



*virtu*AIChE®

This month's meeting:

*Primary (with live discussion/live chat) Wednesday, Nov 17 at 9 pm ET (US) / 1 am GMT
Alternate 1 (with live discussion/live chat) Thursday, Nov 18 at 7 am ET (US) / 11 am GMT
Alternate 2 (with live discussion/live chat) Thursday, Nov 18 at 1 pm ET (US) / 5 pm GMT*

Reimagining energy and the case for greening companies

Presented by Thomas Bond,
bp

Energy markets are fundamentally changing and shifting towards low carbon – driven by societal expectations, technology, and changes in consumer preferences. bp has been an international oil company for over a century but is now pivoting to become an integrated energy company – from IOC to IEC, from a company driven by the production of resources to one that's focused on delivering energy solutions for customers. This presentation will share how bp plans to achieve this transition, and why the world needs companies like bp – companies that are not low carbon today but are serious about becoming low carbon – to accelerate progress toward net zero.



Thomas Bond is business advisor in the chief executive's office at bp. He is an engineering graduate and has worked for bp since leaving university in 2011. He has spent his career in drilling engineering roles across bp's Exploration and Production portfolio, in Norway, Angola, Egypt, and the UK. Prior to his current role he was the Senior Drilling Engineer for bp's Mauritania and Senegal business, which included responsibility for establishing bp operations in a new region and delivery of the first bp wells in the basin. In his current role, Thomas provides trusted advice and support to the Chief Executive Officer, his chief of staff, and the executive leadership team of bp. He holds and manages key external relationships on behalf of bp, including leading the partnership with the World Economic Forum (WEF) and Sustainable Markets Initiative (SMI).

***Note that registration for VLS meetings is required.
Our meetings are still free to attend and open to all.***

November Meeting Registration Information

Primary	Alternate 1	Alternate 2
(Live Presentation/Live Chat)	(Recorded Presentation/Live Chat)	(Recorded Presentation/Live Chat)
Nov 17 at 9 PM EST / 1 AM GMT	Nov 18 at 7 AM EST / 10 AM GMT	Nov 18 at 1 PM EST / 5 PM GMT
Register in advance for the Primary Meeting	Register in advance for the Alternate 1 Meeting	Register in advance for the Alternate 2 Meeting

After registering, you will receive a confirmation email containing instructions for joining the meeting, along with add-to-calendar links.

Introducing Our September Meeting Raffle Winner!

Every month, a dues-paying member who signed in for the duration of the monthly webinar is selected at random to win a free year of VLS membership (Executive Committee members and previous winners during the current year are ineligible). We are pleased to introduce our September winner – Howard Altmann.



Q: What made you want to be a chemical engineer

A: During my latter days in high school, I had a liking for the physical sciences and mathematics but had an inkling that I would like using the principles to apply to solve real problems. It was only during my freshman year that I realized that I had an attraction to chemistry and its applications and committed to the chemical engineering tract. Later, I realized and appreciated that chemical engineering allowed me the opportunity to draw in other engineering and scientific skills.

Q: What kind of jobs have you held?

A: My first position was as a Process Research and Development Engineer with Union Carbide Corporation at its Bound Brook, NJ R&D Center. The work involved developing processes for new chemical products invented by excellent applications chemists and improvement of existing processes for other chemical products. Along the way, I sharpened my skills in the process area and in the related areas of safety and quality – areas that I am sure all of you have been involved to some extent over the years. I transferred to the Linde Division of Union Carbide which became Praxair shortly after I joined. There, I worked in Applications Development of chemical and physical processes particularly using Praxair's novel gas-liquid mixing technologies including, but not limited to the LOR® and the AGR®. I worked in Tarrytown, NY. Praxair merged with Linde a few years ago.

As part of my work for both companies, I was given the opportunity to work alongside operations professionals and business and marketing professionals.

Since then, I have worked for companies involved with validation and verification and with engineering support to insurance companies following significant disasters. I have also taught high school chemistry.

Q: Why did you join the Virtual Local Section?

A: I joined the Virtual Local Section because it is convenient to learn in the late evening when I have a break from my work, family and volunteer responsibilities. VLS is also a great benefit to me as there is currently no close local chapter

Q: Any hobbies that are connected to chemical engineering

A: I have a commitment to lifelong learning. Consequently, I make myself as active as I can in several professional organizations with varying connections to the chemical industry. I also run a Connecticut-based networking group called Mondays at Seven whose aim is to help people in transition develop the job search skills that they need in order to effectively conduct job searches.

VLS Presents 7th Annual “Student Co-op and Internship Presentation Competition”

VLS will host the 7th Annual Student Co-op and Internship Presentation Competition for recent Co-op and Internship students. This annual competition consistently gives students who do industrial co-op and internships an opportunity to showcase their work and improve their presentation skills. It also gives VLS members an opportunity to recognize exceptional work done by these students. All students* are invited to submit an abstract by 1/3/2022; based on abstracts the top four will be invited to present at the February 23rd 2022 VLS meeting. Prizes ranging from \$150 to \$500 will be awarded to these four presenters.

VLS and AICHE members whose companies have co-op/intern employees are especially encourage your co-op/intern to submit an abstract. Presentations should be less than 10 minutes and will be judged by practicing chemical engineers and AICHE VLS members, based on:

- Application/demonstration of chemical engineering principles to students’ work
- Understanding of process and/or chemistry
- Clarity/appearance of slides and presentation
- Understanding how student’s work is used/applied/extended into other applications/industries
- Ability to answer questions

*Participants must meet the following qualifications:

- Undergraduate ChemE students (graduating Dec 2021 or later)
- Spring/Summer/Fall 2021 Co-op or Intern students
- Teams of 2 students are permitted if both meet qualifications

The submission form is available online at Co-op and intern contest. Submit questions to Noah Meeks, Past Chair, at NoahChemE@icloud.com

U. S. National Engineers Week – February 20-26, 2022

Each year more than 70 United States engineering, education, and cultural societies, and more than 50 corporations and government agencies celebrate being an engineer during week of George Washington's birthday. In 2020, the week of February 20 – 26 had been declared "National Engineers Week" (Eweek) in the United States. Ireland (<http://www.engineersweek.ie/>) will celebrate Eweek the week of March 5 – March 11, 2022. Canada will honor engineers and engineering during the entire month of March (<https://nem-mng.ca/>). The website, <http://www.wfeo.org/engineersdays/>, tracks Eweek celebrations around world.

The goal of National Engineers Week (Eweek) is to promote engineering and the positive contributions engineers make to our lives especially at local schools and to the public. Depending on your location, events range from hosting competitions such Mathcounts, Future City, Robotics, Odyssey of the Mid, and Science and Engineering Fairs to honoring the top engineers, agencies and employers at banquets and dinners.

During my 40 plus years in the engineering field, I have judged science fair projects, introduced elementary, junior high and high schools students to environmental and chemical engineering, and organized award banquets to honor outstanding engineers and engineering projects.

My favorite event has been the "Introduce a Girl to Engineering" day. Using the process of baking cookies, I explain how engineers create the process, equipment and instructions to make millions of cookies each year. Even the safety department joins in by conducting a safety briefing on how to prevent burns, spills and fires when baking cookies at home. At the end of the day, most of the attendees including the chaperones and teachers understand engineering is more than building roads or power plants.

Another program that fits with being a virtual section is the Future City Completion. Even though I live about 250 miles (400 kilometers) from the nearest competition site, I can be a remote judge of the written presentations. For the 2021 Future City Competition, I reviewed 10 entries from the 6th -8th Grade level online using the guidance documents and scoring rubrics to record my scores. Some of the entries showed a true appreciation of the technical challenges to solving the problems a future city would face. Visit <http://discovere.org/our-programs/future-city> for more information on how to become a judge for the Future City Competition.

For information on the events in your location, check some of the websites listed below or contact your local engineering societies, school districts and private schools and governmental agencies for more information.

www.aiche-metrony.org/Engineers/Week.html

www.facebook.com/EngineersWeek

www.futurecity.org

www.discovere.org/ur-programs/girl-day

<https://msachieves.mdek12.org/2020-national-engineers-week-nasa>

www.carnegiesciencecenter.org/calendar/event-details/?eventID=2187

<https://www.ashrae.org/government-affairs/grassroots-advocacy/national-engineers-week-eweek>
www.engineeringfamilyday.org
www.dvewc.org/about
www.new-sandiego.org/awards/outstandingengineer.html
<https://www.army.mil/article/120306>

www.wfeo.org/engineersdays (International Dates and host organizations)

Australia: <https://www.facebook.com/EngineersAustralia>

Canada: <http://www.nem-mng.ca/>

India: <https://www.ieindia.org/en>

Ireland: www.engineersweek.ie

AIChE News

The AIChE hosts technical conferences around the world. Check www.iche.org/conferences for registration and presentation information for this year's events.

Dates	Event
Nov 2 – 4	3 rd Global Symposium on Waste Plastic
Nov 3 – 5	4 th International Conference on Microbiome Engineering(ICME)
Nov 3 – 5	2 nd Latin American Virtual Conference on Process Safety
Nov 3	How Grab Sampling can Help Improve your Plant's Safety
Nov 4	Optimizing Non-linear Chemical Engineering Applications
Nov 4 – 6	5 th International Conference on Epigenetics and Bioengineering(EpiBio)
Nov 5 – 14	2021 AICHE Annual Student Conference
Nov 6	Pandemic Advance Capabilities & Engineering (PACE): COVID Tracking, Transmission, Detection, Modeling
Nov 7 – 19	2021 AIChE Annual Meeting
Nov 8	Unconscious Bias Workshop
Nov 8 – 16	RAPID@2021 Annual
Nov 9 – 11	2021 Ammonia Energy Conference
Nov 10 – 11	November 2021 TSC Meeting
Nov 10	The Case for Consistency: MAWP vs Design Pressure
Nov 14	Chevron Sponsored Virtual CCPS Process Safety Faculty Workshop
Nov 14 – 15	2021 AIChE K-STEM Showcase
Nov 15 – 17	5 th International Conference on Plant Synthetic Biology, Bioengineering and Biotechnology
Nov 17	2021 CCPS Europe Regional Meeting
Nov 18	Support the Acceleration of Virtual Education for K-12
Nov 18	Pandemic Advance Capabilities & Engineering (PACE): Solutions in the aftermath of COVID
Nov 30	Center for Hydrogen Safety Asia – Pacific Conference
Dec 1	2021 AICHE Gala
Dec 1 – 3	4 th Water Conference
Dec 3	8 th International Conference on Stem Cell Engineering 2021

Dec 5 – 7	2 nd Optogenetic Technologies and Applications Conference
Dec 6 – 7	4 th Food Innovation and Engineering (FOODIE) Conference
Dec 7	Ventilation Considerations for Hydrogen Safety
Dec 9 – 10	Global Polymers and Textiles Conference
Dec 9	Digital Innovation for Improving Safety in Chemical Plants
Dec 9 – 10	3 rd Bioenergy Sustainability Conference
Dec 13 – 14	3 rd Renewable Natural Gas Summit
Dec 14 – 16	6 th Global Summit on Process Safety
Dec 15 – 17	3 rd Engineering Sustainable Development Conference

Upcoming VLS Meetings

The VLS has monthly meetings. The following meetings have firm dates and speakers.

Dates	Topic
Nov 2021	bp's Decarbonization Plan
Dec 2021	Holiday Social, headlining Don McMillan, who's Technically Funny
Jan 2022	Biomimicry: Green Chemistry Innovations Inspired by Nature
Feb 2022	Student Intern Competition

Past VLS Meetings

The VLS records its monthly meetings and archives them on the AIChE Academy website in case you missed a meeting or are looking for a particular topic. See below for current recordings.

Date	Event
Jun 2021	Chemical Fuels in Carbon Neutral Energy system
Apr 2021	Impactful Online Meetings
Feb 2021	Overcoming the Challenge of Applying Chemical Engineering Principles to the Art of Winemaking
Jan 2021	DIERS Technology Fundamentals II: VLS January 2021 Webinar
Nov 2020	Protecting Lives and Livelihood: Hazardous Materials Classification and its Impact to the Supply Chain
Oct 2020	Chemical Safety Board (CSB) Accidental Release Reporting Rule
Sep 2020	Internships and Undergraduate Education
Aug 2020	Physical Property Models to Design Better Chemical Products
Jul 2020	Julia - A Fresh Approach to Technical Computing
Jun 2020	The Next Digital Leap to AI (An Interactive Webinar)
May 2020	Challenges and Benefits of Remote Operator Training using Cloud-Deployed High-Fidelity, First-Principles Based Standard Operator Training Simulators (SOTS)
Apr 2020	NASEM Chemical Engineering in the 21st Century Study: Give your input!
Mar 2020	Is Your Focus Your Magic!
Feb 2020	DIERS data/standards in HAZOPS of two phase flow
Jan 2020	A Brief History of Measurement
Nov 2019	Using Thermal Imaging to Guard Industrial Facilities
Oct 2019	Python for chemical engineers: Getting started
Aug 2019	Reactive Chemical Hazards
Jul 2019	Should I Py or Should I Fortran?

Jun 2019	<u>Design Considerations for Organic Electronic Materials and Devices</u>
May 2019	<u>Why Can't You Compete Without Virtual/Augmented Reality in Your Plant</u>
Apr 2019	<u>The Chemistry of Bourbon: The "spirit" of molecules</u>
Mar 2019	<u>Demystifying Professional Engineering Licensure and How to Put it to Work for you</u>
Feb 2019	<u>Municipal Wastewater and Sludge Are a Resource, Not a Waste: Coping with Tightening Water Supplies and Limited Landfill Availability</u>

We're in this Together

The ongoing COVID-19 situation has provided us with a reminder that even in uncertain times, AIChE is a diverse community of people who lead, create, inspire and learn—together. AIChE is here to help. Knowing that many of our members are working virtually, AIChE has created this page to act as a hub for online content, access to communities, and communication updates. [Learn more.](#)

The Virtual Local Section's Executive Committee

Officers

Chair:	Paul Adamson
Senior Vice Chair:	Steve Treese
Vice Chair:	Vacant
Immediate Past Chair:	Dan Lambert
Secretary:	Laura Gimpelson
Treasurer:	Jennifer Brand

Directors

Member Care	Fred Fischl
Publicity	Paul Wissmann
Newsletter	Mario Arredondo
Programming	Scott Clarke
	Kirsten Rosselot
Member Feedback	Richard Evans

Did You Know?

You can visit [the VLS website](#) for more information on the Virtual Local Section's mission, activities, and membership. Also at this website, AIChE student members and VLS members can watch previous webinars for free.

Subscription Information

Current fully paid members of the Virtual Local Section receive this newsletter. If you wish to update your email address, contact the AIChE's New York Office for Permanent Address Corrections at xpress@aiiche.org or 1-800-242-4363.

Continuing Education Credits

Members of AIChE can receive 1 hour of continuing education/professional development credit for attending Virtual Local Section webinars. Send your name, the certificate number on your professional engineer's license, and the licensing entity (state or country) in which you are licensed to our Secretary, [Laura Gimpelson](#), to receive one hour of continuing education credit for attending this meeting.