access to real-world and hands-on experiences to promote lifelong learning, including adaptable and flexible learning styles to meet the future needs that this profession will demand.

During my 10 years spent overseas, I led organizations of differing cultural backgrounds, reinforcing the importance to me of having a diverse workforce to address the creation and strengthening of new initiatives to solve global challenges.

As Director of AIChE, I will use my leadership experience and passion to ensure

Jerry J. Forest

Jerry Forest brings four decades of experience to his candidacy for the AIChE Board of Directors. As Senior Director of Process Safety at Celanese, he achieved a 90% reduction in process safety events over 13 years. Currently serving as a process safety improvement consultant at Jerry Forest, LLC, and as adjunct lecturer in chemical engineering process safety at Louisiana State University (LSU), Jerry's expertise is widely recognized. He holds a BS in chemical engineering and an MBA from LSU, and a master's degree in pastoral studies from Loyola.



Jerry prioritizes data-driven strategic planning, intentional competency development, the fostering of a robust process safety culture, and driving excellence in conduct of operations exemplified by the creation of the acclaimed "Walk the Line" program. Certified as a Process Safety Professional and emeritus member of AIChE's Center for Chemical Process Safety (CCPS), and recognized as a Fellow of both CCPS and AIChE, Jerry Forest is uniquely positioned to contribute invaluable expertise to the AIChE Board.

Statement: Passionate about improving process safety across organizations, I am committed to reducing the severity and frequency of process safety events. My extensive engagement with CCPS, encompassing positions as a staff consultant and boot camp instructor, along with prior roles as vice chair of the CCPS planning committee, member of the technical steering committee, and active participation in 17 project committees — five of which I chaired — underscores my commitment to CCPS and AIChE.

As past chair of AIChE's Process Safety Division (PSD), I led a multi-year endeavor to survey members, creating a value proposition, bylaws update, and name change from Safety and Health Division to Process Safety Division — aligning PSD's objectives with AIChE committees and projects. This includes the first IDEAL gap assessment aligned with AIChE. My passion for process safety is evident in my projects that have had national and global impacts, such as Walk the Line, a conduct-of-operations model addressing human factor incident causes; and Process Safety in Academia, a network of university professors teaching process safety that was created to help them learn from each other.

As an AIChE Board Director, I am committed to furthering the organization's aspiration of "Doing a World of Good." My focus areas include championing initiatives through the PSD, CCPS, AIChE Academy, and the Global Congress on Process Safety to realize a "world without process safety incidents" by addressing human factor incident causes and enhancing conduct of operations. Additionally, I am dedicated to promoting lifelong professional and personal learning, particularly among student and early career chemical engineers.

Raymond Rooks

Raymond Rooks is a principal engineer at AVN Corporation, where he develops new chemical processes, and designs and operates process separation systems, in particular distillation systems, for a range of clients and chemistries. Before AVN, he spent 14 years at Praxair/Linde in cryogenic technology, working in process development, technology management, and competitive analysis. He also spent eight years at Union Carbide/Dow Chemical in process separations. He has given presentations and published several articles in process development and distillation. Within AIChE, he has been a member and served in the leadership of the Process Development Division for 25 years. He is also a member of the Chemical Engineering Technology Operating Council (CTOC), and last year was elected an AIChE Fellow.



Statement: Chemical engineering as a profession is experiencing a declining workforce as engineers retire and other professions compete for the best students. Personal interactions with students have shown that they have a strong desire to make an impact in the world and drive us to a greener and more sustainable world. Chemical engineering is a critical element in a sustainable future, but many students don't have exposure to the profession.

AIChE's greatest strength — the interactions of its members and the building of communities — is a key part of our strategic plan. These are realized in AIChE's IDEAL Path, the Process Engineering Community, technical divisions, student chapters, local sections, etc. AIChE has a unique opportunity to be more central to the needs of its members. Different communities have difficulty interacting with each other. This is particularly true among younger members. Ad hoc approaches can be valuable, but bringing members together can be the core of what we do, helping to highlight the value of AIChE.

AIChE's web platform provides a great starting point for integrating our diverse communities. By focusing on building connections, an expanded AIChE digital ecosystem will allow our diverse communities to easily connect, find resources, and for members to highlight their professional profile.

Increased interactions between communities will play an outsized role in strengthening our organization. New initiatives, such as the "Bee A ChemE" program, are an example of engaging our numerous student chapters to excite middle school students about our profession. More of this is needed, even after someone has decided to pursue chemical engineering.

My focus will be to strengthen interactions throughout the Institute as I believe it's

Frank van Lier

Frank van Lier was Global Senior Director of Process Technology for The Lubrizol Corporation, retiring in 2022 with 40+ years industrial experience across R&D, operations, and technology. His experience included numerous leadership roles at Lubrizol's Ohio and Texas plants and a year as the General Manager of Lubrizol's Zhuhai, China, manufacturing facility (2018). He also spent six years on the board of the Lubrizol/Indian Oil joint venture located in Mumbai, India. Frank earned a BSChE from the University of Cincinnati and an MBA from Case Western Reserve University.



An AIChE Fellow, Frank has been a member of AIChE since 1980. Most recently, he was on the inaugural governing board of AIChE's RAPID Manufacturing Institute, acting as Chair in 2022. He also chaired the Chemical Engineering Technology Operating Council (CTOC; 2015) and was a director and Chair of the Management Division. Current activities include service as a reviewer for the Virtual Technician and Operator Training Program (VTOP) being developed by AIChE's Institute for Learning and Innovations, and continued engagement with the Management Division.

Statement: My hopes for AIChE are to continue to build on the successes of the past. I see RAPID and the Center for Chemical Process Safety (CCPS) as key examples of successful efforts to engage chemical engineers from across industries. RAPID has created valuable industry and academia collaborations focused on more sustainable, safer, and more economical manufacture as exemplified by the successful implementation of process intensification projects at Lubrizol plants in close collaboration with the University of Pittsburgh. The next five years of RAPID are all about shifting to a more sustainable model while still delivering value to AIChE members and their organizations.

Continuing to improve and add member value through AIChE's education efforts will lead to expanded membership and increased corporate engagement if members can cost effectively learn from experts in the field.

The number of AIChE technical divisions, forums, and technology groups can make it confusing for even veteran members to navigate the massive volume of offerings. Opportunities to continuously improve targeted communications are critical to keeping members engaged and attracting new members.

The above are the areas I've supported in the past and intend to support as a director of the Institute. We need to continue to build the network of engineers and encourage/engage with the younger and more diverse cohorts to bring out the best in all as part of AIChE's mission to build an inclusive community united in "doing a world of good."

I am honored to be a nominee for the AIChE Board of Directors and ask for your support.

Stephen P. (Steve) Beaudoin

Stephen P. (Steve) Beaudoin is Professor in Purdue's Davidson School of Chemical Engineering. He is Founding Director of the Purdue Energetics Research Center (PERC), where he directs multiple DoD-sponsored research centers focused on explosives and propellant engineering. He is also Founding Academic Director of a novel online Master's degree program focused on defense and security that serves three U.S. Navy bases. Beaudoin was the 2021-2022 Chair of the Purdue University Senate, and has served Purdue as Interim Associate Vice Provost for Student Affairs. He has chaired multiple sessions at AIChE's regional and Annual meetings and has been a mentor at the AIChE Young Faculty Workshop. He has published more than 100 refereed articles, has made ~200 technical presentations, and has received the NSF Early Career Faculty Research Award as well as numerous teaching and mentoring awards. He earned his BS from the Massachusetts Institute of Technology (1988), his MS from the University of Texas at Austin (1990), and his PhD from North Carolina State University (1995), all in chemical engineering.



Statement: As a Board member, I would encourage the Institute to pursue workforce development activities that bring more engineers into our profession and help existing professionals to enhance their skills. I have substantial experience with workforce educational programs through an MS degree program that I direct and through a program I am developing at a local community college to train operators to work in chemical facilities. I would encourage the use of the AIChE Institute for Learning and Innovation (ILI) construct to review emerging industrial needs against the classical chemical engineering curriculum to find ways to address such needs without sacrificing valuable outcomes.

We learned from the COVID pandemic that educational and professional activities can be successful when executed remotely. I would encourage activity within the AIChE Academy to develop more asynchronous, remote educational content leading to short course or university credits (including certificates) in key topic areas. The certificates could be stackable to form advanced degrees, and this would provide maximum flexibility as our stakeholders pursue their lifelong learning needs. To develop more engineering talent, it is also important to create compelling educational content for junior and senior high schools. This can inspire students to prepare themselves to succeed in university chemical engineering programs — which is important in general but especially so for schools in diverse communities where there may be few existing chemical engineering role models.

If elected to the Board of Directors, I will help AIChE to remain the leading international voice in the chemical and related engineering professions by promoting new partnerships and activities such as these that help us to be responsive to the needs of our stakeholders and society.

NOMINATED AS DIRECTOR FOR THREE YEARS BEGINNING IN 2025

Luke Landherr

Luke Landherr is a College of Engineering Distinguished Teaching Professor and Associate Chair of Undergraduate Studies in the Chemical Engineering Department at Northeastern University. He received his BS from Lafayette College and his PhD at Cornell University, before completing an NRC postdoctoral fellowship at the National Institute of Standards and Technology.



His NSF-funded research into comics and videos as visual learning tools for students has enabled him to create groundbreaking educational tools. These materials have been used at universities and high schools throughout the U.S. and internationally, including the "Wide World of Chemical Engineering" comic and the *Crash Course: Engineering* series with PBS Digital. He is a regular contributor and Publication Board member for the *Chemical Engineering Education* journal. He was named one of AIChE's 35-Under-35 in 2017 and has won AIChE and American Society for Engineering Education (ASEE) awards for his educational research and teaching, including AIChE's awards for Excellence in Engineering Education Research and for Innovation in Chemical Engineering Education.

Statement: I am honored to be nominated for AIChE's Board of Directors, and to have the opportunity to represent our discipline, colleagues, and students in this capacity. I have extensive leadership experience within AIChE, having served as Chair of both the Societal Impact Operating Council (SIOC) and AIChE's K-12 Committee, as well as Director for AIChE's Education Division. Through these roles, I helped found and organize the K-12 STEM Showcase at the Annual Meeting starting in 2019, and helped build AIChE's K-12 Community — now with several thousand members. I also served as Programming Co-chair for the 2021 Annual Meeting.

I strongly believe in AIChE's aspiration to provide leadership to our field and promote lifelong growth in chemical engineering. If elected, I aim to further the impact of the Institute through:

- creating and expanding programs, outreach, training, and initiatives that will increase growth in our profession and attract new generations of chemical engineers;
- promoting policies that enable innovative research and technology so that chemical engineers can continue to be leaders in medicine, sustainability, materials, and the many other fields that make up our discipline;
- improving communication and highlighting the achievements of chemical engineers both within our profession and beyond, to better engage members and support growth efforts;
- upholding the IDEAL path by helping to build an inclusive community where all members are empowered to contribute to and strengthen our profession.

I welcome your feedback and any dialogue about how I can best serve you on the AIChE Board at l.landherr@northeastern.edu.

Akua Asa-Awuku

Akua Asa-Awuku is currently a professor of chemical and biomolecular engineering and the Associate Dean for Diversity, Equity and Inclusion in the A. James Clark School of Engineering and Professor at the University of Maryland, College Park. She received her BS (2003) in chemical engineering from the Massachusetts Institute of Technology, and her MS (2006) and PhD (2008) in chemical engineering from the Georgia Institute of Technology. Dr. Asa-Awuku's primary research explores and predicts the fate and transport of aerosols and droplets in the environment, and their interactions with water as they pertain to air quality, climate, and health. Her work as an engineer, teacher, and leader is deeply rooted in chemical engineering principles, and during her career she has worked with academic, industry, and community partners to address some of the most pressing environmental and atmospheric challenges of our time. She currently has more than 70 publications and is a recipient of research grants from the U.S. National Science Foundation, the Environmental Protection Agency, and the Department of Energy.



Statement: I am deeply honored to have the opportunity to serve, and I am enthusiastic about leveraging my leadership skills and technical expertise to make meaningful contributions to the AIChE Board of Directors. I first became a member of AIChE in graduate school, and my passion and dedication to our field of chemical engineering have only grown stronger over the years. I firmly believe that our discipline represents a distinctive intersection of science, innovation, and real-world application with the potential to address pressing global challenges through technological advancements and chemically sustainable solutions.

My prior and current experiences have shaped my perspectives and are well-aligned with the current AIChE strategic plan. I am the former President of the American Association for Aerosol Research and currently sit on external advisory boards for the National Center for Atmospheric Research, Pacific Northwest National Laboratory, and Georgia Tech. My work in climate and environmental justice research via a chemical engineering lens has helped to expand our profession's ability to address important societal issues and maintaining relevance in today's evolving world requires ongoing engagement with the public, industries, and government. Additionally, the opportunity to continually learn and adapt in our dynamic and impactful discipline fuels my enthusiasm to serve. I will strive to bring fresh, innovative perspectives, to invigorate discussion, inspire creative problem-solving, and drive strategic decision-making for the board of directors. In closing, I encourage all members to keep this dialogue going in ways to foster growth and future impact in our chemical engineering discipline.

Please feel free to email me with any further ideas or questions you may have: asaawuku@umd.edu.

INCUMBENTS

**President-Elect
(to serve as President in 2025)
Joseph D. Smith**

Missouri University of Science and Technology
Chief Technology Officer,
Elevated Analytics Consulting



**Treasurer
(Second Year of a Three-Year Term)
Ana P. Davis**

Head of Health, Safety, and Environment
in North America
Syngenta



Please join me and vote for your favorite candidate for AIChE Election in 2025!
Also, note that a local CLE AIChE member is running for office. Voting begins August 26th and ends September 30th. For reference, please go to:
[2024 AIChE Board Election for the 2025 Board| AIChE](#)

■ AIChE[®] Election Ballot ■

President-Elect (Please vote for one)

- Anne O'Neal
- Gavin Towler

Secretary (Please vote for one)

- David J. Dixon
- Julianne Holloway

Director (Please vote for four)

- Robert Y. Ofoli
- David Klanecky
- Jerry J. Forest
- Frank van Lier
- Raymond Rooks
- Stephen P. (Steve) Beaudoin
- Luke Landherr
- Akua Asa-Awuku

To be counted valid, ballots must be received by **September 30, 2024**.

To use an electronic proxy instead of this paper ballot, please visit:

[AIChE.SocietyElection.com](https://www.aiche.org/election)

on or after August 26, 2024.

Thank you for voting.

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BUSINESS

U.S. GREEN ENERGY

Promised hydrogen-fueled future is stalled over tax credits

Bloomberg

Two years after President Joe Biden's landmark climate law promised to kick start green hydrogen production with generous tax credits, companies still don't know who will qualify.

Billions of dollars in investments sit on the sidelines as a result.

The Biden administration sees green hydrogen as a critical component of the energy transition, a way to clean up heavy industries that can't easily run on electricity. But the nascent hydrogen economy has been paralyzed waiting for final rules on a key tax credit, which will provide up to \$3 for every kilogram of the fuel produced.

Hydrogen companies considered the initial guidelines issued by the Treasury Department late last year too strict and warned that many of their planned plants wouldn't qualify for the full incentive. Developers have since been left in limbo as they await adjustments before the final rules are approved.

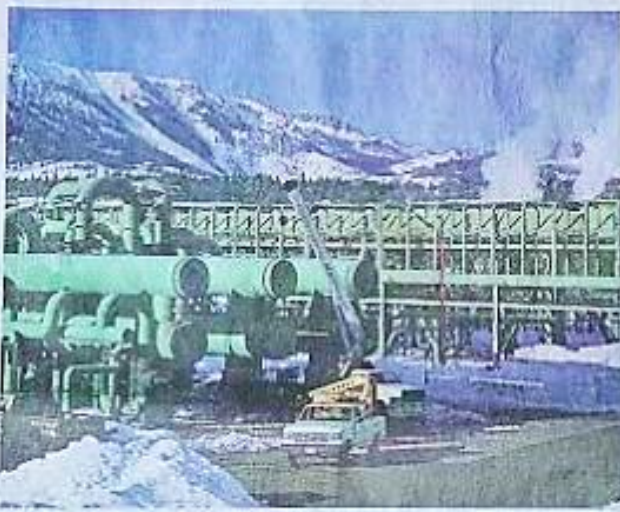
Hy Stor Energy, for example, plans to produce hydrogen in Mississippi using on-site wind and geothermal energy and is operational in 2027.

"Our project has multiple gigawatts of renewables and is holding off billions of dollars in investment," said Chief Commercial Officer Claire Behar. "That is just one project. If you multiply it by 10 to 20 projects, it's a massive investment that's being stalled."

The delay isn't simply a case of slow-moving bureaucracy. Industry and environmentalists have engaged in a months-long lobbying fight over the rules, with the federal government trying to strike a balance, but the lack of progress could impede the nation's decarbonization efforts.

"People in the industry are very frustrated," said Frank Wolak, chief executive officer of the Fuel Cell and Hydrogen Energy Association. "The longer people defer investments, the less committed they are."

Almost all hydrogen produced today is stripped from natural gas in a process that gives off carbon dioxide. But there are cleaner ways to make the fuel, such as capturing the CO₂ or splitting the hydrogen from water using renewable electricity



The Biden administration sees green hydrogen as a critical component of the energy transition, a way to clean up heavy industries that can't easily run on electricity. Pictured here is a geothermal power plant in Mammoth Lakes, California. *Joe Stone, Bloomberg/77NS*

Those cleaner methods are the focus of the Inflation Reduction Act tax credit. The size of the credit available to each project rests on three so-called pillars: ensuring hydrogen is produced using new clean energy sources rather than existing ones, aligning hydrogen production with electricity generation times and adhering to stringent carbon intensity requirements.

Without strict rules on each, environmentalists argue, hydrogen production plants risk driving up greenhouse gas emissions rather than curbing them.

"The first draft in December was an excellent framework that will attract the truly green projects," said Fred Krupp, president of the Environmental Defense Fund. "Whatever happens, it's critical that Treasury uphold this framework and not add exemp-

tions that would water down the emissions integrity."

Companies counter they need looser rules, at least at first, to get the industry off the ground.

In addition to the tax credits, the federal government has set aside \$8 billion to create a series of hydrogen hubs that would match producers of the fuel with customers using it. But leaders of the regional hubs are so worried about the current tax credit guidance that they sent the Treasury Department a letter in February arguing many of their own projects won't happen unless the rules are changed. The hubs, they said, are expected to generate \$40 billion in private investment and support 334,280 jobs.

The Treasury Department says it is carefully considering all the many comments it has received as it drafts the final rules, but officials haven't given any timeline for finishing the work. "Finalizing rules that will help scale the clean hydrogen industry while implementing the environmental safeguards established in the law remains a top priority for Treasury," a department spokesperson said in an email.

Finding the right balance has been hard. John Podesta, Biden's senior adviser for international climate policy, called the IRA's hydrogen incentives "the most complex of the credits, technically and legally" at an event this week celebrating the second anniversary of the law's passage. He acknowledged the mixed reaction the government's preliminary guidelines received. "Some people loved it," Podesta said. "Some people didn't."

Even if new guidelines are published now, companies might wait until after the election to see if they need to comply with them, according to Martin Tengler, an analyst at BloombergNEF. Donald Trump has promised to target the IRA if he retakes the White House in November, but his attitude toward hydrogen is unclear.

Some in the industry expect the Treasury Department to soften its rules — although that hasn't happened yet. Andy Marsh, CEO of Purg Power Inc., said he expects new guidance soon.

"We won't be surprised if there's some announcement after the Democratic convention and a further announcement after the election," he said during the company's earnings call last week. "I think it's really clear that the regulations on the three pillars are going to become much looser."

Carbon-free green hydrogen remains far more expensive than hydrogen from natural gas, and until that changes, companies have little incentive to start using it as a fuel, but costs won't come down until the wave of planned green hydrogen plants start opening, Tengler said. And they won't move forward until the federal government finalizes its tax rules.

"The only way green hydrogen becomes cheaper is by building projects, but with these early projects stalled, the industry is being choked before it's even born," Tengler said.

NE Ohio Project Team Looking for Chemical Engineering Consulting Services


A project in NE Ohio is seeking chemist or chemical engineer to provide consulting services for a forthcoming project. The project includes designing and building a test station to calibrate flow meters and instrumentation used in an industrial process. The fluid in the process is caustic and toxic. The goal is to find a solution that is safe to use and has similar physical properties to the existing fluid. The consulting services would include evaluating the existing fluid and identifying the test fluid. Information on the existing fluid and samples of the fluid are available. The project is ready to start immediately. More detailed information will be provided to interested parties.

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CLE AIChE: Cleveland Chapter

Fall 2024 – Spring 2025 Program Planning

(as of Aug2024)

Month	Topic, Speaker	Location	AIChE Officer Responsible
September 7, 2024 (6 PM)	Oktoberfest Social Event	German Central Farm, Parma	Joe Yurko, \$7/guest admission + \$ food & beverage free for CSU AIChE students: https://germancentralfoundation.com/oktoberfest
September 11, 2024 (Wednesday 2:30 – 3:30 PM)	Dr. Yu, CSU, IEEE Quantum Computer	CSU, Engineering CSU AIChE & IEEE Students	Joe Yurko & Dr. Gatica, Dr. Holland, Members: \$10; Students: Free CLE AIChE: Pizzas & Beverages
October 10, 2024 (Thurs. 6 PM)	M.W. Wilson Company Steam Safety Class & Tour	M.W. Wilson Company 2579 Center Road Hinckley, OH 44233	Joe Yurko, Jeff Wilson, Dinner provided by M.W. Wilson Co.? M.W. Wilson Co.: 330-225-0663 https://www.wmsilsoncoinc.com
October 2024 (6 PM) Wed. 16Oct2024 Wed. 23Oct2024 Wed. 30Oct2024	Chemical Process Safety Analysis Seminars: by Gurmukh Bhatia, CPISA	Strongsville Fire Dept. Ward 1 Community Rm 11297 Webster Road, Strongsville, OH 44136	Joe Yurko, Dinner cost is included in the seminar expense. Seminar expense: \$25 per session with a total of 3 sessions. Certificates will be awarded for each class as well as a final certificate. std: 440-580-3210: https://www.strongsville.org/departments/fire-emergency-services/stations-and-equipment
November 13, 2024 Wednesday (4:00 – 8:00 PM)	Benjamin A. Horwitz "Portrait of a Chemical Engineer" Career Discussion with students and professionals	CSU AIChE Section Joint Meeting, Washkewicz College of Engineering?	Joe Yurko, Dr. Gatica, Dr. Holland, CLE AIChE Meals: Professional members: \$10; Students: Free CLE AIChE: Pizzas & Beverages
December 2024 (6 PM)	Nuclear Power an Introduction, Speaking: Andrew O'hrablo?	The Sanctuary, Rockside Road Independence, 44131	Joe Yurko, Dinner menu ordering for professional members; Students cost: \$5 http://places.singleplatform.com/shulas-steak-house-8/menu#menu_5599999
January 2025 (6 PM)			
February 2025 (6 PM)	Appalachian Regional Clean H2 Hub ARCH2 DOE Award, Andrew Thomas, JD, CSU?	The Sanctuary, Rockside Road Independence, 44131	Joe Yurko, Dinner menu ordering for professional members; Students cost: \$5 http://places.singleplatform.com/shulas-steak-house-8/menu#menu_5599999
March 2025 (6 PM)	Safety Engineering in Oil Refining processes; Marianne Corrao Speaking?	The Sanctuary, Rockside Road Independence, 44131	Mike Galdoczy , Dinner menu ordering for professional members; Students cost: \$5 http://places.singleplatform.com/shulas-steak-house-8/menu#menu_5599999
April 2025 (6 PM)	NEOSEF Awards Banquet	CCPL Branch Library?	Joe Spagnuolo, Moderator NEOSEF Students, CCPL Branch Library Dinner: Pizza, professional members: \$10; Students: Free
May 2025 (6 PM)	Tour?		

In person events -- Remote meetings if non-contact required / **COMPLETED MEETING** / **PLANNED MEETING** / **PROPOSED MEETING**

