AIChE Chicago Section

September Newsletter

Chicago Section

www.aiche.org/Chicago

September 2017

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AIChE Chicago

September Meeting

Rapid Advancement in Process Intensification Deployment (RAPID)

US Efforts to Establish a Modular Chemical Process Intensification

Manufacturing Institute

Bond Calloway

Associate Laboratory Director @ SRNL & 2017 AIChE President



Location: Tuscano's

Date: September 13, 2017

Address: 4926 North River Road

Schiller Park 60176, website tuscanosrestaurant.com

Cost: AIChE Global and Local Section Member: \$40

AIChE Global Member: \$45 Non-Member: \$50

Students: \$10 Unemployed/Retired: \$15

Register Here:

http://www.cvent.com/d/9tqj3g/4W

Agenda

5:30—6:30	Registration and social hour with cash bar
6:30 - 7:30	Dinner
7:30 - 7:45	Announcements
7:45 - 8:45	Technical Presentation @ Q&A

Chair's Corner

Welcome to the start of a new programming year! My name is Janet Werner, and I am excited to be serving as Chair for the AIChE Chicago Local Section for the 2017-2018 programming year.

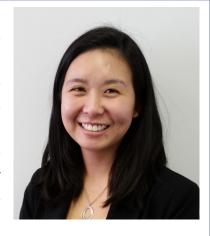
I started getting involved in AIChE during college and was an officer at my school's AIChE student chapter for three years. A few years out of school, several co-workers (including Dan Rusinak and Pat Shannon) were involved in AIChE, and I began volunteering in the Chicago Section. My first AIChE Chicago role was as webmaster, but I then sought out additional levels of responsibility in the local section, the local Young Professionals Committee, and the Midwest Regional Conference committee.

Through the journey of my AIChE volunteering, I was able to meet so many devoted and talented volunteers and leaders. I have been very grateful to learn and develop my technical and soft skills working with past board members, and I am very as excited to be working with our wonderful officer board this year!

My primary goal for this year is to update the local section by-laws, which have not been updated in many years. An ad-hoc committee led by Pat Shannon has been formed to work on this effort. We hope to have an update on this in the next month.

My secondary goal for this year is to work on improving member engagement in the section. Maybe some of you have attended a local section meeting, but are not paid members. Maybe some of you are members of AIChE, but

don't attend our local monthly meetings. Maybe some members attend local monthly meetings, but might be interested in volunteering. Whatever your level of engagement is, I hope



that we as a section can address any questions or concerns you have and help you get started on your own AIChE volunteering journey! Please don't hesitate to contact me or any other board member this year – <u>aichechicago@gmail.com</u>

Before I close, I would be remiss in not acknowledging a topic that has been dominating our news and our thoughts the past few weeks. Hurricane Harvey has not only been a devastating event for our country, but also for our industry. Many of us have friends, family, or co-workers affected by the hurricane. Please keep them in your thoughts, prayers, and as always, be sure to vet any charities through Charity Navigator, the Better Business Bureau, or similar organizations before making donations.

I look forward to seeing and meeting all of you this year!

Janet Werner

September Meeting

Rapid Advancement in Process Intensification Deployment (RAPID) - US Efforts to Establish a Modular Chemical Process Intensification Manufacturing Institute

ABSTRACT

When it comes to improving energy efficiency and lowering investment requirements in the process industries, modular chemical process intensification (MCPI) has been a long-standing concept. In general, though, energy-intensive industries have not adopted MCPI nor deployed it in manufacturing facilities because of several barriers:

- high capital costs and risk involved in committing to new processes
- high complexity of an intensified, modular system, without simplifying standardization techniques
- a lack of software and design tools to develop intensified processes
- minimal workforce knowledgeable in the design and operation of systems.



The US Department of Energy announced an open funding opportunity announcement to establish a modular chemical process intensification institute with the goal of overcoming these barriers. AIChE and partner institutions established the RAPID Manufacturing Institute in support of this funding opportunity announcement. The status, goals and mission of RAPID will be presented in this paper.

RAPID's (Rapid Advancement in Process Intensification Deployment) vision overcomes these challenges and rapidly advances and deploys process intensification (PI) and modular technologies in U.S. manufacturing. And, RAPID will do so while developing a skilled workforce and creating an organization that it sustainable for the long term. RAPID focuses on impactful projects championed by our broad network of over 120 institutions including corporations, universities national labs, nonprofits and other government agencies, while leveraging resources such as Manufacturing Extension Partnerships. All of RAPID's programs will benefit from the proven management of the American Institute of Chemical Engineers (AIChE).

RAPID's mission centers on advancing MCPI technologies to reduce energy consumption, improve process efficiencies and lower investment requirements required by manufacturing. In doing so, RAPID will enhance the competitiveness of U.S.-based energy intensive industries. RAPID's goals include:

- transitioning innovative technologies into efficient, high-performing manufacturing capabilities that meet DOE metrics
- developing an advanced MCPI workforce, while strengthening U.S. competitiveness
- generating a diverse supply chain that includes small and medium-sized suppliers
- creating a sustainable and inclusive industrial network for continued technology development, deployment and commercialization
- becoming the globally-recognized leader in MCPI technologies

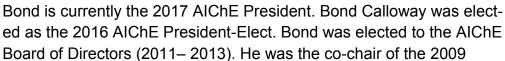
Critical success factors include development of modular system standards; simulation and modeling tools for the design and MCPI capital cost estimation; educational programs to train engineers, technicians and operators; and risk reduction through testbeds for scale-up.

September Meeting

Rapid Advancement in Process Intensification Deployment (RAPID) - US Efforts to Establish a Modular Chemical Process Intensification Manufacturing Institute

BIOGRAPHY

Bond Calloway is an Associate Laboratory Director at the Savannah River National Laboratory, where he leads a team of scientists and engineers conducting energy research. He has more than 30 years of industrial experience in research and development, design, construction, and operation of nuclear/chemical plants.





AIChE Annual Meeting and the 2014 Natural Gas workshop. Bond currently serves on the AIChE Center for Energy Initiatives Executive Board; the Environmental Progress & Sustainable Energy Journal Editorial Board; the Chemical Engineering Progress (CEP) Editorial Board; the Public Affairs and Information Committee; and as a director of the Nuclear Engineering Division and the Savannah River Local Section. Bond led the RAPID initiative in collaboration with AIChE staff and Ga Tech which culminated in AIChE being awarded a 140 million dollar project to run the RAPID Manufacturing Institute for the Department of Energy.

He also served as member of AIChE's Research and New Technology Committee (2008–2013), including two years as chair; on the Chemical Engineering Technology Operating Council (2008–2012); on the Executive Board of the Program Committee (2009–2010); and on the Nuclear Engineering Div. Executive Committee (2004–present), including three years as chair.

Bond received AIChE's Herb Epstein Award (2008) and Robert E. Wilson Award (2014); the U.S. Dept. of Energy Sustainability Award (2011); and a R&D 100 Award for contributions in engineering and energy research (2001). Bond Calloway was named the Auburn University Chemical Engineering Department's Outstanding Alumnus in 2016.

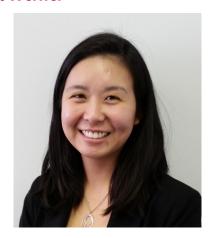
A graduate of Auburn Univ. and a Fellow of AlChE, Bond has authored more than 50 papers on various aspects of energy research and manufacturing.

Registration and Information:

http://www.cvent.com/d/9tqj3g/4W

Congratulation to 2017-2018 Chicago Section Officers

Chair: Janet Werner



Chair Elect: Mike Schultz



Treasurer: Joe Guido,



Secretary: Nicholas Guzman



Co-Vice Chair Meeting Program:

Beth Carter



Co-Vice Chair Meeting Program:
Robert Tsai



Congratulation to 2017-2018 Chicago Section Officers

Co-Vice Chair House Committee:

Arwa Hasan



Director at Large: Adam Kanyuh



Director at Large: Ellen Kloppenborg

Co-Vice Chair House Committee:

Asmara Soomro





Director at Large: Dennis O'Brien



Connect with members & participate in discussions on Engage!

Check out AIChE's newest 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.

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, offering Continuing Educations
 Units and PDHs
- Access to CareerEngineer—a comprehensive job site tailored to chemical engineers
- Access to the AIChE eLibrary—a wealth of information from Knovel Life Sciences and the McGraw-Hill AccessEngineering Library collections

View COMPLETE benefits

AIChE Chicago has a new look!

We are pleased to reveal our newly website for AIChE Chicago. Feel free to Take a Peek.

We hope you will visit the new website at our new address, www.aiche.org/Chicago and while you are there, let us know what you think! We know there is still work to do, and in the coming months, we hope to continue improving the site so that it best serves how we communicate with you.



Thank you for being part of AIChE Chicago!

www.aiche.org/Chicago

AICHE Chicago is now on Facebook and LinkedIn!



Like us on Facebook <u>www.facebook.com/AIChEChicagoSection</u>



Join our group on LinkedIn!

Congratulations to "AIChE 35 Under 35" Chicago Members

Betul Bilgin

Clinical Assistant Professor

University of Illinois at Chicago (UIC)

Imagine being thrown into teaching a senior design course two weeks into the semester with no course materials or prior experience teaching the course — and on top of that, your school's accreditation is being evaluated. This is the seemingly insurmountable challenge Bilgin was faced with during her first year of teaching at UIC. She not only overcame this challenge, but earned praise from the accreditation program evaluator for her dedication, effectiveness, and enthusiasm.



Despite her obvious resourcefulness and adaptability, there is never enough time for Bilgin to meet the high standards she sets for herself. She explains, "There is always a lot more that I really want to do and bring to my classroom. ... I wish I had more time to learn about effective teaching techniques and tools."

Bilgin is working to develop the next generation of chemical engineering students. She combines art and science in demonstrations for grade-school students to teach children about the profession in a fun and engaging environment. Although students of all ages have learned much from her, Bilgin says, "learning from them is a wonderful gift."

FUN FACT >> Bilgin's favorite book is How to Talk so Kids will Listen and Listen so Kids will Talk.

Beth Carter

Lead Development Specialist

Honeywell UOP

Carter likens her career to her undergraduate senior design course, but instead of being simply conceptual, "the exciting thing is that processes that I help develop actually get built by customers!" she explains. As a lead development specialist in the refining development group at Honeywell UOP, she designs novel processes, equipment, and catalyst technology solutions for petroleum refineries.



It was her experience working with "some of the best engineers and scientists in the world ... solving hard energy technology problems" as an intern at Honeywell that swayed her toward chemical engineering. She credits her time in field services, where she oversaw unit startups, turnarounds, and catalyst loadings, with forcing her "to become a problem-solving engineer who has seen process technology working (and not working!)." She is proud of the impact she has already made on energy technology development, but hopes to leave a larger mark by inventing and developing clean, reliable, affordable, and sustainable energy solutions.

FUN FACT >> Carter gets up every day at 4:45 AM to run.

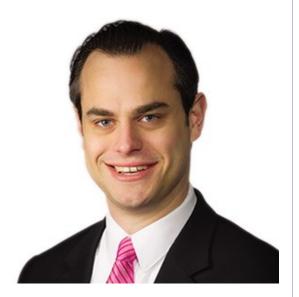
Ben Freireich

Technical Director

Particulate Solids Research, Inc. (PSRI)

It is probably safe to conclude you were born to be an engineer if you, like Freireich, have "used a system of differential equations to determine how many pizzas to order." The technical director at Particulate Solids Research, Inc. (PSRI), Freireich has an enthusiasm for science, engineering, and learning that brings to mind Bill Nye's character on his namesake science program.

With a background in mechanical engineering, Freireich found his way to chemical engineering through his specialization in particulate mechanics. In his current role, he is responsible for guiding all of the research programs at



PSRI, which focus on the application of particle technology fundamentals with a specific focus on fluidized systems.

Freireich describes the satisfaction of seeing his work verified in real-world operations: "There is not a single more satisfying feeling than when the model fits the data." In one such scenario, he had to exercise his engineering judgment to quickly develop a process model for an extreme and difficult-to-measure process, and found plant performance to be within 10% of the model predictions.

For someone who has found much academic and professional success, it may be surprising to learn that Freireich struggled to read, finding out in high school that he was reading at an elementary-school level. Although he was discouraged from applying to a competitive engineering program, his convictions and lots of reading helped him to overcome this obstacle.

FUN FACT >> Freireich communicates best through pictures, and he keeps at least two colored pens on him at all times.

Ellen Kloppenborg

Lead Development Specialist

Honeywell UOP

Kloppenborg is a lead development specialist at Honeywell UOP, where she develops preliminary process design concepts and material balances based on yield and performance estimates for new technologies. She evaluates and optimizes processes using process simulation software and performs techno-economic analyses.

Working on brand-new processes and designs comes with its obstacles. Kloppenborg explains, "The most challenging part of my job is figuring out how to do things in which I have little



prior experience. It's fun to learn new things, but does require more effort and good resources." Kloppenborg luckily has access to many good resources in her colleagues. "They're a highly intelligent and skilled group of people who can work together to solve interesting and challenging problems. At the same time, they also take the time to teach others and share knowledge. I've learned so much from working with them," she says.

Kloppenborg is also working to help others through her participation on Honeywell's Educational Outreach committee, where she has helped to coordinate various activities and challenges. She is active in AIChE's Chicago local section and has organized the High School Outreach program for the Midwest Regional Conference for the past three years.

FUN FACT >> Kloppenborg loves to try new recipes in the kitchen.

Meagan Lewis

Senior Product Line Manager

Honeywell UOP

Lewis knew from the beginning of her studies in chemical engineering that she would never have a purely technical role. Starting her career in field services, she earned her MBA and is now lending her technical skills to the business and marketing side at Honeywell UOP. She manages the product portfolio for light olefins petrochemical catalyst, and partners with international teams to identify opportunities, generate business cases for markets, and implement market plans worldwide.



Working internationally and in cross-functional teams can be tedious for some, but Lewis likes that it helps her to get to know her colleagues and exposes her to a range of perspectives. She explains that marketing products to appeal to international markets is

challenging, but has given her the opportunity to learn about the values of different business cultures.

In both her career and personal life, Lewis aims to lead by example. As a working mom who also serves on AIChE's Board of Directors, she hopes to show other women and her own children that you can find time for work, a personal life, and to volunteer.

FUN FACT >> Lewis says "Rabbit, Rabbit" on the first of every month.





Carissa Kloncz



Chair - Eleftherios (Larry) Avtzis



Michael Nolan



Vice-chair: Kimberly Douglas



Membership Committee:

....

Rohan Shah and

Administrator:

Andrew Radencich

Programming Committee:

Asmara Soomro.





Ruben Barajas



2017 AIChE Board of Director Election

Dear Members.

It's election season and time for you to decide who will be on the Board for 2017! Online voting are open August 28 until 11:59 pm, October 2, 2017.

https://www.societyelection.com/SocietyElection/AIChE/index.asp

Paper ballots for the election of AIChE's 2017 President-Elect, Secretary, and Directors were mailed to you.

Profiles of the candidates for this year's election are available at this newsletter and at

https://www.aiche.org/about/governance/elections/2017-board-directors-election

Here you will find the candidates' bios and platform statements that outline their view for AIChE. Additionally, we've asked the candidates to answer a few questions to get to know them better. Their responses will be posted on <u>ChEnected</u>, one each week, starting September 8. The deadline to receive your vote is October 2, 2017, 11:59 p.m. EDT.

In order to be eligible to vote, you must be an active member and have paid your dues for 2016. If you choose to participate in the election online, you will need your Member ID, which will serve as your Personal Identification Number. If you have any questions regarding your member information, please contact the AIChE Member Service Center toll-free at 800.242.4363 (U.S.) or visit www.aiche.org/phone (outside U.S.) to obtain your country's number, or emailwww.aiche.org.



Slate of Candidates

For President-Elect

John G. Ekerdt	University of Texas at Austin
Kim L. Ogden	University of Arizona
For Treasurer	
Joseph D. Smith	Missouri University of Science and Technology
Rosemarie Wesson	City College of the City Uni-

versity of New York

For Director

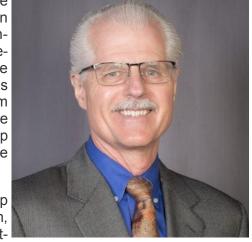
Kristi S. Anseth	University of Colorado
Raymond A. Cocco	Particulate Solid Research, Inc.
Anthony F. Fregosi	Cornerstone Chemical Co.
Marianthi G. Ierapetritou	Rutgers University
Alon V. McCormick	University of Minnesota
Alon V. McCormick Lori T. McDowell	University of Minnesota Matheson
	·

For President-Elect

John J. Ekerdt

John Ekerdt is the Dick Rothwell Endowed Chair and the Associate Dean for Research in Engineering at the Univ. of Texas at Austin (UT-Austin). He received his BS from the Univ. of Wisconsin-Madison, and his PhD from the Univ. of California, Berkeley. He began teaching at UT-Austin in 1979, where he has published more than 300 articles, written reaction-engineering textbooks, and holds seven patents. Among John's honors are the Stine Award from AIChE's Materials Engineering and Sciences Div. (MESD) and the ASEE Chemical Engineering Div. Chemstations Award for leadership in chemical engineering education. He is a Fellow of AIChE and the American Association for the Advancement of Science.

John's service to AIChE over 35 years includes several leadership positions. He was a founder of the Balcones Fault (Texas) Section, Meeting Program Chair for the 1991 Spring and 2004 Annual meet-



ings, MESD Chair (2002), member and Chair of the Chemical Engineering Technology Operating Council (CTOC; 2005–2010), and a member of AlChE's Board of Directors (2012–2015).

Statement:

I am honored to be nominated for AIChE President-Elect. I have had the privilege of working with the many dedicated staff and volunteers who enable the Institute to realize its vision and mission. AIChE's vitality and sustainability depend on growing this base of volunteers. Chemical engineering practice and the profession are constantly evolving; we graduate students with essentially the same core fundamentals who quickly disperse into an ever-changing global economy. AIChE's challenge is to continue providing a home, a purpose, and a community to chemical engineers as they specialize and are drawn to other professional communities of practice. If we are to play a leadership role in shaping the future, we need an organization that is dynamic, engages the broadest constituency, and renews itself by attracting, retaining, and developing young professionals.

I bring a sense of duty to serve others. If elected, I will work to:

- increase the relevance and value of the Institute's products, programs, and services to the varied constituents who represent the membership and the potential membership
- increase and sustain membership by offering compelling programs and services that provide for professional and technical growth
- expand the portfolio of programs and services to address the entire career span of potential members
- advance traditional and nontraditional methods of programming designed to engage more practicing industrial engineers in AIChE meetings, where we all can benefit from the exchange of ideas and perspectives
- grow capacity among young professionals and develop future Institute leaders.

I will be happy to receive comments at ekerdt@utexas.edu.

For President-Elect

Kimberly Ogden

Kimberly Ogden is Professor of Chemical and Environmental Engineering and the Director of the Institute for Energy Solutions at the Univ. of Arizona. She is part-owner of Ogden and Associates, LLC. Her research focuses on bioreactor design to solve a variety of problems — from production of pharmaceuticals to bioremediation to biofuels. Most recently, she is working on integrated systems to produce fuel, food, and specialty products simultaneously. She is the principal investigator for a Regional Algal Feedstock Testbed project funded by the U.S. Dept. of Energy. She has been passionate about AIChE since chairing a regional student conference as an undergraduate at the Univ. of Pennsylvania, where she was mentored by faculty who introduced her to the benefits of AIChE. She now enjoys carrying on that tradition.

After completing her BS degree, Kim continued her education at the Univ. of Colorado, where she received her MS and PhD in chemical engineering. She did postdoctoral research at Los Alamos National Laboratory. Kim's first leadership position in AIChE was as Chair of the Student



Chapters Comm., which led to being part of the Career and Education Operating Council (CEOC) and then election to the AIChE Board of Directors and the AIChE Foundation Board of Trustees. She is a Fellow of the Institute and was Institute Secretary from 2010–2013. Currently she is involved in AIChE's Rapid Advancement in Process Intensification Deployment (RAPID) initiative, the Education and Accreditation Comm., and the International Society for Water Solutions.

Statement:

AIChE has changed significantly since 2004 when I was first elected to the Board of Directors. Today, we are a vibrant and diverse professional organization that is taking part in exciting new initiatives such as RAPID. Change is always exciting but comes with a set of challenges. The key is to continue to meet the needs of all of our members, new and old, while maintaining our core values.

Education, technology groups, safety, and societal impact form the foundation of AIChE, but our specific activities change. I will continue to foster collaboration between industry, government and academia. Together we will strive to 1) assure that AIChE Academy offerings are timely and relevant; 2) encourage programming that addresses engineering Grand Challenges such as the water-energy-food nexus; 3) ensure that our activities for young members, such as the Chem-E-Car and Beer Brewing competitions, are fun but safe; and 4) engage in the societal roles of AIChE as national and global advocates.

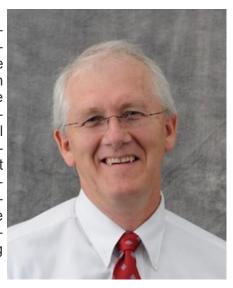
My strategy is to foster leadership, especially of our young professionals, by encouraging members to fulfill volunteer opportunities within AIChE. I am honored to be nominated for President-Elect and look forward to serving you.

Please contact me at ogden@email.arizona.edu with your thoughts or questions.

For Treasurer

Joseph D. Smith

Joseph Smith holds the Laufer Energy Chair at Missouri Univ. of Science and Technology, where he directed the Energy Research and Development Center and founded two industrial consortia. He has more than 28 years of diversified experience in academia and industry. Smith has published more than 50 papers, given more than 80 conference presentations, and holds eight patents with four pending. He has contributed chapters to the John Zink Combustion Handbook, the Industrial Burner Handbook and recently to Perry's Chemical Engineers' Handbook and the Encyclopedia of Chemical Technology. He has significant experience in the oil and gas and fossil energy industries, including developing and applying computational fluid dynamics for coal combustion, biomass gasification, and process heater/gas flare optimization. He is also a serial entrepreneur having started and managed three companies, with his most recent venture focused on developing and applying advanced sensor technology to monitor flare emissions.



Statement:

Our profession thrives on building energetic collaboration between students, young professionals, and long-time members. Vibrant local sections combine the enthusiasm of youth with the experience of long-time members. Increasing international membership and our focus on advanced manufacturing have brought significant recognition to AIChE. Success brings new challenges to continue AIChE's expansion. My time serving as chair of two local sections (Midland, MI, and Tulsa, OK), together with my work in the Career and Education Operating Council (CEOC), and my service as Institute Director (2013–2016) and Treasurer (2017) give me the experience needed to successfully meet these new challenges and help AIChE continue to grow.

If elected Treasurer, I plan to:

- increase focus on developing vibrant local sections and student chapters
- increase inclusion through more regional and virtual meetings
- expand e-learning and certification by expanding use of mobile apps
- increase diversity via outreach that promotes awareness among minorities of career opportunities in chemical engineering
- expand the role of AIChE in Washington DC, to leverage our combined experience in problems related to sustainability and the water-energy-food nexus
- increase leadership development by providing more opportunities in meaningful positions
- provide increased career development through social media.

Based on my AIChE service, I understand the commitment required to serve as Treasurer. If elected, I will be fully engaged and look forward to giving my time to strengthen our already great professional society. I would appreciate your vote and support. Please contact me if you have any questions: smithiose@mst.edu.

For Treasurer

Rosemarie Wesson

Rosemarie D. Wesson recently joined The Grove School of Engineering at The City College of the City Univ. of New York (CCNY) as Associate Dean for Research and Professor of Chemical Engineering. Prior to joining CCNY, Rose spent almost 15 years as a program director at the National Science Foundation (NSF). Rose has also worked as a senior research leader in Dow Chemical Co.'s Corporate Materials Science R&D. Rose received her BS in chemical engineering from MIT, and her MS and PhD, both in chemical engineering, from the Univ. of Michigan, and is a registered Professional Engineer. She has been an active member of AIChE since 1988. Some of her AIChE leadership experiences include service on AIChE's Board of Directors (2012–2015) and as Treasurer of the Management Div. (2007–2011). She has been the AIChE Coordinator of the Washington Internships for Students in Engineering (WISE) Program (2010–2015), and is an AIChE Fellow.



Statement:

The Treasurer is the guardian of the Institute's financial assets, and is involved in all major AIChE decision-making and actions, and, as such, must have a sound understanding of the organization and its challenges. Over the years, I have been deeply involved in, and have witnessed the growth and development, of the Institute.

During my recent tenure on the AIChE Board of Directors, I chaired an eleven-member task force to examine the governance processes of the Institute. The task force made several recommendations for improved governance. As Treasurer, I look forward to being a part of the continued improvement of the governance processes of the Institute.

If elected as AIChE Treasurer, my first priority will be to maintain responsible stewardship by providing guidance on the financial health of the organization and potential impact of operating decisions. I also feel that it is crucial to continue to attract and retain students and young professionals to and in the Institute in order to remain fiscally solvent. As Treasurer and member of the Executive Committee of AIChE, I will strive to continue the growth of the Institute through continued outreach to young professionals, and work to promote interactions between students, young and mid-career professionals, and Fellows.

As Treasurer of the Management Div. of AIChE, I provided the leadership to maintain and monitor the spending of the Division and provided advice on the financial health of the Division. I also led the effort for the Management Div.'s support of the AIChE WISE Internship Program in an effort to continue to grow the Division and the Institute. As Treasurer of AIChE I would continue such efforts.

If you'd like to discuss any of these ideas, my email is rwesson@ccny.cuny.edu. I'd appreciate your vote for AIChE Treasurer. Thank you for your consideration.

Kristi S. Anseth

Kristi Anseth is Distinguished Professor of Chemical and Biological Engineering and Associate Faculty Director of the BioFrontiers Institute at the Univ. of Colorado. She is an elected member of the National Academies of Engineering, Medicine, Sciences, and Inventors, and a Fellow of the American Association for the Advancement of Science, American Institute for Medical and Biological Engineering, Materials Research Society, and AIChE. She has been an active member of AIChE since 1989 and has served on the Chemical Engineering Technical Operating Council (CTOC; 2002-2005) and as a member and Chair of the Awards Selection Subcommittee (2010-2015). Anseth has been recognized with two Institute awards, the Colburn and Professional Progress awards; the Society for Biological Engineering's James Bailey Award; and the Food, Pharmaceutical and Bioengineering Div. Award. She also serves as an editor for Biomacromolecules, Progress in Materials Science, and Biotechnology & Bioengineering.



Statement:

I attended my first AIChE meeting in 1991, as an undergraduate student, where I was fortunate to network with a broad spectrum of chemical engineers and learn about opportunities in our profession. First impressions are lasting, and now, more than 25 years later, I find myself in the position of wanting to give back to AIChE and its members.

AIChE has a history of exceptional volunteer leadership, and I have been fortunate to learn from many of these individuals, both during my service on CTOC and the Awards Comm. I would be honored to serve on the Board of Directors, and I believe that my background and past experiences provide a unique compass. As a Director, I would focus on programs and people that not only build AIChE's technical excellence, but also respond nimbly to new opportunities.

With respect to people, the challenge is to not just serve AIChE members, but to better engage them in activities that match their passion. AIChE's 50,000+ members have skills and expertise ranging from technical to leadership to advocacy to education, but multiple partnerships are needed to build new initiatives and programs, along with efficient avenues to implement the best ideas. This is especially important as our profession grows in number and diversity. I recognize that our members are highly successful, have numerous commitments, and are balancing personal and professional lives. I am a wife, mother, engineer, editor, teacher, writer, and mentor, and I value your time. Thus, I advocate focusing on programs with a high benefit to time ratio, and services that help us stay abreast of technical advances across a broad landscape.

In closing, my vision is to serve AIChE by engaging and nurturing people and programs, those that help the Institute remain nimble, inspire the next generation of chemical engineers, and provide a professional home where members can communicate, innovate, and improve the world.

Raymond A. Cocco

Raymond (Ray) Cocco is President and CEO of Particulate Solid Research, Inc. (PSRI), a consortium-based research and development company focusing on multiphase flow, with industrial members located throughout the world. Ray received his BS from the Univ. of Florida and his PhD from Auburn Univ., both in chemical engineering. He is Chairman of the Univ. of Florida's Chemical Engineering Advisory Board, a member of the Auburn Univ. Chemical Engineering Advisory Board, a board member of University College London's Centre for Nature Inspired Engineering, a past chair of AlChE's Particle Technology Forum, and a past member of AlChE's Chemical Engineering Technology Operating Council (CTOC). He is also Chairman of the World Congress on Particle Technology VIII (2018), and is on the editorial boards for Powder and Bulk Engineering and Powder Technology. He is the author of more than fifty publications.



I am proud of the accomplishments of our AIChE community. Yet, our work is not done. Our strong chemical engineering community is needed more than ever to solve many of today's pressing problems in energy, water, health, and environment. Fortunately, AIChE and its members are well-suited to shape the future through global leadership and interdisciplinary teams.

To achieve this, we need effective continuing education and training programs with easy-to-access and easy-to-use tools for strong job placement, peer-to-peer communication, and technology transfer. As an AIChE Board member, I will bring my experiences in working with industry, government, and academia to capitalize on the full potential of AIChE and its community. I will focus on further developing AIChE to enhance key existing programs and promoting pivotal initiatives. In short, I will work to:

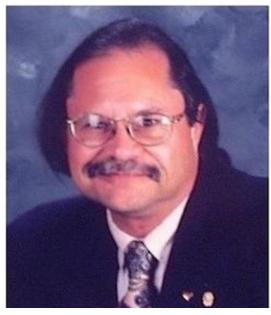
- provide better collaboration with global technical organizations, with emphasis on member-to-member interactions and the advancement of excellence in chemical engineering practice
- enhance key programs to provide more synergy between students, young professionals, and senior members
- elevate the prestige of AIChE's conferences through the promotion of emerging topics and greater collaboration between technical communities and organizations
- provide members with easily accessible tools for technical and leadership skills, including presentation skills, leadership development, project management, technical writing, and patent applications
- continue to expand the resources available on the AIChE website, allowing it to become the go-to source for job searches and recruiting, mentorship, technical experts, and chemical engineering news

improve our involvement with public policy and public education.

Anthony F. Fregosi

Anthony Fregosi is a Senior Manufacturing Systems Engineer at Cornerstone Chemical Co. and a Fellow of AlChE. He earned his BSChE from the Univ. of Florida. As a member of his company's Information Technology department, Anthony supports multiple software systems with an emphasis on the plant's data historian system. Over his career, he has held positions as a process/production engineer and process safety/responsible-care coordinator with both OxyChem and American Cyanamid/Cytec Industries/Cornerstone Chemical.

Anthony first joined AIChE as a student member, and upon graduation joined the Peninsular Florida Section, where he served as Chair. Upon his relocation to New Orleans, Anthony joined the New Orleans Section, which he has chaired several times. He led the efforts to revitalize the Section following Hurricane Katrina in 2005. At the Institute level, Anthony has served as the General Arrangements Chair for the Spring Meeting (2002, 2003 and 2008). As a member of the 2014 President's Blue Ribbon Task



Force on Local Sections, he led efforts to formalize local section performance metrics. In 2015, Anthony served as Chair of the Career and Education Operating Council (CEOC). He currently serves on AlChE's Membership, Licensing and Professional Development, and Admissions committees.

Statement:

I have been a lifelong active member of the Institute and continue to learn about our professional home. As such, I believe that our student chapters and local sections are the backbone of membership growth and support for the organization. I will always keep these entities in the forefront and provide them with the support they need to continue to develop and prosper. If these entities are the backbone, then our young professionals are our future. In only a few short years, AIChE's Young Professionals group has emerged as a vibrant and motivating force to be encouraged and supported. At the other end of the spectrum are our Fellow members. They are in the position to offer sage council and keep the organization grounded in its historical roots. I will be sure to seek out their advice.

I will also strive to improve the connections between our local sections and our division and forums. Divisions and forums offer a wealth of content that can support and enhance section programming, and provide a service to members they may not have locally.

As a member of the Board of Directors, I would continue to make our Institute the global leader for chemical engineers throughout our members' careers — from school through retirement and everywhere in between. The fact that we are seeing large growth in our student membership and global growth in our local section membership is a sign that we are on our way to achieving such a goal.

I shall always make my deliberations with an eye toward fiscal responsibility. If you would like to communicate your ideas to me, please do not hesitate to contact me at affgator@aol.com.

Marianthi G. lerapetritou

Marianthi lerapetritou is Professor and Chair in the Dept. of Chemical and Biochemical Engineering at Rutgers Univ. She has 25 years of research experience in process systems engineering, more than 200 journal publications, has graduated 22 PhD students, and has received numerous awards for her work in applied modeling and optimization including the Computing and Systems Technology (CAST) Div.'s Award for Computing in Chemical Engineering (2016) — the highest distinction in the systems area of AIChE. She is also a Fellow of AIChE.

Statement:

I have been an active member of the CAST Div. since 2006, when I chaired and organized multiple sessions of the Division and became involved as coordinator of Area 10A (Design), with responsibility for overseeing the organization of multiple (12) meeting sessions and coordinating co-sponsorship with other programs. In 2009, I was elected a director of



CAST, and I initiated the formation of the student presentation award to encourage and promote student participation in the Institute. In 2011, I was elected Vice Chair of CAST with responsibility for managing the Division's awards and organizing CAST's annual reception and dinner. As Chair of the Division from 2013 to 2014, I was responsible for overseeing multiple activities and spearheading initiatives to increase CAST's membership.

In addition, I have been actively involved with Computer Aids for Chemical Engineering (CACHE) since I was elected academic trustee in 2005. In that role, I was involved in the organization of the 2008 Foundations of Computer Aided Process Operations Conference, as a member of the Systems Biology Task Force, and in various web activities. From 2012 to 2014, I served as Vice President of CACHE, and was instrumental in restructuring the task forces and re-shaping the direction of CACHE. From 2014 to 2016, I served as President of CACHE. During that time I emphasized the trustees' engagement, outreach activities, and the involvement of outside talent to help with the new strategy and vision of CACHE.

Of particular importance to me is to actively engage our constituents (AIChE members) and to work to address their changing needs, but also to help constituents better understand the mission and objectives of AIChE, and to help grow the membership. Towards that target, I would like to encourage new activities and establish avenues to communicate more effectively the importance of the Institute to a wider audience, reaching out especially to young professionals, student chapters, and underrepresented minorities. I am very passionate about increasing the participation of women at all levels of the Institute. To accomplish that goal I will work to provide more recognition for women engineers and improve AIChE's infrastructure and services targeting women's needs as related to work-life balance.

Alon V. McCormick

Alon McCormick has taught at the Univ. of Minnesota since 1989, following his postdoc (chemistry) and PhD (chemical engineering) at UC Berkeley, and BS (chemical engineering) at Tulane. With over 40 PhDs and postdocs, he has published 190 papers addressing the mechanisms and kinetics of nanostructural processes. Alon has held a range of AIChE positions, serving each of the three Operating Councils — Chemical Engineering Technology (CTOC), Career and Education (CEOC), and Societal Impact (SIOC). He currently serves as Past-Chair of CTOC and as Secretary of the Education and Accreditation Comm. He has been CTOC's liaison to the International Comm. and to SIOC — collaborating on SIOC's Diversity and Inclusion Task Force, helping to arrange LGBT+ Ally workshops. He has served as Meeting Program Chair, on the Executive Board of the Program Comm., in various leadership roles in the Materials Engineering and Sciences Div., in programming positions back to 1997, and has been an AIChE member since 1983.



At Minnesota, he has chaired university-wide committees (education policy and graduate fellowships) and has served on many others re-

lated to research resources (supercomputing, shared-instrumentation), education and community (advising, curriculum requirements, diversity concerns), and consultative to the Dean and Provost. Within the discipline, his service has included: director of ChE undergraduate studies, Tau Beta Pi advisor, and coordinator for an industry-university research program in nanostructural material processes.

Statement:

I hope to bring to the Board's work a broad perspective gained from the honor of serving in many facets of AIChE operations. In particular, I would work to assure that:

- AIChE's programs and services reflect the excellence and range of our profession.
- AIChE offers full value as the professional home for diverse members sharing the professional identity
 of chemical engineer of varying specializations, work titles, degree titles, and length of experience.
 We need to convene thought-leaders with students and young professionals from the U.S. and internationally, and from industry, academia, and government. We need to engage industry members at all career stages, providing clear benefits as well as opportunity to help shape the future (e.g., informing process safety education).
- AIChE offers the inclusive climate needed and deserved by students and young professionals. The
 entire profession benefits by broadening participation and attracting talent from all corners. I am personally grateful for allies creating a more accepting environment for LGBT+ engineers. Each AIChE member has a role to play in the inclusion of women and all minority groups historically underrepresented or
 marginalized. We need to ensure that all ChEs find welcome in their professional home.

Please feel free to contact me through AIChE Engage.

Lori T. McDowell

Lori McDowell is currently Director of Business Development for Matheson, with responsibility for growing the refining, chemicals, and energy sectors. Prior to joining Matheson, Lori worked at Praxair and W.R. Grace. She received a BS in chemical engineering from the Univ. of Pennsylvania, an MS in environmental engineering from CalTech, and a PhD in chemical engineering from the Univ. of Delaware.

Lori has been active in AlChE since 1992. She has held leadership roles in the Fuels and Petrochemicals Div. including Chair, Programming Chair, Communications Chair, and she is currently Treasurer. Lori was a member of AlChE's Chemical Engineering Technology Operating Council (CTOC) and the Executive Board of the Program Comm. She was Co-Meeting Program Chair (MPC) of two AlChE Spring Meetings, and served as MPC of the 2017 Spring Meeting. She is also Vice Chair of the Admissions Comm. Outside AlChE, Lori has served on the Board of the National Business Development Association, and was President and Board Member of the Women's Energy Network.



Statement:

As AIChE members, we have a few things in common: we decided to become a chemical engineer; we joined AIChE; and we want to get the most out of our membership. As an AIChE Board member, my goals are related to those three things, and fit well with AIChE's strategic plan.

First, I would like to work with AIChE to enhance the public's understanding of chemical engineering. I want to make sure that as many talented young people as possible have a good reason to become chemical engineers, as we did. I want to make sure that the public understands and respects how important chemical engineers are to their quality of life. This is a challenge for AIChE, but one we should embrace.

Second, there are many more chemical engineers than there are AIChE members, and I would like to change that. AIChE needs to be the premier organization for chemical engineers. My goal is to help AIChE address the needs of all chemical engineers. We need to make sure AIChE is a fully inclusive organization and we need to improve our diversity. The recent Professional Development Workshop held at the 2017 Spring Meeting was one step, and there are many more things we can do. My volunteer work with women's organizations and non-technical groups will allow me to help in this area.

Lastly, we need more active AIChE members. We need to be creative, and to make sure we offer something for everyone. Active members get the most from AIChE. And, as a member active in many areas of AIChE, I am well suited to helping achieve that goal.

I am excited about the opportunity to serve on the AIChE Board, to help AIChE meet its strategic objectives and become an organization for all chemical engineers. I invite you to email me with questions, suggestions or comments at lmcdowell@mathesongas.com.

Timothy J. Olsen

Tim Olsen is an AlChE Fellow and has 27 years' experience in the refining industry, of which 19 years have been with Emerson Automation Solutions. He is a refining consultant within Emerson's global refining industry solutions group, where he supports the company's technical and business strategy. Prior to Emerson, Tim was with UOP for eight years as a technical advisor on refinery startups.

Tim is a past chair of AIChE's Fuels and Petrochemicals Div., and was the overall Meeting Program Chair (MPC) for the 2014 AIChE Spring Meeting in New Orleans. He is currently a member of AIChE's Chemical Engineering Technology Operating Council (CTOC), the Center for Energy Initiatives, the Fuels and Petrochemicals Div., the Upstream Engineering and Flow Assurance Forum, and the South Texas Section. He is active with programming at the AIChE Spring, Annual, and Southwest Process Technology conferences.



Tim received the Fuels and Petrochemicals Div. Distinguished Service Award (2015) and the George Lappin Program Comm. Service Award (2017). He obtained a BS in chemical engineering from Iowa State Univ. and an MBA from the Univ. of Iowa.

Statement:

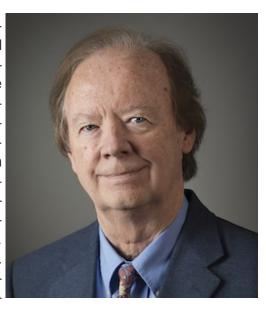
Early in the 2000s, I started presenting and chairing sessions for the Fuels and Petrochemicals Div., which eventually led to more leadership roles including Chair of the Fuels and Petrochemicals Div. and overall Division Programming Chair. One of the key initiatives I was proud to be part of was the inception of AIChE divisions participating with the Young Professional (YP) Comm.; the Fuels and Petrochemicals Div. was the first and only division to participate in the YP mixer back in 2010. Since the inception, other divisions and forums have reached out to YPs to welcome their involvement.

If elected to the AIChE Board of Directors, I will continue to encourage and guide young professionals and students to be active in AIChE. The AIChE community is a great place to receive mentorship and sound advice for career and community development, and to generate long lasting friendships. In addition, I will continue to promote collaboration between industry and academia. As an example, I was recently able to provide industry insight at the Univ. of Illinois at Chicago by presenting a talk for Dr. Caracotsios' senior-level process control class. I will encourage other industry members to pursue similar actions related to mentoring.

I will also encourage passive AIChE members to become more active, since there are many ways to stay connected through AIChE — in-person and virtually. I will utilize my extensive experience with AIChE and passion for the organization to solicit and act upon your input for how AIChE can better serve your needs. I welcome your comments and questions about AIChE at Tim.Olsen@Emerson.com.

Mark A. Stadtherr

Mark Stadtherr is Research Professor in the Dept. of Chemical Engineering at the Univ. of Texas at Austin and Keating-Crawford Professor Emeritus in the Dept. of Chemical and Biomolecular Engineering at the Univ. of Notre Dame. Previously, he was on the chemical engineering faculty at the Univ. of Illinois at Urbana-Champaign. His primary teaching interests are process safety, process design, ecological and environmental modeling, and optimization. Mark has published more than 180 peer-reviewed research papers in the areas of optimization and modeling, and was recognized with the AIChE CAST Div.'s Computing in Chemical Engineering Award (1998) for his pioneering work on applying advanced computer architectures in chemical engineering computing. As an educator at Notre Dame, he received the 2008 James A. Burns Award, which recognizes exemplary contributions to graduate education at the University. Mark has a PhD in chemical engi-



neering from the Univ. of Wisconsin and a BChE from the Univ. of Minnesota.

Statement:

I have been active in AIChE for more than four decades, beginning as an undergraduate at the Univ. of Minnesota. During my career, I have had the opportunity to serve AIChE in a variety of significant leadership roles, including Chair of the Area 10C (Computers in Operations and Information Processing) Program Comm. (1990–1992), Chair of the CAST Div. (2002–2003), Chair of the Publications Comm. (2007–2010), and Chair of the Chemical Engineering Technology Operating Council (CTOC; 2014). I believe that today's AIChE is a valuable and globally influential professional society. If I have the honor to serve on the Board, I will use my leadership experience to further strengthen AIChE. Some of the areas that I will focus on include:

- increasing the impact of AIChE as a global leader in addressing Grand Challenge issues in health, energy, water and sustainability
- continuing to grow our global efforts in process safety, including focus on undergraduate education worldwide
- making the value of AIChE membership even more apparent to current and prospective members, thus driving membership retention and growth
- maintaining momentum in enhancing diversity and inclusivity throughout our global profession
- growing current efforts to capture the energy, enthusiasm, and career diversity of our new college graduates as they become young professionals, making AIChE a welcoming home for all
- making AIChE the leading technology forum in exploring the opportunities and challenges presented by the current and future abundance of shale resources.

I welcome your comments and suggestions on these and other potential initiatives. Please feel free to contact me at markst@nd.edu or markst@che.utexas.edu.



2017 Air Quality Management Conference

Tuesday, October 17, 2017

Drury Lane Conference Center 100 Drury Lane, Oakbrook Terrace, Illinois 60181

The Air & Waste Management Association Lake Michigan States Section is pleased to once again offer the Midwest's most comprehensive annual program on air quality management issues. The LMSS's Air Quality Management conference has become a tradition in the region – bringing together environmental professionals from the industry, government, environmental services, legal and NGO communities to learn about the key current issues and most important developments in this rapidly-evolving field.

With the execution of numerous Executive Orders over the last six months, the Trump administration unquestionably has changed the face of air quality and climate change regulation in the United States. As a consequence, the relationship between federal and state environmental agencies is likely to change. Such sweeping change creates regulatory uncertainty, and companies must find ways of addressing that lack of certainty when running their businesses. In addition, third party citizen enforcement may increase to fill perceived enforcement gaps. In spite of this uncertainty, entities still must comply with existing regulations. Clearly, it is critical for all environmental professionals to stay abreast of these rapidly-occurring changes and understand how the changes can affect their organizations and/or their clients.

Please join us on Tuesday, October 17, 2017 at our Annual Air Quality Management Conference being held at the Drury Lane Conference Center in Oakbrook Terrace. Companies that supply products and services for environmental management will have exhibits on display at the conference. Sponsorship opportunities also are available. For information on exhibiting or sponsorship, please contact Robin Pelsis at (847) 202-0418 or robin.pelsis@lmawma.org.

Check out our website at: www.LMAWMA.org for updates to this conference

Upcoming AIChE Conferences, Meetings and Webinars

Chicago Local Meeting			
September 13, 2017	Schiller Park , IL		
October 12, 2017	Robert Reardon – PrimaTech / Texas State , Oak Brook, IL		
November 9, 2017	Jaehoon You—University of Texas, Arlington, Fermilab IL		
March 13-14, 2018	Midwest Regional Conference, IIT, Chicago		
AIChE Conferences			
October 27– 30, 2017	2017 Annual AIChE Student Conference		
October 29— November 3, 2017	2017 AIChE Annual Meeting, Minneapolis, MN		
April 22-26, 2018	2018 Spring Meeting & 14th Global Congress on Process Safety, Orlando FL		
April 22-26, 2018	8th World Congress on Particle Technology, Orlando FL		
October 28— November 2, 2018	2018 AIChE Annual Meeting, Pittsburg, PA		
March 31—April 4, 2019	2019 Spring Meeting & 15th Global Congress on Process Safety, New Orleans		
November 10-15, 2019	2019 AIChE Annual Meeting, Orlando, FL		

Officers and Contact Information			
Chair	Janet Werner		
Chair Elect	Mike Schultz		
Chair Programming	Beth Carter		
	Robert Tsai		
Secretary	Nick Guzman		
Treasurer	Joe Guido,		
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	Dennis O'Brien		
	Ellen Kloppenborg		
	Arwa Hasan		
House Committee	Asmara Soomro		
Newsletter Editors	Azita Ahmadzadeh azita.ad@gmail.com		
	Janet Werner Janet.werner8@gmail.com		

AICHE CHICAGO SECTION

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We are on the web www.aiche.org/Chicago

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? Becoming an officer in the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your local 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.

aichechicago@gmail.com

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

Submitting Articles to AIChE Columns

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AIChE Board of Directors. Chicago AIChE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

AICHE Publicity Committee	Academic (non-AICHE)		Company		Recruiters	
Fees	Per Month	Per Year	Per Month	Per Year	Per Month	Per Year
Advertisements (3X3)	100	450	150	675	N/A	N/A
Half-Page (~7"x 4.5")	280	1260	420	1890	N/A	N/A
Job Posting (Size?)	50	225	100	450	250	N/A
Special Sizing	Contact Publicity Committee aichechicago@gmail.com					

For the purchase of a year ad, customers have the option of changing ads/jobs month to month. Online payment can be done using http://www.cvent.com/d/9cq5pw/4W

