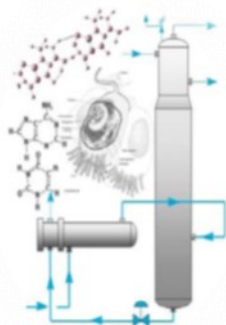


AIChE Chicago Section

May 2021 Newsletter



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May 2021 Meeting Information

Prof. Liane Rossi

**Laboratory of Nanomaterials and Catalysis,
Institute of Chemistry, University of São Paulo**

Biography:

Liane M. Rossi holds a BS degree in Chemical Engineering (UFRGS, Brazil, 1994) and a PhD degree in Chemistry (UFSC, Brazil, 2001). After postdoctoral research experience in Brazil and the USA, in 2004, she joined the Institute of Chemistry at the University of São Paulo (USP) and became a Full Professor in 2016. Her research interests in the field of chemistry and catalysis include novel approaches for the synthesis of supported metal nanoparticles with con-



Cont. on Page 3

May 2021 Meeting Summary

Speaker:	Prof. Liane Rossi University of São Paulo
Topic:	Carbon dioxide capture and utilization: opportunities and challenges
Event Date	Tuesday, May 18, 2021
Registration Deadline:	5:30-7:30 PM
Program:	5:30 PM AIChE Chicago Announcements and Officer Elections, Awards 6:00 PM Technical Presentation 7:00 PM Volunteer Recognition & Social Time
Where:	Virtual Zoom Meeting

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



Cost: Free

(To donate or learn about the local section student's scholarship program, please go to [this page](#).)

Chair's Corner

The upcoming May monthly meeting is the end of our current programming year. It has been a pleasure serving as the section chair this year and I truly appreciate the efforts invested by our many talented volunteers. The work done by McKay Rytting (Treasurer), Ignasi-Palou Rivera (Secretary), Chris Nicolas (Programming Chair), and others was essential to our section's operations over the past year. Robert Tsai, Matthew Walters, Hakim Iddir and others worked hard to ensure that the virtual Midwest Regional Conference went smoothly and had outstanding content. Reza Mostofi and Azita Ahmadzadeh did an excellent job getting our monthly newsletters to all of you, and Sanaz Taghvaii made sure our social media accounts were up-to-date with valuable and exciting information. There are many other folks who generously devoted their time and talents to our local section and I am very grateful. For the coming year, Ha Dinh will be our section chair and I look forward to seeing our organization continue to thrive under her leadership.

Three personal goals of mine for our section were to:

- Ensure that all virtual events maintain high levels of quality and engagement
- Judiciously deploy funds to best advance our mission
- Increase the visibility and membership of the Chicago Section

I believe that our section has done very well in these areas. The virtual monthly meetings and the MRC were well attended and allowed us to have numerous speakers and other attendees who likely would not have been able to travel to an in-person event based in Chicagoland. I hope that we are able to offer hybrid events in the future so that we can continue to strengthen and broaden our chemical engineering community. As previously mentioned, our local section remains on firm financial footing and we were even able to increase award/scholarship amounts this year. Our section also worked to increase visibility through a LinkedIn advertising campaign and by reaching out to over twenty academic departments throughout the Midwest. We fortunately saw some new faces at our monthly meetings and at the MRC. I hope the newcomers remain engaged and that we continue to see new faces.

I hope you enjoy this newsletter, which includes wonderful news about recipients of this year's Harry McCormack Awards, the AIChE Chicago Section Student Scholarships, and the Ernest W. Thiele Award sponsored by BP. The awards will be presented during our May meeting, at which time we will also hold elections for several open board positions.

Jeffrey M. Zalc

jeffrey.zalc@bp.com
zalc@iit.edu

AIChE Chicago Section Chair
AIChE Senior Member



Election Of Section Officers - Absentee Ballots

Election of officers will be held at the annual meeting on May 18. If you expect to be absent from this meeting, you may vote by absentee ballot. Please contact our secretary at aichechicago@gmail.com to obtain one.



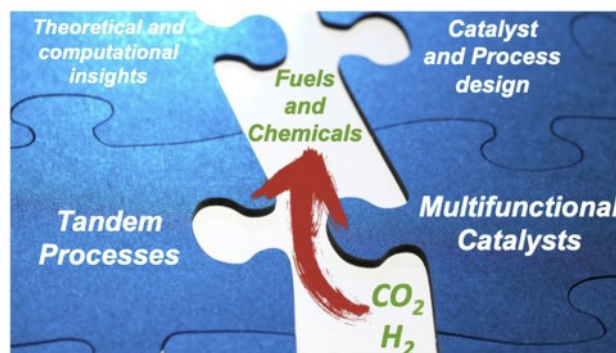
Cont. from Page 1

May Meeting information

trolled size, morphology and surface properties, advanced in situ and operando characterisation techniques, new reactivity patterns at metal-ligands interfaces, bimetallic and hybrid catalysts, and the concepts of green chemistry for selective transformations. The main catalytic processes currently under study are selective hydrogenations and oxidations, including CO₂ capture and conversion. She currently serves as Coordinator of the CCU Program at the Research Centre for Gas Innovation (RCGI), sponsored by FAPESP/SHELL/USP (São Paulo, Brazil). She is the author or co-author of more than 130 papers published in indexed peer-reviewed scientific journals. She is an Associate Editor at ACS Sustainable Chemistry and Catalysis and an Editorial Advisory Board Member at ACS Catalysis (American Chemical Society) and Chemistry Select (ChemPubSoc and Wiley). She is a member of the Brazilian Chemical Society (SBQ), Brazilian Catalysis Society (SBCAT), and American Chemical Society (ACS).

Abstract:

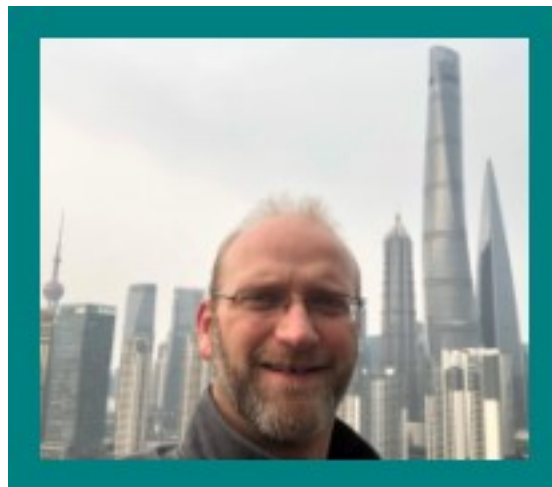
Reversing climate change is one of the major challenges faced by humankind, and its resolution is far from being consensual, as it requires dramatic changes in energy sector and governmental policies. The correlation between global warming and greenhouse gases has been well established; however, greenhouse gas emissions have grown exponentially despite the several climate change treaties. The carbon capture, utilization, and storage (CCUS) concept has received increasing attention worldwide. From the point of view of carbon dioxide utilization, there are several opportunities and challenges. The catalytic conversion of CO₂ into C₂+ hydrocarbons, olefins, or alcohols seems to be considered the most promising strategy. However, the most straightforward obtained chemicals are usually the C₁ products, such as CO via the reverse water–gas shift (RWGS) reaction, CH₄ via Sabatier or methanation reaction, CH₃OH via selective hydrogenation. The hydrogenation of CO₂ through RWGS to form CO and water is an equilibrium-limited endothermic reaction favored at high temperatures, and methane is concomitantly formed over most catalysts as an undesired side product at low temperatures (< 600 °C). Selectivity, green H₂ supply, and energy consumption remain essential issues. The catalytic hydrogenation of CO₂ into CO has been described as an important strategy for syngas production and as an intermediary pathway in several two-step gas-to-liquid processes. Methanol (CH₃OH) is one of the most promising platform molecules obtainable from CO₂, as it can be considered an H₂ carrier or integrated with several upgrade processes to olefins or aromatics. Until now, the only successful commercial experience regarding CO₂ hydrogenation is the George Olah plant in Grindavik, Iceland. This plant produces methanol using hydrothermal and geothermal energies. Owing to the growing interest in CO₂ mitigation, we will give in this presentation selected results and catalyst design strategies under development at the Research Centre for Gas Innovation at the University of São Paulo.



<https://doi.org/10.1016/j.cogsc.2020.100386>

Congratulations to a new AIChE fellow Dr. Trey Morrison

Dr. Morrison is a Principal Engineer at Exponent, Inc. He applies his expertise as a chemical engineer to provide technical consulting services for a variety of industries including consumer products, industrial equipment, agricultural and food processing, chemical manufacturing, and oil and gas. He is a licensed professional engineer in multiple states and a Certified Process Safety Professional through CCPS. Over the last twenty years, he has analyzed a multitude of products, equipment, systems and processes to aid stakeholders including owners, manufacturers, and insurers through incident investigation, fire and explosion investigation, root cause analysis, and evaluation and mitigation of risks. Dr. Morrison is active in the product safety and chemical process safety communities through standards (NFPA, UL) and technical (LPS, PSMM) committee participation, presentations, and publications. He serves in leadership roles in the field of chemical process safety through conferences sponsored by AIChE in North America and in Latin America. During his career, Dr. Morrison has chaired many process safety conference sessions, collaborated on manuscripts and presentations, and taught selected topics. The objectives of these activities are to aid in the prevention of major loss incidents that involve fires, explosions, runaway reactions, and hazardous material releases in the chemical, petrochemical, and related industries.



We want you for AIChE Chicago!

We need your help!

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.

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

Congratulations to this year's Mc Cormack Awardees

Each year, the McCormack award is given to one chemical engineering undergraduate student at Northwestern University, University of Illinois, and Illinois Institute of Technology based on a combination of excellence in study, research, and extra-curricular activities. This year's winners are:

I am currently an undergraduate research assistant at the Asadi Research Group, where I was involved in developing and characterizing next generation electrocatalysts for carbon dioxide reduction research.

During my time at the Illinois Tech, I was involved with Korean Christian Association (KCA in short), where I served as president of organization for last two years. During which I organized and planned weekly meetings. I was also involved as a member of AIChE IIT Chapter.

After four years at the Illinois Tech, I will be moving to Austin Texas to start my graduate study at the University of Texas at Austin, where I hope to continue my research for developing next generation catalysts for, not just CO₂ reduction, various reactions that could help the global crisis of environmental/energy issues.



Junwon Park
Illinois Tech



Siva Sreedhar
UIC

The Department of Chemical Engineering at UIC proudly announces Siva Sreedhar as our selection for the AICHE Chicago Section Harry McCormack Outstanding Senior Award. Siva will be graduating this May at the top of her class with an overall GPA of 4.00, and with dual-majors; a BS in Chemical Engineering with a Concentration in Biochemical Engineering, and a BS degree in Mathematics & Computer Science with a Concentration in Computational Math.

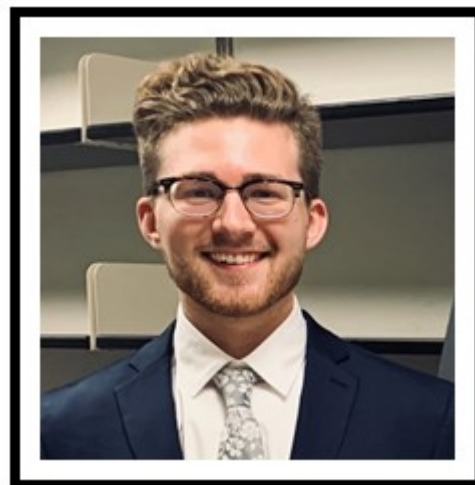
During Siva's time at UIC, she was heavily involved in research in the UIC College of Medicine's Department of Pathology and Bioengineering, and has presented and been awarded for her work on using machine learning and infrared spectroscopy to predict deterioration of kidney transplants. Siva also was part of an investigative team looking at the effect of supportive care on outcomes in head and neck cancer patients. Ad-

ditionally, Siva performed a research internship at the University of Wisconsin using ImageJ software to automate and optimize the measurement of changes in size and shape of colon cancer organoids after exposure to drug treatment and radiation.

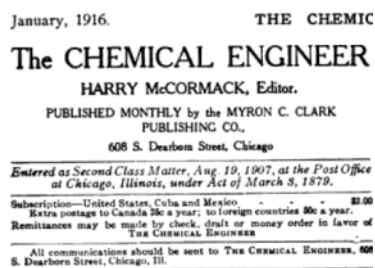
Outside of research and her studies, Siva was the co-president of Sparkathon, the annual UIC dance marathon fundraiser to raise money for pediatric cancer survivors. She has lead and helped organize workshops to teach STEM topics to students in underserved neighborhoods in Chicago, and is a student leader for a public health program aimed to use phone calls to reduce social isolation of elderly individuals. She is also on the board of SWE, Tau Beta Pi, and helped start a buddy system for incoming UIC chemical engineering freshmen to help them transition to college. After graduation, Siva will be entering medical school with the hopes of continuing research to find an intersection of engineering and medicine in her career. ➡

← At Northwestern University, I have been granted so many opportunities to engage with numerous organizations that have allowed me to grow both as a student, an engineer, and as a person. During my four years, I had the privilege to conduct undergraduate research with Dr. Jeffrey Richards in the Department of Chemical and Biological Engineering working to understand the dielectric-rheological properties of carbon black suspensions. Additionally, I was granted the opportunity to work with Dr. Julie Kornfield at the California Institute of Technology as an Amgen Scholar to analyze the deposition of peptides in the retina of mice.

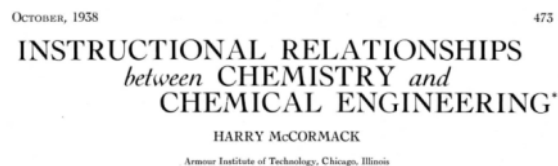
Outside of research, I have worked with the Office of Academic Support and Learning Advancement as a Peer-Guided Study Group Facilitator for multivariable calculus for nine quarters. I have also been able to serve as a mentor for several first- and second-year ChemEs in the past two years through Northwestern's chapter of AIChE, where I have gotten to help my peers navigate new and challenging aspects of pursuing a chemical engineering degree. These experiences have been invaluable and have helped me recognize my passion for education and mentoring, sparking an interest in a career in academia to help mentor future generations of engineers and scientists from all backgrounds. I also have gotten the chance to serve as the Co-President of the Northwestern chapter of Tau Beta Pi and Vice President of our chapter of AIChE. In the future, I plan to pursue a Ph.D. in Chemical Engineering, where I hope to study the development and applications of synthetic biology aimed at addressing world health challenges regarding infectious disease.



Connor Call
Northwestern



Harry McCormack



Significant development of the educational programs began under the leadership of Professor McCormack. Interestingly, the American Institute of Chemical Engineers (AIChE) was established in 1908, the same year that Professor McCormack became department chair. History shows that Professor McCormack was an exceptionally active member of the society and, in 1924, served as a co-founder of the AIChE Chicago Section; the society's first local chapter. In honoring his contributions to the society, the Chicago AIChE local chapter offers the "Harry McCormack Outstanding Senior" award to each of the top students in three chemical engineering departments in the Chicago area.



Armour Institute
Main Building

"A Century of Excellence in
Chemical Engineering Research and Education"



Chairman Harry McCormack
(front center) with ChE faculty.

<https://journals.flvc.org/cee/article/view/122610/121597>

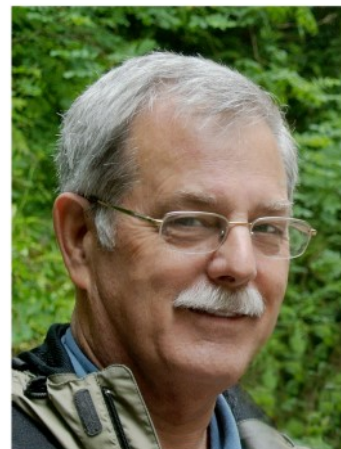
Congratulations to this year's Thiele Award

The winner of this year's Ernest W. Thiele Award sponsored by BP is Dennis O'Brien. He has demonstrated throughout his long career the ability to innovate, conduct original research, and contribute to the chemical engineering profession at both the local and national levels.

Mr. O'Brien has been responsible for many process design improvements, including development, design and commercialization of divided wall column technology. He was the first process engineer to put this in practice for UOP Detergent Alkylation Process. Dennis started working at UOP more than 40 years ago. In collaboration with research and development and technical services, improvements in the design were introduced by him frequently. The capital and operating costs were reduced while the yields increased. His greatest contribution is in the area of Detergent Alkylation for the production of Linear alkyl benzene (LAB), a raw material for biodegradable household detergent and for the propane/isobutene dehydrogenation UOP Oleflex® process, which has resulted in a number of patents to his credit.

Development of solid bed detergent alkylation required to remove heavy aromatics from the feed which was accomplished by a molecular sieve adsorption. The first commercial design required two fractionation columns. By working with other senior engineers and technical service, a unique divided wall column design eliminated one column and cut the utilities in half. This design won a prize for innovative engineering from ICHEME. It has become the standard for design of detergent alkylation complexes licensed by UOP.

Mr. O'Brien holds 18 US patents and is author of several publications. He has served as Director, Secretary, Treasurer, Vice chair, Chair, Past Chair for the Fuels and Petrochemical Division of AIChE. He has also served on several committees for STEM, both in Chicago and nationally. Dennis is a volunteer at Engineers Without Borders, Chicago Chapter as well as in the UIC and IIT Chemical Engineering Departments



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, 2022**.

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

Congratulations to Patrick Shannon AIChE shining star awardee

AICHE Chicago History for Patrick Shannon

I have had the opportunity to serve the Chicago Section as an elected officer in the positions of Section Chair, Past Chair, Treasurer (5 years), and Director-at-Large (3 years). I have also served in non-elected positions as House Chair (2 years), Section By-laws Update Committee Chair, and as a new officer training leader.

Additionally, I have helped organize and conduct numerous Midwest Regional Conferences in several roles including serving as Conference Chair (2 times), Programming Chair (2 times), General Arrangements Committee Chair, Finance Chair (5 times), and Session Chair (3 times).

Working in these leadership positions has always been both challenging and satisfying. They have required me to use the problem solving and organizational skills developed during an engineering career to work on a team to accomplish a different kind of project, such as organizing the local section or producing the MRC. There is always a feeling of accomplishment when these tasks are successfully completed, particularly when younger professionals and students get the opportunity to grow and succeed. Plus, the camaraderie developed while working with other engineers has often carried over into my professional career and personal life.

I am grateful to the Chicago Section members who nominated me for the Shining Star Award and I sincerely thank you for this honor.



Celebrating National Inventors Month

Did you know that May is National Inventors Month? This annual celebration was created to promote “the positive image of inventors and the real contributions they give to this world.”

(<https://www.invent.org/blog/trends-stem/National-Inventors-Month>)

Temple Grandin

Temple Grandin is our nation’s most expert designer of humane facilities for livestock animals.

At the age of 2, Grandin was diagnosed with autism, a psychological tendency towards introversion and detachment from the world. Alienated, as a child, from the emotional and social life of her peers, Grandin used the positive aspects of her condition – powers of logic, observation, and focus – to become an accomplished scientist. She went on to earn a PhD in Animal Science at the University of Illinois in 1989. Her area of expertise is the care and handling of livestock, including their processing in meat plants.



The idea came to Temple Grandin all at once, as a fully formed picture in her head. Ideas often come to her that way.

“I just saw it,” she says. “I’m a total visual thinker. I oftentimes just get these ideas as I’m falling asleep.”

The idea was for a passageway conveying pigs towards a slaughter room, the tunnel hung with overlapping electrodes to continuously stun the animals into unconsciousness.

⇒ <https://lemelson.mit.edu/resources/temple-grandin>

⇒ <https://www.smithsonianmag.com/innovation/temple-grandins-pig-stunning-system-came-her-vision-180971829/>

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 1st**.

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>



AIChE Chicago's Scholarship winners



Hello, I'm a first-year chemical engineering student at IIT and the Chem-E Car Coordinator of our AIChE student chapter. My hometown is Los Angeles, California, and I decided to come to IIT for the great academic programs offered as well as the excellent financial aid offered. I delved into this field for the vast opportunities available with a chemical engineering degree and I want to use my love of chemistry, math, and physics in ways that will benefit others. On the side, I run cross country and track and field, make YouTube videos and play with Rubik's cubes. Thank you everyone for taking this time!



Alejandro Torres



Abigail Hartzell

Abigail Hartzell is finishing her second year of the joint B.S./M.S. program at the University of Illinois at Chicago, with a biochemical concentration. She is currently involved in research of water treatment and filtration. She hopes to continue her work and growth in research and development in the future. Having lived in Chicagoland area her whole life, she would like to travel to collaborate with engineers in other areas of the world. When not studying, she enjoys learning computer programming and making art.

2021-2022 Elected Officers

Chair: Ha Dinh

Ha Dinh is currently a Senior Technical Sales Engineer in the Integrated Process Solution group in the Process Technologies business at Honeywell UOP, where she works on technical sales support activities and studies in refining and petrochemical areas. Ha joined UOP in 2015 as a Senior Research & Development Scientist, working on process kinetic modeling and optimization for commercialization of new technologies. Prior to that, Ha obtained a BS in Chemical Engineering from the University of Washington at Seattle in 2008 and her PhD in Chemical Engineering from Lamar University, a member of Texas State University in 2015. She is a Senior member of AIChE and currently serves as Chair-Elect of Technology Transfer & Manufacturing Area in AIChE Process Development Division. Ha served as Co-Vice Chair for Meeting Programming for the Chicago Section for 2018-2020. Ha also leads and supports multiple educational outreach programs.



Past Chair: Jeff Zalc

Jeffrey Zalc is a Principal Engineer in the Refining Technology & Engineering group within BP, where he has worked for the past 14 years on refining process modeling and simulation. Jeffrey is also an Adjunct Professor in the Department of Chemical and Biological Engineering at the Illinois Institute of Technology, where he teaches undergraduate courses on chemical plant design and chemical process simulation. He currently resides in Aurora, IL with his wife, Maura, and their two daughters. Jeffrey has a Ph.D. in Chemical Engineering from Rutgers University and completed his postdoctoral research at the University of California at Berkeley. He is a licensed Professional Engineer in Illinois. Jeffrey served as Treasurer for the Chicago Section for the 2018-2019 year.



Director at Large: Robert Tsai (continuing)



Bob Tsai is an R&D engineer in the Process Design Development group at UOP, where he supports the development and optimization of new technologies. He has been with UOP for almost 11 years, previously working in Engineering Innovation and Process Modeling roles, and has been granted over 10 patents during his career. Bob obtained a BS in Chemical Engineering from the University of Illinois at Urbana-Champaign in 2005 and PhD in Chemical Engineering from the University of Texas at Austin in 2010. Within the AIChE Chicago section, he was Co-Chair of Programming from 2016-2018, Chair and Past Chair from 2018-2020, and most recently served as Chair of the 2021 AIChE Midwest Regional Conference.

2021-2022 Elected Officers

Director at Large: Pat Shannon (continuing)



Pat is retired after holding process engineering leadership positions at several engineering and construction companies in Chicago and in Houston. Pat is a Senior Member of AIChE and has served the Chicago Section as Chair, Past-Chair, Treasurer, House Chair, and as a new officer training leader. Pat has also been Chair, Program Chair, General Arrangements Chair, and session chair for several Midwest Regional Conferences.

Pat earned a BS in Chemical Engineering from Purdue University and MS in Chemical Engineering from the University of Houston and is a Registered Professional Engineer in Illinois.

Proposed Slate for 2021-2022

Chair-Elect: Sarika Goel

Sarika Goel is currently Senior R&D Scientist at Honeywell UOP in the Hydroprocessing group where she is leading the hydrocracking catalysts development. Prior to this role, she worked in Exploratory Research Group at UOP, responsible for coming up with breakthrough technology ideas in Petrochemicals and Refining. Sarika received her Bachelor of Technology degree in Chemical Engineering from the Indian Institute of Technology-Delhi in India in 2009 and her PhD in Chemical Engineering from the University of California at Berkeley in 2015 under the guidance of Prof. Enrique Iglesia. She is a Senior member of AIChE and serves in the programming committee for AIChE Catalysis and Reaction Engineering Division (CRE) and as newsletter editor in AIChE Fuels & Petrochemicals division (F&PD). Sarika served as Co-Vice Chair for Meeting Programming for the Chicago Section from 2018 to 2020.



Director at Large - Jarad Champion



Jarad Champion is a licensed chemical engineer at Geosyntec Consultants with 14 years of experience working on hazardous waste cleanup and water resources projects. He has a BS in chemical engineering from University of Illinois at Urbana-Champaign and a MS in environmental engineering from Northwestern University. Mr. Champion is a board-certified environmental engineer by the American Academy of Environmental Engineers and Scientists. Mr. Champion has worked on treatment systems and regulatory compliance for remediating groundwater impacted by chemical releases sites across the nation. He has also prepared the preliminary design for a drinking water treatment system using multiple advanced technologies. Mr. Champion has previously served as the Secretary for the AIChE Chicago Section and served as the Chair-Elect Protem in 2018-2019.

Proposed Slate for 2021-2022

Vice Chair of Programming: Belma Demirel



Belma Demirel holds BS and MS degrees in Chemical Engineering from Ankara University in Turkey and a PhD in Chemical and Fuels Engineering from the University of Utah. She has worked for 14 years in academia and 20 years in oil and gas industry, including positions at Rentech, Praxair and UOP. Belma currently works for bp using her extensive experience in process technology and catalysis to coordinate programs in support of the safety, reliability, and commercial performance of bp assets. In addition to her experience with hydroprocessing and Fisher-Tropsch catalysis, Belma has expertise in Fischer-Tropsch, XTL and refining technologies, process flowsheet modeling, CO₂ capture and pilot plant design and operation. She is Six Sigma green belt certified and has worked as an instructor, as a team leader and managed a team of 10-20 engineers and scientists. Belma has published 28 journal articles, co-authored over 40 US and international patents, and has given numerous presentations at conferences. She is an AIChE Fellow, guest editor of Applied Catalysis A: General and mentors UIC students for their design class.

Vice Chair of Programming: David Hietala

Dr. Hietala employs chemical engineering principles to help solve complex problems from clients in a variety of industries. Dr. Hietala has expertise in solving problems involving reaction engineering and heat- and mass-transfer for a variety of industries, including consumer products, float glass manufacturing, automotive catalysis, and renewable energy. Dr. Hietala also specializes in fire and explosion investigation and process safety management. As a certified fire and explosion investigator, he has assisted with the investigation of numerous fires, explosions, and chemical releases at the residential, commercial, and industrial scales. Dr. Hietala has experience with both site inspections and laboratory testing during the investigation process.



Dr. Hietala completed his Ph.D. in Chemical Engineering at the University of Michigan, Ann Arbor. Through his graduate studies, Dr. Hietala has extensive experience with experimental and computational characterization of hydrothermal systems with chemical-reaction and heat-transfer phenomena. Dr. Hietala also has experience with wind turbine operation and maintenance from previous employment at General Electric. At Exponent, Dr. Hietala has assisted with the investigation of complex industrial fires and explosions.

2021 Meeting Schedule and Speakers

Month	Date	Speaker	Affiliation	Topic
May	Tuesday 18 th	Prof. Liane Rossi	Universidade de São Paulo	Catalyst design for sustainable transformations

Monthly meetings will resume in September

Proposed Slate for 2021-2022

Treasurer: McKay Rytting

McKay Rytting is an R&D engineer in the Process Modeling Group at UOP Honeywell, which he joined in September 2018 after obtaining a PhD in chemical engineering at University of Notre Dame. In this role he has supported various technology groups at UOP Honeywell in the development of thermodynamic, kinetic, property prediction, and other models. Currently he supports all of UOP's membrane gas separation technologies, doing model development, process design, techno-economics, and occasionally laboratory work to test and confirm membrane properties. This will be McKay's third year serving as the AIChE Chicago Section treasurer.



Secretary: Nick Marinov



Nick Marinov is the Associate Director of Decision Analysis and Operations Research in the Advanced Informatics and Analysis Division at Astellas Pharmaceuticals. He has dedicated 20 years of scientific leadership service by expanding knowledge in fundamental and applied material and energy sciences.

As a principal investigator and project manager, Nick led R&D and manufacturing activities within his global teams and through collaboration with strategic partners in the following areas: novel machine learning and statistical algorithms creation with simulation in pharmaceutical development and manufacturing, feedstock sensitivities in petroleum processing and coke manufacturing, soot and air toxics pollutant modeling in various combustion applications, and economic evaluation of projects with financial portfolio optimization.

Nick was previously employed with Boehringer-Ingelheim, SunCoke Energy, BP, and Lawrence Livermore National Laboratory. He holds a PhD in Mechanical Engineering from the University of Washington, Master of Science in Applied Mathematics from Northwestern University, Bachelor of Science degrees in Chemical Engineering and Mathematics at the University of Washington, and an MBA in Finance from California State University, East Bay.

What AIChE Means to Me?

Some 10 years ago, AIChE Chicago section decided to publish a series of personal notes from some of our esteemed members of the community regarding their AIChE journey. We are thinking that it might be a good time to restart that series and thought it might be good to provide the links to those prior ones as some of you may have not been members at that time. At the same time, this might also inspire some of you to send us your own AIChE story (local, international, ..., short, long, ...) to be shared with others. Enjoy!

Annette Johnston	May, 2010
Jeff Perl	August, 2010
J. Peter Clark	September, 2010
Shannon Brown	October, 2010
Urmila Diwekar	December, 2010
Alan Zagoria	February, 2011
Dennis O'Brien	March, 2011
Don Chmielewski	April, 2011

AICHE CHICAGO SECTION INFORMATION

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<https://www.linkedin.com/groups/4538581>
<https://www.aiche.org/community/sites/local-sections/chicago>

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**THANK
 YOU!**

AICHe Chicago Section Officers

<i>Chair</i>	<i>Jeff Zalc</i>	<i>Social Media</i>	<i>Sanaz Taghvaii</i>
<i>Chair Elect</i>	<i>Ha Dinh</i>	<i>Treasurer</i>	<i>McKay Rytting</i>
<i>Chair Programming</i>	<i>Christopher Nicholas</i>		<i>Robert Tsai</i>
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2021 Process Development Symposium

June 8-10, 2021, Virtual

Accelerated Process Development & Digitization for Commercial Success

The 2021 Process Development Symposium (PDS) is a place to exchange wisdom, knowledge, tips, and personal experiences in the development and scale-up of chemical and related processes, this year featuring co-programming with the Process Development Symposium Europe. The PDS provides an opportunity for process development professionals from all across the world to discuss their experiences with novel and innovative technologies to trigger radical changes in next-generation processes development and operations featuring presentations from process development professionals from the United States & Europe. This symposium, planned jointly between AICHe and its Process Development Division, is held annually in June. This year's symposium will take place virtually on June 8-10.

<https://www.aiche.org/conferences/process-development-symposium/2021>



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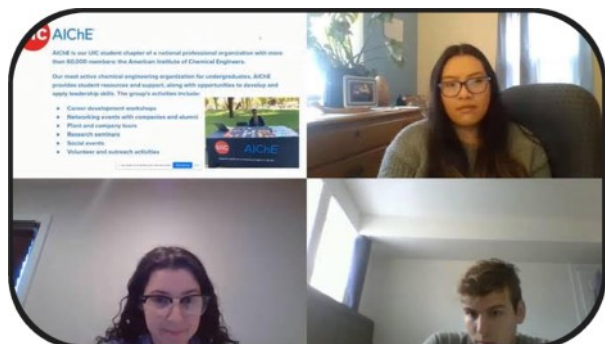
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We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider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

MRC high School Outreach

This year's **AIChE High School Outreach - Engineering Career Day** was hosted virtually in partnership with [Illinois Tech](#) and [University of Illinois at Chicago](#). The event was packed with activities for high school students to explore a career in engineering. We kicked off the event with **Engineering Expos** led by student organizations from IIT and UIC. The high school students got to meet current engineering students and learned about the organization's mission and projects that they are working on. This year's **Lab Tours** were proudly hosted by [Argonne National Laboratory](#), [bp](#), and UIC. The students got to see state-of-the-art laboratories and use of computer simulations for safe operation and commercial optimization. One of the most well-received sessions of the day was **Networking with the Professionals** where the students engaged with professional engineers to ask questions about what it is like to be an engineer. We also had the pleasure of having Dr. Elizabeth Corson, *TomKat Center Post-doctoral Fellow in Sustainable Energy* from Stanford University as our **Keynote Speaker**. She gave an inspiring talk on how she decided to study Chemical Engineering and how it led her to her research today. She strongly emphasized the diversity and versatility of an engineering career and reminds us all that to be an engineer does not mean you have all the answers but you have the ability to apply engineering judgement and trouble-shooting skills being key in the field of engineering. Finally, we closed the event strong with an interactive session with the **Engineering Panel**. Our panel gave students insight on the day-to-day activities of an engineer. Thank you to everyone that participated and special thanks to the team that helped organized this event and making it a success: *Linh Quach, Donald Chmielewski, Akshar Patel, Christopher Converse, Abigail Hartzell, Cameron Kanofsky, Christina Majercak, and Jaylen Taylor*.



Videos of the event are shared on YouTube at <https://www.youtube.com/channel/UCnJl2kR92BrctGHOTLlThLw>

