

The South Texan



Thursday, May 9, 2019

Monthly Meeting @ The Bougainvilleas Houston
([12126 Westheimer Rd, Houston, TX 77077](https://www.google.com/maps/place/12126+Westheimer+Rd,+Houston,+TX+77077))

5:30PM–6:30PM Workshops

6:00PM - 7:00PM Social/Networking Time

7:00PM - 8:00PM Dinner and STS Announcements

8:00PM - 9:00PM Dinner Presentation/Speaker

Check us out on [YouTube!](#)

Inside this issue:

Dinner Details	1-4
Letter from the Chair	5
Climate Solutions Committee	6
Sponsors	7
Advertisement	8
Opportunities	9
YP of the Month	10
Volunteer Outreach	11-12
Upcoming Events	13-16
Past Events	17
2019 Meeting Schedule	18
Season Pass	19-20
STS Corporate Liaison Program	21
Contact Information	22

[Subscribe/Unsubscribe](#)

May Dinner Meeting

Dinner Speaker: Dr. Gavin Dillingham



Title: *Learn How Combined Heat and Power Can Help Save You Money and Increase Your Energy Resiliency*

Abstract: Combined Heat and Power (Cogeneration) is a great opportunity to reduce energy costs, save money and improve the resilience of critical infrastructure. Join the Department of Energy's Southcentral CHP Technical Assistance Partnership, to learn more about opportunities and applications for CHP at critical infrastructure sites with an in-depth discussion on energy resilience planning. Please join us to learn about these CHP benefits, federally funded engineering services, case studies and opportunities for your critical infrastructure site.

LEARN FROM AN EXPERT

- o Learn about different CHP technologies
- o Learn about federally funded Technical Assistance
- o Free CHP screening of your facility
- o Free 3rd party reviews of vendor proposals
- o Hear case studies of operating CHP at critical infrastructure
- o Current and future rebates, incentives and tax advantages available for customers that install CHP

May Dinner Meeting

Speaker Bio: Dr. Gavin Dillingham is Program Director for Clean Energy Policy at HARC and Director of the US DOE’s Combined Heat and Power TAP. Dr. Dillingham joined HARC in 2012 where he leads research and program efforts focusing on policy and regulatory efforts to improve the climate resilience of the electric power infrastructure and built environment.

He has worked climate related matters for the last twenty years in both the private and public sector. Much of this work focused on working with city’s and states to identify, develop and implement appropriate policies and programs to support climate action planning and greenhouse gas mitigation efforts.

Research Area: His current work at HARC includes studying and developing climate risk mitigation strategies for the public and private sector, climate action decision making and planning, and clean energy finance.

Education and Certification: Dr. Dillingham received his PhD in Political Science from Rice University in 2008. His recent accomplishments include being part of the first round of the Association of Climate Change Officers (ACCO) receiving the certification of Climate Change Professional (CCP). He is an active member in the American Society of Adaptation Professionals (ASAP) mentorship program and holds an additional certification with the Institute for Sustainable Professionals (ISSP) – ISSP Sustainability Associate.

Meeting Registration Information

Membership in STS-AIChE is a bargain at \$20/year. If you wish to become a member, you may join at the registration desk at the meeting.

Pre-registration for the main meeting is now open through our [website](#).

	Pre-Registration	Pre-Registration	At the door	At the door
	Members	Non-Members	Members	Non-Members
Regular/Retired	\$25	\$35	\$35	\$45
Student / Unemployed	\$15	\$25	\$25	\$35

Meeting Location– The Bougainvilleas Houston



This month’s meeting will be held at The Bougainvilleas Houston ([12126 Westheimer Rd, Houston, TX 77077](https://www.bougainvilleas.com/12126-Westheimer-Rd-Houston-TX-77077))

Double-click on the image to the left for directions from your location. For more details and information, please check our [website](#).

May Meeting Dinner Menu

Celebrate 5 de Mayo with STS AIChE!

Dinner Buffet:

Mexican Salad with Lime Dressing

Beef and Chicken Fajitas

Cilantro Rice

Charro beans

Flour Tortillas

Fixings: Pico De Gallo, Sheered Cheddar Cheese, Sour Cream, and Guacamole

Vegetarian Dinner Option:

Vegetable Stuffed Portobello Mushroom with a balsamic glaze*

** This dish is by request only and requires an online registration – reservations are due two (2) days before the event*

Request vegetarian meal option by May 7, 2019 5:00 pm.

Desserts:

Tres Leches Cake

Seasonal fruit trays

Coffee Station:

Regular and Decaffeinated Coffee

Non-Alcoholic Beverages:

Iced Tea with Lemon Wedges

Water

Alcoholic Beverage:

Cash Bar**

*** Cash only – no electronic payment option*

Online Registration closes at 4PM the day prior to the event (Wednesday May 8th). After this time, you may register at the door.

May Meeting Workshop I

Workshop starts at 5:30pm

Title: Innovation Tools

Abstract:

In today's global and fast-paced environment, the only way companies survive is to innovate. New products and services are required to keep pace with competitors, yet many executives feel that the ideas from within their organizations are stale and incremental. In many cases, products are launched with much fanfare and celebration of new technologies but fail to deliver profit when the market lacks enthusiasm.

Design thinking is a model for innovation that focuses on the market first. When product and process development teams empathize with the customer, the resultant products deliver higher profits and greater customer satisfaction. While the design thinking model is simple, it introduces new tools to build empathy with end-users, enhance team collaboration, and increase creativity in problem-solving.

In this presentation, we will discuss and practice some key tools for innovation based on design thinking. You will learn how to involve a customer in your product design without off-putting jargon or industry buzzwords. Workshop participants will gain hands-on practice with several design thinking tools, including noun/verb matching, affinity diagrams, and a customer empathy map.

Don't get left behind in a tidal wave of disruptive innovation. Learn how to apply design thinking tools to accelerate your success today.



Bio: Teresa Jurgens-Kowal, PhD, CPDM, PMP, NPDP

Teresa Jurgens-Kowal is a passionate writer, mentor, coach, and president of Global NP Solutions. She enjoys helping companies reach their highest levels of success with innovation. Teresa's clients include a full spectrum of large industry corporations to entrepreneurs seeking to launch new products. She frequently presents on her favorite topics of ideation, design thinking, and product development.

As a Registered Education Provider (REP) with the Product Development and Management Association (PDMA), Teresa has written the #1 best-selling book for New Product Development Professional (NPDP) certification. She is the editor for the PDMA Body of Knowledge (November 2019) and has recently published a chapter on leading virtual teams for innovation projects (October 2018, Leveraging Constraints for Innovation).

Prior to founding Global NP Solutions, Teresa worked in process technology development and as an internal innovation system consultant at ExxonMobil Chemical Company. She has degrees from the

May 2019 STS-AIChE Chair's Letter – Tom Rehm

Hello South Texas Section,

Professor Pavel Tsvetkov, Texas A&M Nuclear Engineering Department, made the long trek to the east side of Houston on April 11 to deliver the presentation “Generation IV Nuclear Power: Energy Approach in the 21st Century to Global Warming Challenge.” Although many have an aversion for nuclear power, I and my colleagues in the Future of Energy Initiative (mostly EE's), and many others including environmentalists, understand the potential and paramount importance of nuclear energy in the climate solutions mix. Professor Tsvetkov covered a lot of material in his presentation, too much perhaps, but I think that his fundamental theme was well received.

Our May 9 dinner speaker was scheduled to be Dr. Fanxu Meng. Unfortunately I learned on April 19 that he is unable to attend. No problem. Dr. Gavin Dillingham of the Houston Advanced Research Center (HARC) is stepping in. As of this writing, I'm not certain of his topic but HARC is involved in resiliency from severe weather events (Dr. Meng's scheduled topic) so keep your fingers crossed.

We continue to have great volunteer support from our section membership. Over the past month we supported the March 23 HISD When I Grow Up Career Expo, the March 30 Terry Hershey Park Trash Bash, and the April 6 Houston Scout Fair. Our volunteers at these events were Andreas Matzakos, Connor Schonert, Yurika Diaz Bialowas, and Matt Kolodney on March 23; Yurika Diaz Bialowas, Adam Bialowas, and John Middleton on March 30; and Yurika Diaz Bialowas, Adam Bialowas, Paul Waits, and Matt Kolodney on April 6. I would be amiss if I didn't acknowledge Yurika Diaz Bialowas' contribution to our section. She always seems to be there for our section.

Upcoming events that can use your time and positive energy are the Offshore Technology Conference May 6-9 at NRG Park (contact Tom Menn; ThomasMenn@sbcglobal.net) and the Sally Ride Day May 26 (contact Matt Kolodney mKolodney1@comcast.net or Connor Schonert connorschonert@yahoo.com). I'd like to thank the YP's for playing an important volunteer role in supporting the Offshore Technology Conference. Emily Jackson, YP Chair, is leading the YP's in preparing Goodie Bags for our volunteers.

In the afternoon of our April 11th dinner meeting, the South Texas Section partnered with Texas Industries of the Future to host the 2019 Texas Industrial Energy Management Forum at the Shaffai Hall & Garden on the east side. The Forum was well received, with 69 registered attendees and five exhibitors. Panel presenters were Ashutosh Garg, Vice President, Furnace Improvements Services; Thomas Theising, President, Sustainable Energy Systems; and Brad Vickers, Director of Engineering, International Cooling Tower.

Summer is almost upon us. We will have our summer break from section dinner meetings but will not go completely 'silent' as we have three activities planned. On June 1 we will cruise the Ship Channel; on July 19, we will fill seats at MinuteMaid Park when the Astros play the Texas Rangers; and in August, I will host a Scotch Doubles Pool Tournament in August at Bogies Billiards in the 'far' north (FM 1960 and Aldine Westfield). I misspent a significant chunk of my youth in pool halls and am now misspending a significant chunk of my 'mature years' in pool halls, my primary haunt being Bogies Billiards. Scotch Doubles is an alternate shot format. You take one shot, if you sink your shot, your partner takes a shot, and so on. Don't be concerned if your skills at running a table are a little weak. We will pair up better players with weaker players to have fun, competitive play.

I hope to see everyone at our May 9 section dinner at the Bougainvilleas!



The Climate Solutions Community

Interdisciplinary group seeks technically feasible and economically viable ways to mitigate, adapt and become resilient to climate change



The American Institute of Chemical Engineers (AIChE), through its technical subsidiary the Institute for Sustainability (IfS) and in cooperation with other AIChE technical and leadership entities, has established a new community – The Climate Solutions Community (TCSC) – a global collaboration that will bring together the expertise of a diversity of engineering and scientific disciplines to help industry and society to confront and manage the effects of climate change.

The AIChE Board of Directors approved the formation of The Climate Solutions Community in October 2018. Tom Rehm, a process safety specialist and Chair of AIChE's South Texas (Houston) Local Section, will lead the community in its formative stages.

In discussing the new community, Rehm noted that chemical engineers' versatility and formidable problem solving skills make them well-suited to help address many of the world's foremost challenges, including climate change. "It is incumbent on AIChE and its member stakeholders to apply their unique insights and technical abilities to identify viable solutions to mitigate, adapt, and become resilient to the effects of climate change," said Rehm. He added that a key task assigned to The Climate Solutions Community's Steering Committee will be to develop a portfolio of technical and government policy solutions necessary to address both industrial and societal challenges related to climate.

The Steering Committee includes representation from a spectrum of AIChE constituencies.

Members of the Steering Committee include Sunil Hangal (Environmental Compliance Assurance Management), Chair of the Environmental Division's Climate Change subcommittee; Dale Keairns (Deloitte Consulting), 2008 AIChE President and Chair of the Center for Energy Initiatives; Dan Lambert (Savannah River National Laboratory), a Past Chair of AIChE's Nuclear Engineering Division; Christopher Pope, member of the Societal Impact Operating Council; Mary Ellen Ternes (Earth & Water Law, LLC), Chair of the Public Affairs and Information Committee's Climate Change Task Force; and Neil Yeoman (Koch-Glitsch, retired), past two-term AIChE Director and a Founder of the Separations Division and Virtual Local Section. Darlene Schuster, Executive Director of the Institute for Sustainability, will work with the Steering Committee to launch the new community in early 2019.

To generate momentum for The Climate Solutions Community, the organizers will conduct a technical and information session at AIChE's 2019 Spring Meeting and Global Congress on Process Safety, March 31 to April 4, in New Orleans, LA. In addition to technical presentations, the program will include panel and group discussions addressing topics related to mitigation, adaptation, resiliency, and public policy.

Engineers and industrial scientists from across disciplines are invited to participate in The Climate Solutions Community. Areas of work will include mitigation of carbon footprints in electrical power generation and distribution, hydrocarbon processing, transportation, and urban areas; adaptation; and resiliency.

More information about The Climate Solutions Community and how to participate will be announced in early 2019.

Sponsors for 2019 - Thank You

Silver Sponsors

Business Climate Leaders



Business Climate Leaders is an action team of Citizens' Climate Lobby

Bronze Sponsors

Microrganic Technologies



Sponsorship of the South Texas Section – now on a rolling 12-month basis

In past years, sponsorship was tied to a calendar year. Those who became sponsors later in the year had less exposure than full-year sponsors, but at the same cost as full-year sponsors. A proposal to the STS Executive Committee, for sponsorships over a rolling 12-month period, was approved in mid-January. The 12-month rolling period will be based on the date of sponsorship application.

We will have eight STS meetings in 2019 in the greater Houston area on the west, east, north and south sides of the city so that we may try to cater to all our members across town. Please see the [dinner meeting schedule](#).

In 2019 we are offering three levels of sponsorships:

	Bronze	Silver	Gold
Looping PowerPoint at each of our eight 2019 dinner meetings during the social hour	10 second still	20 second silent video	60 second audio video
Self-promotion at dinner meetings		60 seconds in one meeting	Two minutes in each of three meetings
Display table at dinner meetings		One meeting	Three meetings
Opportunity to speak at an STS dinner meeting in 2020			✓
Complimentary dinner tickets for use at any dinner meeting during 2019	2	4	8
Plaque with sponsoring company Logo			✓
Sponsor Logo display in the monthly STS newsletter	✓	✓	✓
Acknowledgment from the meeting podium	✓	✓	✓
Donation to the South Texas Section	\$500	\$1,000	\$2,000

Advertisement – Order Now!

Careers in Chemical and Biomolecular Engineering

Victor Edwards
VHE Technical Analysis

Suzanne Shelley
Precision Prose Inc.
Chemical Engineering Magazine
Pharmaceutical Commerce Magazine

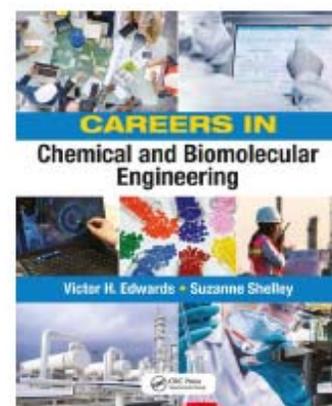
Providing a unique approach, this book conveys the scope of chemical and biomolecular engineering practice with the goal of helping interested potential students as well as graduating engineers understand the many engaging career pathways that are available in these dynamic fields.

KEY FEATURES

- Defines chemical and biomolecular engineering in practical terms, with emphasis on relating "classroom learning" to "real-world applications" to identify and describe potential career pathways.
- Describes both traditional and emerging careers pathways illustrated by in-depth profiles of 25 distinguished chemical and biomolecular engineers.
- Describes innovative alternative careers available to students with the knowledge, skills, intellectual rigor and problem solving capabilities that today's chemical engineer and biomolecular engineer possess.
- Helps students, parents, teachers, and advisors make informed choices when deciding whether to select these rigorous majors, and to broaden their search when seeking internships during college and graduate school, and post-graduation employment.

SELECTED CONTENTS

Profiles of 25 Working Engineers
 Preface for Students, Guidance Counselors, Mentors, and Teachers
 About the Authors
 Chapter 1 What Are Chemical Engineering and Biomolecular Engineering?
 Chapter 2 Historical Adventures in Chemical and Biomolecular Engineering
 Chapter 3 Where Do Most Chemical and Biomolecular Engineers Work? How Much Are They Paid?
 Chapter 4 Basic Concepts: Chemical Processes and Unit Operations
 Chapter 5 Basic Concepts: Equilibrium and Rate Processes
 Chapter 6 Basic Concepts: Separation Processes and Other Unit Operations
 Chapter 7 Basic Concepts: Dynamics and Control of Chemical Reactions and Processes
 Chapter 8 Basic Concepts: Creation and Stewardship of the Sustainable Process Plant
 Chapter 9 Roles Chemical and Biomolecular Engineers Play
 Chapter 10 Future Directions in Chemical and Biomolecular Engineering



Catalog no. K34943
 August 2018, 188 pp.
 ISBN:
 978-1-1380-9991-3
 \$59.95 / £46.99

SAVE 20% when you
 order online and enter
 Promo Code **FLR40**
FREE standard shipping
 when you order online

www.crcpress.com

e-mail: orders@crcpress.com

1-800-634-7064 • 1-561-994-0555 • +44 (0) 1235 400 524

FREE standard shipping when you order online.



CRC Press
 Taylor & Francis Group

“Careers in Chemical and Biomolecular Engineering”, by Victor Edwards and Suzanne Shelley, 188 pages, CRC Press/Taylor and Francis, Boca Raton, FL (2018)

This book is a combination of

a) an introduction to the discipline of chemical engineering (with biological applications), and
b) career guidance through the stories, experiences and words of 25 engineers educated in the discipline. Most are practicing or teaching the profession, and a few have used their undergraduate education to launch into other areas (e.g. law, medicine).

The text content is integrated with simple introductions to specific concepts, descriptive pictures and portraits. It is a beautiful, articulate, persuasive way to sell our profession to young people exploring career paths. The intended purchaser(s) appear to be

— high school and community college guidance offices,
— freshman engineering counselors and dean’s offices,
— freshman engineering students purchasing this as a supplemental or primary text in an exploration/intro course.

It is truly a shame there is not a better niche for this volume; because the book is truly inspiring. I would have jumped into this discipline with greater anticipation and confidence if I had read it as a 15-17 year old student!

Review by Marylee Z. Southard, Ph.D.

Associate Editor, Perry’s Handbook, 9th Edition

Associate Professor, Chemical & Petroleum Engineering

2019 STS Opportunities

2019 STS Speaking Opportunities

In 2019, the South Texas Section and our partners will continue very successful events:

- Networking lunch programs, on the east and west sides of town, two per month;
- Monthly dinner meeting workshops;
- A stand-alone workshop evening in December 2019;
- The Energy Forum in April 2019;
- The Water Forum in November 2019; and
- The Southwest Process Technology Conference in October 2019.

If you would like to speak at any of these events, please contact me.

2019 Exhibit Opportunities

There are exhibit opportunities at the Energy Forum, the Water Forum, and the Southwest Process Technology Conference (SPTC). In 2019, all will be held in the Houston area, including the SPTC which has been held in Galveston in recent years. If you choose to be a South Texas Section Sponsor, we can work out a discount arrangement for exhibiting at these three events.

2019 STS Theme: Global Warming Solutions

In our 2019 STS Monthly Dinner and Social Schedule, please note the topics of our March, April, May, and October dinner presentations. We are living in an unprecedented time in human history. Through industrialization, we are seemingly harming our planet. With the wealth of fossil fuels at hand, putting it to use was inevitable and during much of that use who could have foreseen its effects? Until recent years, climate change observations could perhaps be argued, but no longer.

At the AIChE Annual Meeting in Pittsburgh last month, the Institute for Sustainability (IfS) and the AIChE Board of Directors approved the formation of The Climate Solutions Community (TCSC). This community will be within the IfS. As with the IfS membership, TCSC membership will be multi-disciplinary. All engineers and industrial scientists will be welcomed to join the AIChE with the objective of working together to identify and recommend technically viable and marketable solutions. We need to begin turning the corner on this problem so that it can be done to maximize the economic benefit to our country. Energy markets can benefit, including oil and gas sectors, with planning. The mix will gradually change, but we will continue to need energy and an ever-increasing amount of it. We need and welcome companies in the oil and gas sectors to work with us to solve this problem.

Young Professional of the Month: Drew Hoffmaster



Our YP of the Month is Drew Hoffmaster. Drew is our 2019 Young Professionals Treasurer. Drew graduated in 2016 from Texas Tech University with a Bachelor's of Science in Chemical Engineering and a minor in Economics. After a process engineering internship his junior year, he moved into corrosion engineering with an internship at Lloyd's Register upon graduation. He has since moved to full time and is a Junior Engineering Consultant for LR, supporting the corrosion team as well as the implementation of Risk Based Inspection programs based on API standards.

2019 Southwest Process Technology Conference October 1-2, 2019



Join AIChE for the 11th Southwest Process Technology Conference October 1 – 2, 2019 Sugar Land Marriot Town Square

The South Texas Section of the AIChE, in partnership with AIChE HQ, is hosting its 11th Southwest Regional Process Technology Conference, now in Sugar Land. This conference highlights 8 core programming areas of chemical engineering and process technology, and features 2 keynote addresses.

2019 Southwest Process Technology Conference – Call for Volunteers!

11th Southwest Process Technology Conference October 1 – 2, 2019
Sugar Land Marriot Town Square

Volunteer duties typically include working at registration, as session aides for the technical presentations, assisting exhibitors, working meals and collecting event tickets.
Receive Free Registration for the day or days they volunteer!

Contact David Silarski @ sts-membership@aiiche.org and let him know if you can work one or both days.

Further information including a schedule will be sent out later!

2019 Offshore Technology Conference - Volunteers Needed

6 - 9 MAY 2019 at NRG Park, Houston, Texas, USA

Receive Free Pass*, Parking*, and all the free goodies/junk you can carry away! (* entire OTC). *Note: You can attend Technical Sessions.*

Must volunteer before 16 April 2019

Attend Orientation Meeting (*mandatory*) & serve 4 hours in either Arrangements, Registration, or Student Tours, or “1st Timers” Lounge/Orientation.

Contact Tom Menn @ thomasmenn@sbcglobal.net

University Outreach Volunteer Request

This fall, the Young Professionals will be reaching out to several universities in order to talk to their student AIChE chapters about career options, industry experience, and more!

If you're an alum of the University of Houston, Rice, Texas A&M, or Prairie View, or if you're just interested in sharing your chemical engineering experiences with students, then we would love to have you as a volunteer or even coordinator!

To volunteer, please contact Swarup Bade at sts-yp@aiche.org and include any universities you'd be interested in helping with. We'll contact you once we've secured a time and place!

Additional Volunteering Requests!

K-12 Events

Houston Food Bank

Mentoring Program

Energy Day (October 19)

Registration Table Greeters

Upcoming Events

The Climate Solutions Community (TCSC) Workshop



The Climate Solutions Community (TCSC) Workshop will be conducted on April 2, at [The Hilton New Orleans Riverside](#)

This workshop will be the first engagement of the TCSC. There is much work to do. Join us and become involved in working toward technically viable and marketable climate solutions.

- Welcome and Introductions, Tom Rehm, PhD ChE, AIChE South Texas Section Chair
- Shining Light on the Evidence of Climate Change
 - Presentation laying out the data on climate change, Tom Rehm et al
 - Questions for speaker(s)
- Panel Presentations and Q&A: Climate Solutions in Industry
 - Jimmy Kumana, MS ChE, chemicals, primarily energy efficiency
 - Mark Holtzapple, PhD ChE, Texas A&M, fuels, primarily biofuels
 - Charles Rhodes, PhD EE and Gene Preston, PhD EE, electricity, primarily generation
 - Q&A with Panel
- Break (30 minute conference-wide coffee break)
- Three Group Discussions for chemicals, fuels, and electricity: Climate-Change Issues for ChemEs
 - What issues do these industries face related to climate change?
 - Which issues are chemical engineers uniquely positioned to address?
- Three Group Discussions for chemicals, fuels, and electricity: Commercial Climate Solutions
 - What technologies exist to address issues identified in first breakout?
 - What are the gaps – which issues don't have a solution or a solution is available in another industry but not yet applied here?
- Summary and Next Steps

If you are planning to attend the AIChE Spring Meeting in New Orleans March 31 to April 4, take time to attend. If you hadn't planned on attending the Spring Meeting but are concerned about climate change, think about taking a couple of days off work to join us; per Google Maps, it's only a five hour drive from Houston to New Orleans. On the evening of April 2nd, attendees who want to lead in the TCSC will assemble at a nearby restaurant and continue our 'Next Steps' discussion.

Upcoming Events

Friday, May 17th - Third Friday Networking Lunch

The next STS-AIChE Third Friday Networking Lunch (TFNL) will be held on Friday, **May 17th from 11:30AM - 1:00PM** at the **Pipeline Grill** ([10003 Spencer Hwy La Porte, TX 77571](https://www.pipelinegrill.com)). There is no registration fee. The lunch menu ranges from \$8 to \$12, and the South Texas Section will subsidize lunches by \$5 per attendee. STS members as well as non-members are welcome to attend. We only request that you pre-register at the STS-AIChE.org website so we can get an accurate head count for the restaurant. STS-AIChE members as well as non-members are welcome to attend.

[Register at the AIChE STS website.](#)

Speaker: *Yougen Kong, Ph.D., P.E., Technical Support Manager, Gexcon US*

Dr. Yougen Kong is Technical Support Manager at Gexcon US, a leading process safety company with expertise in flammable gas dispersion, fires and explosions. He holds a Ph.D. in chemical engineering and is experienced in process hazard analysis, handling of hazardous chemicals and chemical manufacturing processes.

Gexcon US provides laboratory, research and development, advanced engineering services, and develops the industry standard CFD software for predictive consequences in the O&G industry.

Topic: *Using advanced CFD methods to predict and mitigate the hazards of flammable gas dispersion, fires and explosions*

The recent disastrous fires and explosions at KMCO in Crosby and ITC in Deer Park once again remind us of the importance of not only understanding the risks associated with unintentional releases of flammable hydrocarbons, but also help find ways to mitigate the potential for escalation of such incidents.

A large vapor cloud explosion (VCE) followed by a fire is one of the most dangerous and high consequence events that can occur at petrochemical facilities, such as what occurred at KMCO. As the size and complexity of facilities increase, designs must consider the potential adverse effects associated with not only the dispersion of flammable vapors but also the potential vapor cloud explosions in large congested areas. In fact, if a vapor cloud forms within a congested region and it is large enough, the resulting flame or deflagration can continually accelerate within this region and ultimately reach the point where the deflagration can transition to a more devastating detonation or deflagration-to-detonation transition (DDT). As the consequences of DDTs can be orders of magnitude larger than deflagrations, facilities that are at risk need to implement mitigation measures to prevent flames from continuously accelerating in these regions.

These types of flame acceleration phenomena also apply to storage tank depots. For example, the fire at the ITC facility in Deer park could have been much worse. Traditionally, chemical storage tank depots only consider single or multiple tank fires as the worst-case scenarios for their facilities, similar to that observed at the ITC facility. However, recent incidents have shown that massive explosions can in fact occur during storage tank overfills, whereby the product cascades down the tank wall and can form massive vapor clouds. If the vapor clouds migrate into confined spaces or congested areas, explosions can occur. Massive explosions that likely transitioned to DDT have occurred at chemical storage tank facilities and will be presented.

This presentation also shows how to use advanced computational fluid dynamic (CFD) methodologies to not only understand and predict the consequences of unintentional releases, such as the flammable vapor dispersion, fires and explosions, but also evaluate and apply mitigation measures to help manage such events.

For more information before the presentation, please review the below Youtube Videos:

[Gexcon Services](#) [Buncefield Explosion](#)

Have suggestions, ideas, comments or want to recommend a speaker for future FFNL events? Please contact William Pittman at WilliamPittman@micropackamericas.com.

Upcoming Events

2019 STS AIChE Ship Channel Tour Saturday June 1st, 5:30pm

2019 STS AIChE Ship Channel Tour!



Saturday, June 1, 2019 at 5:30 pm

[Houston Ship Channel](#)

[7300 Clinton Drive](#)

[Houston, Texas 77020](#)

Join the South Texas Section on our Ship Channel Tour the first Saturday in June! Tickets are free with a \$10 deposit placeholder for your spot which will be reimbursed to you on the night of the cruise when you attend. Guests are welcomed!

Register Here! <https://stsaiche.regfox.com/2019-ship-channel-tour>

Upcoming Events

Young Professionals STS-AIChE Happy Hour

May Happy Hour is planned to be at Lupe Tortilla 15315 North Freeway, Houston, TX 77090 from 4 to 7 pm on Friday, May 24th. Come out and have appetizers and drinks with us!

Click on the map below for directions. No RSVP Needed!



Young Professionals Annual Astros Game!

AIChE STS Young Professionals invites you to a night out at the Houston Astros game on Friday, July 19th!

The game against the Texas Rangers starts at 7:00 PM at Minute Maid Park. The cost of attending is only \$30 per person, which covers your game seat in Section 133. There also will be fireworks after the game! You are more than welcome to bring along a friend to the game. We hope to see you there!

Note: Any sales made after July 8 must be picked up at will call, all other tickets will be mailed. Tickets are limited to 4 per order to allow others to purchase tickets at this discounted price. If we are close to the game day and tickets are not sold out we will open registration up to allow for additional purchases.

If you are unable to attend after purchasing please inform Emily Jackson (at email below) or Bryan Pourchot (bryanpourchot@yahoo.com) so that a refund can be issued and tickets can be resold. For questions, contact the STS-YP Chair by e-mail at sts-yp@aiche.org.

*Please note that refreshments are not included in ticket price; this is different from previous years, due to a change in Astros group sales policies.

[REGISTER Here](#)



Past Events - Young Professionals

The STS-AIChE Young Professionals had their April YP Happy Hour at Buffalo Wild Wings in Katy! We had a great time networking! Looking forward to the next happy hour and meeting some new faces!

The OTC Bag Stuffing event was held April 27. Special thanks to Yurika for making it out to the event! We are providing bags for 150 teachers and 250 students that will attend the OTC Conference this year.



2019 STS-AIChE Monthly Dinner and Social Schedule



2019 South Texas Section Monthly Dinner and Social Schedule

January 10, The Bouganvilleas, 12126 Westheimer Rd, Houston

Mike Allison, Raptor Aerial Services
Drones, a new tool for industrial applications

February 7, Holiday Inn IAH, 15222 JFK Boulevard, Houston

Andrew Smith, Sympatec
Advances in lab and process particle characterization

March 7, The Bouganvilleas

Professor Mark Holtzapple, Texas A&M ChE Department:
Global warming: An engineering perspective

April 11 (in conjunction with the Energy Forum), Shaffai Hall, 1622 Federal Rd, Houston

Professor Pavel Tsvetkov, Texas A&M Nuclear Engineering Department
Gen IV Nuclear

May 9, The Bouganvilleas

Fanxu Meng, Houston Advanced Research Center
Extreme weather event resiliency

June – Ship channel cruise

July – Astros game

August – Alternate shot two-player-team pool tournament

September 5, The Bouganvilleas

Mike Foggia, Process Combustion Corporation:
Flameless thermal oxidation – Achieve 99.9999% DRE at < 2ppmv NOx

October 1 (in conjunction with the Southwest Process Technology Conference), TBD (southside of Houston)

The presenter will be a prominent individual with involvement in global warming solutions

November 7 (in conjunction with the Water Forum), Shaffai Hall

David Drerup, Operational Sustainability
Best practices in PSM data management

December – Holiday Season Social

This schedule does not include other STS events, such as networking lunches, workshops, plant tours, Young Professional events, K-12 outreach, PE review course offerings, etc. 2019 will be an exciting year for the South Texas Section. To become an STS volunteer, contact Tom Rehm at tom@tomrehm.com or 832-331-6491.

STS-AIChE Season Pass Information

General Comments

The STS-AIChE Season Pass offered the convenience of a single sign-up and single payment for all eight technical meetings in the 2019 season. Season Pass holders also received priority sign-up for all special events.

Season Pass holders receive a significant savings when comparing the on-site cost of the dinner meetings. No need to continue to monitor when meeting registrations are open. Save the hidden costs of multiple transactions and tracking the payments and reimbursements, if applicable.

Frequently Asked Questions (FAQ)

As a Season Pass Holder do I need to register for each dinner meeting?

No, there is no need to register or RSVP for the individual meetings once you have made your payment to become a Season Pass holder. We do however ask that you sign in at the registration table during the day of the event at the meeting venue.

What if I cannot attend a dinner meeting?

Guests and visitors are always welcome. Feel free to send someone else in your place and just let the people at the registration table know of the substitution.

What if I cannot attend the meeting and cannot find a substitute?

Even the most dedicated members cannot make every meeting. The season pass is priced assuming that you will miss a meeting. If you can provide at least a one week notice, by e-mailing the Chair-Elect at sts-chairelect@aiche.org, we can give you a guest pass for the next meeting. That way, you can invite your boss to the next meeting to see what you missed!

I am a big supporter of the section, but I don't want my name posted all over the web. Can I opt-out of the publications?

Yes, just let us know and we will not put your name on our list so that you can continue to fly under the radar. You always have the option of hand writing a name tag.

Will I still get in if I forget my name tag at home?

Yes. We keep a master sign-up list at the door. Patrons are at the top of the list!

I normally sign up in advance. Am I still saving money?

Yes. The Season Pass is eight meetings for the price of seven. You will also save the time and effort of multiple payments.

STS-AIChE 2019 Season Pass

2019 STS-AIChE Patrons

First Name	Last Name	Company Name
Yurika	Diaz Bialowas	Chemstations, Inc.
Travis	Fixmer	LyondellBasell
Jordan	Pearce	PSE
William Paul	Waits	Core Engineering
Jack	Chosnek	KnowledgeOne LLC
Dale	Embry	ConocoPhillips
Matt	Clark	Armstrong Engineering Associates
George	Vourazeris	Airgas Merchant Gases
Matthew	Kolodney	Entech Engineering
Victor	Edwards	
Sanjay	Sharma	Honeywell
Maximo	Salazar	Process Eng
Tom	Rehm	The Climate Solutions Community
Tom	Menn	
Gus	Georgeton	LyondellBasell
Joseph	Ramey	Westchase Design
Gary	Miller	Air Liquide
John	Middleton	WorleyParsons
Julie	White	Chevron
Erin	Green-Colaco	
Jay	McCorkle	WorleyParsons
Gary	Gildert	Vanguard Catalyst, LLC.
Ravindra	Saxena	ANR Consulting
Talia	Sanchez	Spirit Environmental, LLC
Jeffrey	Melland	Melland Engineering & Consulting
Trevor	Rice	Chemstations, Inc.
Carol	Schmidt	Wood
Venkat R.	Voruganti	Continental Carbon Company
Deborah	Evans	

South Texas Section Corporate Liaison Program

The intent of the program is to have a liaison contact at companies in the region that employ a large group of Chemical Engineers, so that the liaison can pass on information on upcoming events, and encourage attendance at STS-AIChE Events.

This program will make it easier for Chemical Engineers to learn about meetings and events that may interest them, and by providing a “personal touch” and intra-company networking opportunity, overcome potential fears or objections to participating. The program will also provide a potential opportunity for employees to be recognized as leaders within their company.

Responsibilities and benefits are listed in the table below.

STS-AIChE	Liaison	Company
Responsibilities		
<ul style="list-style-type: none"> ✦ Provide meetings and events ✦ Maintain list of liaisons ✦ Send out special emails to liaisons ✦ Advertise program and recognize liaisons and companies 	<ul style="list-style-type: none"> ✦ Forward STS-prepared emails to department/group ✦ Create meeting invitations for coworkers ✦ Try to set up carpools where able ✦ Attend meetings where possible ✦ Interface with Company Management on STS activities and sponsorship opportunities (as applicable) ✦ Provide feedback to STS Officers on company interests and comments 	<ul style="list-style-type: none"> ✦ Support the liaison ✦ Advertise where applicable
Benefits		
<ul style="list-style-type: none"> ✦ Higher attendance ✦ Better corporate relations 	<ul style="list-style-type: none"> ✦ Personalized Nametag for meetings ✦ Demonstrated leadership within company ✦ Increased networking ability within corporation ✦ PDH credits/technical education 	<ul style="list-style-type: none"> ✦ Recognition at meetings ✦ PDHs / education for employees ✦ Networking/team building opportunities

In early 2016, Travis Fixmer, a Process Optimization and Design Engineer with Huntsman Performance Products, developed an intranet website which promotes our Section and its activities within Huntsman. He offered to be a resource to individuals who would like to do the same. If you would like to promote our Section, Travis can provide you with guidance on how to proceed.

Others in our section send intra-company emails promoting the South Texas Section. This can be easily done by simply forwarding the STS monthly meeting notice email to employees in your company.

There is no cost for liaisons or companies to participate. Participation as a liaison is completely voluntary, and companies can transition to a new liaison or end their participation at any time.

If you have any questions, please contact Tom Rehm at tom@tomrehm.com or 832-331-6491.



South Texas Section AICHE

STS-AICHE
P.O. Box 421373
Houston, TX 77242

2018 Officers and Contact Information

Officers

Chair Tom Rehm
sts-chair@aiche.org

Chair Elect Mark S. Harkness
sts-chairelect@aiche.org

Past Chair Carlos Salamanca
sts-pastchair@aiche.org

Secretary Debra McCall
sts-secretary@aiche.org

Treasurer Yurika Díaz Bialowas
sts-treasurer@aiche.org

Executive Committee

Position 1: Education
Babak Rafienia
sts-position1@aiche.org

Position 2: Outreach
Sheena Reeves
sts-position2@aiche.org

Position 3: Communications
Meghan Spivak
sts-position3@aiche.org

Position 4: Human Resources
Dr. William Pittman, Ph.D.
sts-position4@aiche.org

Volunteers

Arrangements: [John Middleton](#)
Awards: [Tom Menn](#)
Membership: [David Silarski](#)
Webmaster: [Talia Sanchez](#)
Young Professionals: [Emily Jackson](#)

SOUTH TEXAS SECTION MISSION STATEMENT

As a section of AICHE, we serve chemical engineering professionals in the South Texas region through education, professional development, and networking.

Vision 2018

We will become an organization with strong and active membership. We will accomplish this through:

1. Increasing awareness
2. Improving relevancy of our programs
3. Improving our governance
4. Hospitality/Welcome/Social

— SUBSCRIBE/UNSUBSCRIBE INFORMATION —

Our newsletter subscription list is by invitation only.

Subscribe: Click on the following link: [Subscribe](#).

Unsubscribe: Click on the following link: [Unsubscribe](#). Your email address will be removed from the subscriber list.

— MAINTAIN YOUR CONTACT INFORMATION WITH STS —

Maintain your contact information with the South Texas Section using the online community: <http://www.aiche.org/>

Contact the AICHE for PERMANENT ADDRESS CORRECTIONS:

 <http://www.aiche.org/contact/form>

 1-800-AICHE (1-800-242-4363)

 AICHE Home Office
120 Wall Street, FL 23
New York, NY 10005-4020

AICHE Customer Service Center
100 Mill Plain Rd 3rd Fl
Danbury, CT 06811

The South Texan Newsletter Crew

WHAT DO YOU THINK OF THE NEWSLETTER? We want to know!

Contact us at sts-newsletter@aiche.org with comments, questions, suggestions, and ideas for next month.

Newsletter Editor

Meghan Spivak
sts-position3@aiche.org

Submit an article! Contact:

Matt Kolodney
713-471-8956
MKolodney1@comcast.net

Reserve your ad space! Contact:

Yurika Diaz Bialowas
sts-treasurer@aiche.org

