



*virtu*AIChE®

This month's meeting:

*Primary (with live discussion/live chat) Wednesday, Mar 24 at 9 pm ET (US) / 1 am GMT
Alternate 1 (with live discussion/live chat) Thursday, Mar 25 at 7 am ET (US) / 11 am GMT
Alternate 2 (with live discussion/live chat) Thursday, Mar 25 at 1 pm ET (US) / 5 pm GMT*

Application of AI in Chemical Processing

Presented by Martin R. Gonzalez,
Connected Worker Principle, bp's Intelligent Operations team

The process industries have begun to realize value from data analytics and machine learning, following on the success experienced in other manufacturing fields. Now the challenge has shifted to artificial intelligence, with refineries included in the race to understand how to turn cognitive digital science into real dollars. We will explore bp's experience in AI deployment to support refinery operations, including learnings about the tactical and strategic fit within existing work processes. We will also discuss the future of reasoning and automated learning to support manufacturing and fuels production. What can science achieve and how far should we take it?



As Connected Worker Principle within BP's Intelligent Operations team, Marty Gonzalez leads Digital Twin strategic solution development in support of bp's Production and Operations organization. In his 25-year career with Amoco and bp, Marty has held positions in R&D, refinery operations, process design, capital projects, and refinery commercial optimization. He has been developing data analytics, machine learning, and AI-based applications for bp's downstream operations since 2016. Marty holds a Bachelor of Science degree in Chemical Engineering from the University of Illinois, and a PhD from the University of

Wisconsin, where he performed experimental research in heterogeneous catalysis.



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

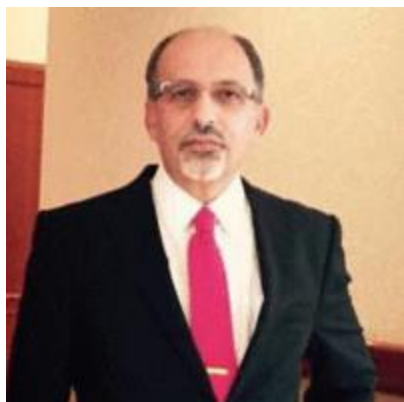
March Meeting Registration Information

Primary	Alternate 1	Alternate 2
(Live Presentation/Live Chat)	(Recorded Presentation/Live Chat)	(Recorded Presentation/Live Chat)
Mar 24 at 9 PM EST / 1 AM GMT	Mar 25 at 6 AM EST / 10 AM GMT	Mar 25 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 January 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 January winner – Shanker Pershad.



Q: What made you want to be a chemical engineer

A: Soon after completing my advanced degree in Organic Chemistry I quickly realized that there was a huge void in my professional approach that was longing to be filled - and that was satisfied when I decided to become part of the beautiful symphonic orchestra where the confluence of other wonderful instruments (chemistry, nano material science, hydraulics, fluid flow, mass transfer, heat transfer, kinetics, process safety, biochemical, and others) found their true expression. Hence I started at the bottom and worked my way up to be a 2nd violinist. Have never regretted that decision since.

Q: What school did you go to?

- A:
1. University of Houston - MSChE - "Go Cougars"
 2. The University of Texas-Austin - BSChE - "Hook 'em Horns" - I bleed orange.

Q: What kind of jobs have you held?

A: Primarily as a process engineer in:

- Diverse chemical operations ranging from specialty/fine/custom, and bulk commodity (petrochemical complex)
- Design (EPC) firms

Primarily as a Process Safety SME in:

- US DOE Mixed Oxide Fuel Fabrication Facility (MOX/MFF) process for purifying and degrading weapons-grade fuel assemblies
- Specialty Materials

Q: Where do you live?

A: Currently residing in the metro area adjoining the city of Richmond, VA (aka RVA, and also City on the River James).

Q: Why did you join the Virtual Local Section?

A: Primarily to engage/network with chemical engineering professionals from across the globe.

Q: Any hobbies that are connected to chemical engineering

A: I have several "hobbies" but the ones I truly cherish are to be a wannabe wine-maker, and a micro-brewer.

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

Do You Have This In-Demand Soft Skill Employers Look For?

by Dr. Lucia Feng, President & CEO
OnCareerSuccess Inc.

We hope you and your loved ones are staying safe and healthy as the COVID-19 pandemic, starting in mid-March of 2020, sent you and millions of workers navigate down an uncharted path that upended work, school and life for all.

On the heels of businesses being forced to close their offices, office workers pivoted and adapted to remotely work from home (WFH). Managers adapted their management style for team members working remotely. For the parents among us working remotely, you juggled -- in between doing work and attending meetings -- to adapt to caring as well as "home schooling" children collaboratively and creatively using the schools' online curricula.

For college students, closing of the colleges and universities means you adapted to learning from professors and lecturers by online lectures.

While becoming talking heads in a rectangular box on a computer screen for virtual meetings, you, your colleagues, school children, college and university students adapted to working online or learning remotely. Adaptability, in short, was essential to keeping businesses, schools, and our lives going forward when uncertainty, unpredictability, and unknowns dominate during the current COVID-19 pandemic.

Adaptability - A Key Soft Skill to Learn to Build and Grow Your Career

Dictionary.com defines adaptability as the ability to "adjust oneself readily to different conditions." It is a key soft skill to learn and to improve on because it is an in-demand skill employers are increasingly looking for according to surveys conducted by Indeed and LinkedIn. Candidates or employees who have this skill get hired at the highest rates per LinkedIn. Indeed, found in a survey of 1000 hiring managers that adaptability is listed as one of the top 5 attributes of top performers at their company.

Many believe the term "soft skill" is a misnomer. Some refer to soft skills as leadership skills. Representing one perspective, Indeed defines "soft skills are personal habits and traits that shape how you work, on your own and with others".

Why do you need adaptability and why do employers look for it?

As business conditions often change due to technical innovations, regulatory changes, market or economic drivers shifting, companies have to change swiftly to adjust to the new business demands or to macro-business conditions that could be out of their control. A good example is the COVID-19 pandemic causing a dramatic shift from working in a supervised office to a WFH system.

Employees who can flexibly change with and adapt to constant changes at work are valuable because they can help companies grow, maintain, or create markets. When things do not go as planned or the work environment is fast-paced, employees who have the adaptability soft skill can stay calm under pressure, try out new solutions to resolve unexpected problems, be unafraid to take on new or multiple tasks beyond one's regular responsibilities, accept customer's feedback as constructive input to improve their products or services, or accept new team members or new team leaders with different working styles or perspectives.

Employers also value employees with adaptability soft skill because the speed of change is accelerating, and they need employees who can embrace change, deal with unpredictability, and make the most out of the changes to make a company successful.

Adaptability is now one of the most in-demand soft skills employers are looking for in candidates to be hired since 2020, according to LinkedIn which made this determination after analyzing over 20 million job listings and using data in profile information of the more than 660 million professionals in its LinkedIn network platform.

While many of us go to school to learn "hard skills" for specific technical knowledge such as marketing, electrical engineering, software development, materials science, robotics, sports medicine or nursing, increasingly employers surveyed -- 57% of 2000 business leaders surveyed by LinkedIn in 2018 -- said "soft skills" are the most important skills because soft skills are transferable skills that enable you to do your job well regardless what that job or profession is or what career path you are on. In fact, soft

skills are attributed to making the difference between success and failure as an employee, as a team member, and as a leader.

The implications are clear: Soft skills are relevant. Soft skills can matter as much, if not more than, hard skills by hiring manager especially for more senior level positions. As business is about relationships and working with people, individuals who offer the right combinations of complementary hard skills and soft skills will be in demand and remain competitive in future job markets because they can empower their teams and contribute to growth for their companies with their positive flexible attitudes and human touch.

To be Continued...

Gone are the days when companies would send its employees to offsite professional development training courses that cost \$200-400 for one-day training. Yet, companies expect employees to have the skills they need. That is why OnCareerSuccess developed these professional development and career management courses, for individuals to affordably attend on-demand courses.

AICHe News

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

Dates	Event
Mar 8 – 10	7 th International Conference on Accelerating Biopharmaceutical Development (AccBio 2021)
Mar 10 – 12	2021 DIERS Spring Virtual Meeting
Mar 12	RAPID Tech Showcase Featuring Siemens' Digital Twin Use Case & Collaborating on Funding Opportunities
Mar 16	Acelerating Antibody Discovery with Cell Free Protein Synthesis and Automation
Mar 17 – 18	13 th AICHe Midwest Regional Conference
Mar 18	Improving Operations and Safety Advanced Analytics
Mar 24	AI For Chemical Engineers: Fast Track your Journey to Get Ahead
Mar 25	CCPS Latin America Regional TSC Meeting
Mar 26 – 27	2021 Southwest Student Regional Conference
Mar 26 – 28	2021 Southern Student Regional Conference
March 31	Unraveling the Mysteries of AN Detonations
April 2 – 3	2021 Rocky Mountain Student Regional Conference
April 5 – 6	RAPID Deploy Conference: Modular Technologies for Waste-to-X
April 9 – 11	2021 Mid-Atlantic Student Regional Conference
April 10 – 11	2021 Eckhardt Northeast Student Regional Conference
April 13 – 15	2 nd Competitive Energy Systems Symposium
April 13	CCPS South East Asia Regional Members Virtual Meeting
April 14	Overview Webinar for the CCPS Risk Analysis Screening Tool (RAST)
April 14	Smart Manufacturing for the Process Industries
April 16 – 17	2021 North Central Student Regional Conference
April 16 – 17	2021 Mid-America Student Regional Conference
April 18 – 23	2021 AICHe Virtual Spring Meeting and 17 th Global Congress on Process Safety
April 19 – 20	Rock Stars of Regenerative Engineering – Chicago
April 24 – 25	3 rd Natural Gas Utilization Workshop

Upcoming VLS Meetings

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

Dates	Topic
April 2021	Impactful Online Meetings
May 2021	Biomimicry

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:	Aaron Sarafinas
Vice Chair:	Steve Treese
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@aiche.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.