## **ASEE Chemical Engineering Division Newsletter**

Editors: Lorena Grundy, Tufts University and Monika Crowl, University of Connecticut

## A Message from the Chair-Elect:



Janie Brennan
Washington University
in St. Louis

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## Call for Community Announcements

Please send any announcements you'd like included in the monthly newsletter to <a href="mailto:ched.asee.newsletter@qmail.com">ched.asee.newsletter@qmail.com</a>.

Just before writing this, I put the finishing touches on my last quiz for the semester. I know I'm probably not the only one scurrying around frantically trying to wrap up the semester (and/or trying to get well deserved rest as the summer starts), so I will try to keep this short! Thanks for taking the time to read this newsletter and engage with our division. I am continually impressed by the dedication of our division members, and particularly our officers, to not only our community of chemical engineering educators, but to our students and the quality of the field. We in chemical engineering have a tight-knit group that sets a high bar for quality and consistency of teaching and learning, which makes us stand out amongst engineers.

To that end, I'm looking forward to the ASEE Conference in beautiful Portland, where we will be able to catch up with old friends, make new friends, celebrate achievements, and learn from others about how to be better at our craft. This year's theme is "The Future of Engineering Education", which invites us to imagine what the future can and should be. I know I am striving for a future that is more diverse, more inclusive, and more effective at training our students to be responsible, ethical, and of course competent at engineering. When I ponder what will get us to that future, I have every confidence that our community of educators is on the right track.

Hope to see you in Portland! Cheers, Janie Brennan Chair-Elect

## **ChED Elections: Summary of Candidates**

# Candidate for Division Chair-Elect

Winner will serve as chair of ChE Division for 2024 - 2025



**Taryn Bayles**University of Pittsburgh

# Candidate for Secretary/Treasurer

Winner will serve as Secretary/Treasurer of ChE Division for 2024 - 2025



Sarah Wilson University of Kentucky

### **Candidate for Director**

Winner will serve as an advisor to the executive board for a term of 2 years



**Betul Bilgin**University of Illinois Chicago

Vote here by Friday, May 17th!

## **ChED Elections: Candidate for Chair-Elect**

I would consider it an honor and privilege to serve as the Chair-Elect for the Chemical Engineering Division of ASEE. I became a member of ASEE in 2002 when I had the opportunity to attend the Chemical Engineering Summer School in Boulder, CO. I thoroughly enjoyed this experience as I learned innovative ways to teach traditional classes and was inspired by sharing ideas with so many colleagues across the country. Since then, I have been actively involved with ASEE, and specifically have served our division as Director 2009-2011, Program Chair 2019-2020, and have had the privilege to provide workshops at the 2007, 2012, 2017 and 2022 Chemical Engineering Summer Schools. In addition, I was on the organizing team for the ASEE North Central Conference in 2022. And for me, being part of the 2022 Chemical Engineering Summer School Organizing (specifically the Finance subcommittee), has been my most gratifying service role for our community. All of my experiences at Summer School have been inspiring - from meeting new colleagues from across the world and learning from experts in our field. It is at Summer School and ASEE meetings where I have made friendships which have spanned my academic career.



Taryn Bayles
University of Pittsburgh

I am currently a Teaching Track Professor of Chemical Engineering and serve as the Undergraduate Program Director in the Chemical & Petroleum Engineering Department at the University of Pittsburgh. Prior to my position at Pitt, I spent 17 years at the at the University of Maryland Baltimore County (UMBC), where I started as a Visiting Lecturer and became a Professor of the Practice. At Pitt, I primarily teach courses in Material & Energy Balances, Thermodynamics, Separations and Capstone Design... but I have taught everything in between (except Kinetics). In all of my courses, I strive to incorporate my industrial experience by bringing practical examples and interactive learning to help students understand fundamental engineering principles and I include hands-on engineering design projects which emphasizes teamwork and communication skills. My research focuses on Engineering Education and Outreach. The goal of this research is to increase awareness and interest in pursuing engineering as a career, as well as to understand what factors help students be successful once they have chosen engineering as a major. For the last twenty-five years I have developed engineering curriculum for K12 classes and led extensive outreach programs impacting over 15,000 students and have provided over 165 professional development workshops for K-12 teachers and their students.

In recent surveys of Chemical Engineering faculty, we have seen substantial growth in the numbers of our colleagues who are pursuing research in Engineering Education, the Scholarship of Teaching & Learning, and who have chosen to pursue Teaching Focused academic positions in Chemical Engineering. If elected, it will be my goal to involve and expand our membership to identify how our division can meet the needs of our expanding community in terms of programing and engagement. Together, I hope that we can continue to make CHED a welcoming and inspiring community where we all can grow and learn with one another. I would be honored to draw on my experiences and my commitment to engineering education to be considered to serve in the Chair-Election position in the Chemical Engineering Division.

Thank you for your consideration.

# ChED Elections: Candidate for Secretary/Treasurer

First, I would like to thank you for identifying me as a candidate for Secretary for the Chemical Engineering Division of ASEE. I have been exposed to excellence in chemical engineering education since the beginning of my undergraduate career at Rowan University. My experience at Rowan helped to shape my career goals to become both an educator and a mentor for undergraduate chemical engineering students. In 2015, I began my career as a teaching faculty member in chemical engineering at the University of Kentucky (UK). As I worked closely with students, I recognized the challenges they faced in their engineering education, sparking my interest in educational research aimed at improving the student experience. This motivation was further reinforced when I encountered students dealing with mental health challenges, highlighting the need for enhanced support systems. In 2020, I received an NSF Research Initiation in Engineering Formation (RIEF) grant to study mental health-related help-seeking beliefs in undergraduate engineering students. This funding helped to solidify my transition from a teaching track faculty member to a tenure track assistant professor with research in engineering education in 2021.



Sarah Wilson University of Kentucky

While I am passionate about fundamental research on engineering student mental health, I am most excited about the translation of my research into practice. To support this, I have co-authored two articles in Chemical Engineering Education focused on helping engineering faculty support students who are struggling with mental health. My work has contributed to the development of a faculty mental health training (in collaboration with Karin Jensen from the University of Michigan) that has been delivered over seven times both nationally and internationally, including at Chemical Engineering Summer School in 2021. Further, I have held two workshops with undergraduate students on the importance of prioritizing mental health as an engineering student (both presented at the American Institute of Chemical Engineering Conference). I have also co-led a community of practice for engineering faculty focused on mental health. Through monthly meetings over the past two years, we have consistently had 15-30 people in attendance each month. This has helped to engage the engineering community in shared knowledge generation related to supporting engineering student mental health. These efforts not only highlight my desire to disseminate knowledge but also to drive change around the culture of mental health in engineering.

My experiences with ASEE through National Conferences and the ChE Summer School have helped to shape me as an educator and a researcher. In addition to contributing my research, I have quickly learned that the chemical engineering education community is filled with passionate and supportive educators who strive to continuously improve their ability to train young engineers. To facilitate the success of this community, I have previously served as Director and I am currently Programming Chair both in the Chemical Engineering Division of ASEE. I recognize the value of these experiences for my own professional development, as well as the development of our community and community members. Therefore, to further my personal growth and contribute to the growth of this community, I aim to increase my involvement in the leadership of ASEE as Secretary for the Chemical Engineering Division.

Thank you for your consideration.

## **ChED Elections: Candidate for Director**

With a profound sense of purpose and dedication, I am requesting your consideration for the Director position of the Chemical Engineering Division (CHED) within ASEE. My academic and professional journey, beginning with my PhD graduation in 2013 and subsequent appointment at the University of Illinois Chicago (UIC), has been both challenging and enriching. Initially, the transition into teaching was daunting due to a lack of formal training. This challenge, however, propelled me towards discovering invaluable resources like the National Effective Teaching Institute (NETI) and ChemE Summer School, which significantly enhanced my pedagogical skills and classroom confidence.

My career took a pivotal turn three years later when I delved into engineering education research, driven by a newfound passion and curiosity. My engagement in this field has been transformative, leading to successful University of Illinois Chicago proposals and the funding of an NSF RIEF project. This endeavor not only



**Betul Bilgin** 

expanded my research portfolio but also provided me with a mentor in social science, deepening my understanding of education research. My research interests have since evolved to focus on developing engineering identity, boosting student motivation, bridging the academic-industry gap, and advancing Diversity, Equity, and Inclusion (DEI) efforts.

The backbone of my journey has undoubtedly been the support and inspiration I received from the ASEE CHED community. From my first encounter with the conferences to the continuous exchange of knowledge and experiences with colleagues, CHED has played a pivotal role in my professional development. This community has not only provided me with a platform for growth but has also enriched my academic and research endeavors, highlighting the power of collective effort and shared wisdom.

As a candidate for the Director position, my vision is rooted in giving back to the community that has greatly influenced my path. I aim to foster a culture of openness, collaboration, and mutual support, drawing from my own experiences to guide and inspire others. My commitment is to ensure that CHED remains a beacon for those navigating the complexities of chemical engineering education, research, and professional development. By sharing my journey, listening to the stories of others, and facilitating connections within our community. I hope to contribute to the continued growth and success of CHED.

I am deeply grateful for your consideration and look forward to the opportunity to serve as your next CHED Director, striving together towards a future where our collective efforts shape the next generation of chemical engineering educators and researchers.

Thank you for considering my candidacy.

### Vote here by Friday, May 17<sup>th</sup>!

## **Annual Conference: Highlights & Reminders**

Don't forget to <u>register</u> for the conference! It's June 23-26 in Portland. The program will be finalized very soon, but here are some highlights (times all in local Portland time – Pacific time zone):

### **Sunday:**

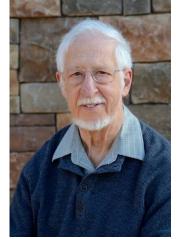
**Game Night!** Come hang out with your favorite ChemEs from 7-9 PM.

### Monday:

Poster Session from 9:15-10:45 AM Technical Sessions at 11:00 AM and 1:30 PM **Business Meeting** from 3:15-4:45 PM

### **Tuesday:**

Donald R. Woods Award Lecture at 9:15 AM
Distinguished Lecture: Richard Felder at 11:00 AM
Technical Sessions at 1:30 and 3:15 PM
Banquet at 6:00 PM (Location and tickets
to be announced soon)



Distinguished Lecture by Richard Felder

### Wednesday:

**Lightning Roundtable** at 11:30 AM (there's still time to submit an abstract <a href="here">here</a>! No paper required)
Open Mic at 2:00 PM

Technical Sessions at 8:00 AM, 11:30 AM and 3:45 PM

This year, we have 10 technical sessions and close to 60 papers total! Thanks so much to all of you for your contributions to this conference.

Looking forward to seeing everyone soon!

Sarah Wilson

2024 Chemical Engineering Division Program Chair



### LIGHTNING ROUND TABLE

### Present at ASEE without submission of a full paper!

The ASEE ChemE division will be hosting a lightning round table session for those wanting to share a teaching strategy, a technology tool they are using in the classroom, or short research finding. Those interested in presenting should submit a short (150 word max) abstract outlining their contribution. The deadline for submission is Friday, May 3rd at 5 PM ET:

https://forms.gle/AT4fA8BWUURcnDrZ8

ASEE Members, be sure to check your division memberships when you renew. You can see what divisions you are a member of by viewing your profile page (see the image below). If you would like to add or remove division memberships you need to email membership@asee.org.

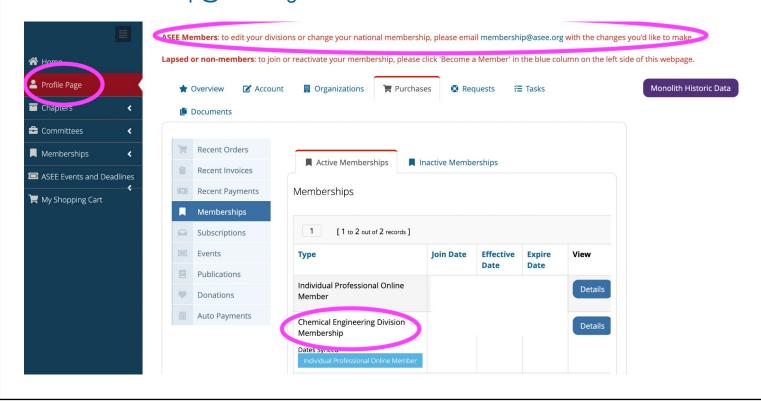


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School Photo: Lisa Bullard