

# *The South Texan*



Thursday, April 11, 2019

Monthly Meeting @ Shafaii Party & Reception Hall

([1622 Federal Road, Houston, TX 77015](#))

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](#)!

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## April Dinner Meeting

Dinner Speaker: Pavel V. Tsvetkov, Ph.D.

**Title:** *Generation IV Nuclear Power: Energy Approach in the 21st Century to Global Warming Challenge*



**Abstract:** This seminar will offer an overview of emerging and expected Generation IV nuclear energy systems focusing on their capabilities in addressing energy needs and global warming challenges in the 21st century while being developed and deployed as sustainable energy solutions with minimized environmental footprint. Nuclear power is a contemporary advanced energy source that carries a substantial potential for our future. This is because there is no green house gas emission from nuclear power plant. It is a very special energy source that humans mastered only recently. There is no need for oxygen to get energy out and there are no greenhouse gas emissions. In this talk, promises, advantages and challenges associated with nuclear energy will be discussed. Technologies themselves, evolution of nuclear energy systems and their impact on our planet will be addressed. Nuclear energy offers opportunities for and seeks collaborations with chemical engineers to jointly address global warming challenges.

## April Dinner Meeting

**Speaker Bio:** Mark Dr. Tsvetkov is an Associate Professor in the Department of Nuclear Engineering, Texas A&M University. Dr. Tsvetkov's research program is focused on novel energy systems meeting global growing needs in sustainable resources. The project portfolio since 2005 includes direct energy conversion, waste management efforts to dramatically reduce nuclear waste via irradiations in high temperature reactors and fast spectrum systems, novel reactor designs, dry cask evaluations (loading, dry cask pad studies, longevity), and instrumentation and control efforts to develop control algorithms, novel sensors based on fiber optics, full scope simulators for security assessments, data analysis and reconstruction for nuclear security applications, nuclear criticality safety. Dr. Tsvetkov is a member of ANS, ASME, ASEE, Alpha Nu Sigma and Phi Kappa Phi. At A&M, he serves as the graduate program advisor for Nuclear Engineering. He served as an editor and major contributor for 11 books on energy, environment and nuclear energy. Dr. Tsvetkov has 2 patents pending on reactor design and energy conversion. He published over 300 manuscripts to peer journals, conference proceedings and reports.

**Interests:** design and optimization, data analysis and reconstruction, novel sensors, waste management, novel nuclear reactors including gas-cooled reactors and fast reactors, micro-reactors, direct energy conversion

## 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
<b>Regular/Retired</b>	\$25	\$35	\$35	\$45
<b>Student / Unemployed</b>	\$15	\$25	\$25	\$35

## Meeting Location— Shafaii Party & Reception Hall



This month's meeting will be held at Shafaii Party & Reception Hall ([1622 Federal Road, Houston, TX 77015](#))

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

## April Meeting Dinner Menu

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### Menu : An Italian Evening with STS AIChE at the Shafaii Party & Reception Hall

#### Buffet Dinner:

Garden salad - Crisp Romaine, with sliced cucumbers, cherry tomatoes croutons, and your choice of Italian or ranch dressing.

Caesar Salad - Crisp Romaine, croutons, Parmesan cheese, and house Cesar dressing.

Chicken Marsala - Lightly grilled chicken Breast with a house made Marsala wine sauce.

Beef Lasagna - Multilayered Lasagna with ricotta and beef marinara sauce.

Garlic Mashed Potatoes - Fresh made mashed potatoes with a hint of roasted garlic.

Grilled Asparagus - Fresh Asparagus, lightly grilled until tender.

#### Vegetarian Dinner Option:

Vegetable Stuffed Portabella Mushroom with a Balsamic Glaze\*\*

\*\* This dish is by request only – reservations are due two (2) days before the event.

#### Dessert:

Triple Chocolate Cake

Seasonal Fruit Trays

#### Coffee Station:

Regular Coffee

Decaffeinated Coffee

#### Non-Alcoholic Beverages:

Iced Tea with Lemon Wedges

Water

#### Alcoholic Beverages:

Cash Bar\*\*

\*\* Cash only – no electronic payment option

Online Registration closes at 4PM the day prior to the event (Wednesday April 10th). After this time, you may register at the door.

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## Texas Industrial Energy Management Forum

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*Texas Industries of the Future*

### Energy Efficiency's Role in Reliability – What's in it for us and what can we do about it?

Thursday, April 11, 2019  
4 to 6 pm

**Shafaii Hall and Garden**  
[1622 Federal Rd. #30](#)  
[Houston, Texas 77015](#)

To register, please go to:  
[https://texasiof.ceer.utexas.edu/forms/TIOFevent\\_registration.cfm](https://texasiof.ceer.utexas.edu/forms/TIOFevent_registration.cfm)

- |                |  |
|----------------|--|
| 3:30 - 4:00 pm | Forum Registration/Sign-In and Visit with Exhibitors   |
| 4:00 - 6:00 pm | Industrial Energy Management Forum   |
| 6:00 - 7:00 pm | Networking and Exhibition (sponsored by AIChE-STS)<br>A number of companies who bring value to energy management in the process industries will have tabletop exhibits set up as a focal point for the networking session. A cash bar will also be available   |
| 7:00 - 9:00 pm | Optional <a href="#">AIChE - STS Dinner and Speaker</a> (non-members are welcome)<br>You are invited to attend the STS-AIChE dinner meeting at Shafaii Hall and Garden. You must register and pay for the dinner separately to attend the STS Dinner Meeting. More information can be found on the <a href="#">STS-AIChE website</a> . |

Since the beginning of time, man has tried to make efficient use of fire, water and wind. It continues today and is ever so important in your industrial operations that require heating, cooling and compressed air. Consistent with our forum's theme - Energy Efficiency's Role in Reliability – What's in it for us and what can we do about it? – in this forum, our panelists will highlight how these systems can impact your operations' reliability.

Each panelist will provide a 20-minute presentation on the forum topic followed by a panel discussion and Q&A from the audience.

More information about the Program and Presentations can be found on the Texas Industries of Future website and at the following link:

[Program Information](#)

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## April 2019 STS-AIChE Chair's Letter – Tom Rehm

Hello South Texas Section,

At our March 7<sup>th</sup> STS Dinner, Mark Holtzapple, Texas A&M University Chemical Engineering Professor, delivered a presentation entitled "Global Warming, An Engineering Perspective." There was considerable interest in his presentation, not all one-sided as some do not think global warming is occurring, or that it is due to natural causes, or that it is nothing to be concerned about.

Our monthly pop quiz seems to be an enjoyable addition to the evening. Thus far these are the pop quiz questions and their correct answers:

**January:** Matching question. Sea level rise since 1961 (2.5" at Los Angeles, 6" at Boston, 12.5" at Galveston)

**February:** Matching question. Summary of severe accident fatalities (for incidents with more than 5 fatalities) in generating electricity, 1969-2000, excluding power distribution, per Paul Scherrer Institut, Switzerland. (Fatalities per terawatt-years, in OECD/non-OECD countries: coal, 157/597; gas, 85/111; hydro, 3/10285; nuclear, 0/48)

**March:** Multiple choice. According to MIT projections, the average surface temperature of the earth will be 2°C warmer than preindustrial temperatures. Choices: 12 yrs, 19 yrs, 30 yrs. Correct answer is 19 years. MIT projects the average surface temperature of the earth in 2038 will be 2.0 degrees Celsius higher than pre-1880 temperature.

At our April 11<sup>th</sup> STS Dinner, Pavel Tsvetkov, Texas A&M University Nuclear Engineering Professor, will deliver a presentation entitled "Generation IV Nuclear Power: Energy Approach in the 21st Century to Global Warming Challenge." The venue is the Shaffai Party & Reception Hall, 1622 Federal Rd., Houston (on the east side). I look forward to seeing you there!

The 2019 Science and Engineering Fair was a great success. I would like to thank our volunteers: Matt Kolodney, Cecelia Burns, Connor Schonert, Erin Colaco, Dave Mitchell, Nick Collett, Satyajit Verma, Mark Smith, Pete Garside, Paul Waits, Joshua Bordin, Carol Schmidt, Yurika Bialowa, Vic Edwards, and Meghan Spivak. Your contribution to the South Texas Section and to this year's Science and Engineering Fair cannot be overstated. With volunteers like you, we cannot fail to have a positive impact within greater Houston.

By the time this April issue of *The South Texan* hits the newsstands, our support of HISD's "When I Grow Up" Career Expo, March 23, Hattie Mae White ESC, 4400 West 18th Street, Houston, will have been chalked up as another STS volunteer success story. I want to thank Matt Kolodney and Connor Schonert for organizing that effort. Events on the horizon are the Scout Fair (April 6), the ECH Annual Awards & Networking Banquet (May 30), and the Sally Ride Festival (Fall 2019). To volunteer for these events, please contact Matt Kolodney ([mKolodney1@comcast.net](mailto:mKolodney1@comcast.net)) or Connor Schonert ([connorschonert@yahoo.com](mailto:connorschonert@yahoo.com)).

This year we will once again support the Offshore Technology Conference, to be held May 5-8 at the NRG Park. Please contact Tom Menn to volunteer; [ThomasMenn@sbcglobal.net](mailto:ThomasMenn@sbcglobal.net).

When this issue of *The South Texan* appears, the AIChE Spring Meeting will be almost upon us. On March 31<sup>st</sup>, the AIChE will issue a press release on the launch of The Climate Solutions Community. If you want to be involved in climate solutions, please contact Tom Rehm at [tom@tomrehm.com](mailto:tom@tomrehm.com). If you are at the Spring Meeting, please arrange to attend our workshop on April 2<sup>nd</sup>, 1:30-5:00pm, in Churchill B1.

Congratulations to college students receiving awards at our March 7<sup>th</sup> dinner meeting:

University of Houston – Amin Henini, Nour Hoelscher, Danielle London

Rice University – Shomik Sen, Devanshi Wadhawa, Kevin Zhang

Prairie View A&M University – Kameron Flourney, Lashavio D. Little, Chielotam Marvellous Oguejiofor

Texas A&M University – Markham Benn II, Allison Bordovsky, Christopher Rodeheaver

I look forward to seeing you at The Shaffai Party & Reception Hall on April 11 for our monthly Dinner Meeting. Prior to our evening social hour, we are partnering with Texas Industries of the Future to host the Texas Industrial Energy Management Forum, 4-6pm. Plan to attend the Energy Forum; see information in this issue.



## 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



## 2019 STS Opportunities

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### 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.

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## STS-AIChE 2019 Young Engineer of the Year: Swarup Bade

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Swarup Bade P.E is a Senior Process Engineer/ Safety Consultant working for Lloyd's Register He has more than 12 years of experience in the field of Chemical process engineering and process safety. He moved to Houston more than a decade ago and loves being part of his friends groups "Parrots" and "UNITED". He has been active with local and national professional organizations including the American Institute of Chemical Engineers (AIChE). He has served in various roles and has finished serving a term as the Chair for AIChE-STS Young Professionals.

Swarup graduated with a Masters in Chemical Engineering from IIT, Chicago and Bachelor's in Chemical Engineering from GMRIT, Rajam. He is a Licensed Professional Engineer (P.E) in the State of Texas. He has won the "Power of You", "Bronze Star Performance" and "Safety Superstar" awards for his role in various engineering and safety projects over the years. He loves being outdoor and enjoys spending time with his daughters, listening to music, cooking, and running. He is a huge fan of footballs, NFL and so called soccer and follows Texans, Bears, and Chelsea FC. He participated in the Chevron marathon and BP MS-150 few times over the years.

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## STS-AIChE Annual Awards

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### It's STS Awards Nomination Time!

Nominations are being accepted thru May 1, 2019 for the following STS Annual Awards:

- 2018 STS Best Applied Paper Award
- 2018 STS Best Fundamental Paper Award
- 2018 STS Best In Practice Paper Award **\*\*NEW!!\*\***
- 2018 STS Outstanding Young Professional Award (Under 35)
- 2018 STS Distinguished Service Award (Over 36)
- 2018 STS Special Service Award(s)

Nomination Forms are available in *The South Texan* or nominations may be made using the STS web-site (<https://www.aiche.org/community/sites/local-sections/sts/forms/sts-award-nomination-form>) or by contacting:

Matt Christiansen    281-544-6476    Matthew.Christiansen@shell.com

Tom Menn            281-485-3719    [ThomasMenn@SBCGlobal.net](mailto:ThomasMenn@SBCGlobal.net)

Ryan Stephens      281-544-8447    Ryan.Stephens@Shell.com

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## STS-AIChE Annual Awards

### South Texas Section – AIChE 2018 Annual Awards Nomination Form

THIS NOMINATION FORM MUST BE RECEIVED BY **MAY 1, 2019** TO BE ACCEPTED!

*Mail the completed form to:*

Thomas E. Menn	Or	Matt Christiansen, PhD	Or	Ryan Stephens, PhD
Awards Chair		Best Papers Judging Chair		Best Papers Judging Co-Chair
P. O. Box 458		Shell Projects and Technology		Shell Global Solutions (US) Inc.
Pearland, Texas 77588-0548		Technology Center		
		3333 Highway 6 South		
		Houston, Texas 77082		
Tel.: 281-485-3719		Tel.: 281-544-6476		Tel: 281-544-8447
<a href="mailto:ThomasMenn@SBCGlobal.net">ThomasMenn@SBCGlobal.net</a>		<a href="mailto:Matthew.Christiansen@shell.com">Matthew.Christiansen@shell.com</a>		<a href="mailto:Ryan.Stephens@shell.com">Ryan.Stephens@shell.com</a>

Following receipt of the submitted nomination, you will receive an e-mail from the STS Awards Committee confirming receipt of the nomination after AIChE & STS Membership is verified. **All Best Paper Nominees not Members of AIChE or STS -- AIChE may wish to join AIChE and/or STS -- AIChE before May 31, 2019 in order to be eligible for the recognition due a STS – AIChE Member Best Paper Award Recipient.**

**NOTE: ONLY ONE PERSON OR PAPER MAY BE NOMINATED PER FORM!**

**NOMINATOR'S NAME:** \_\_\_\_\_

**ADDRESS:**

**STREET:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ **STATE:** \_\_\_\_\_

**ZIP CODE:** \_\_\_\_\_

**TELEPHONE NUMBER: AC:** \_\_\_\_\_ **NO:** \_\_\_\_\_

**E-MAIL ADDRESS:** \_\_\_\_\_

I wish to nominate \_\_\_\_\_

(Enter Name of Nominee or Title of Paper on the above line.)

**ENTER CONTACT INFORMATION FOR NOMINEE OR AUTHOR:**

**NOMINEE or AUTHOR'S NAME:** \_\_\_\_\_

**ADDRESS:**

**STREET:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ **STATE:** \_\_\_\_\_

**ZIP CODE:** \_\_\_\_\_

**TELEPHONE NUMBER: AC:** \_\_\_\_\_ **NO:** \_\_\_\_\_

**E-MAIL ADDRESS:** \_\_\_\_\_

## STS-AIChE Annual Awards

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TYPE OF NOMINATION: (PLEASE CHECK ONLY ONE SPACE BELOW.)

2018 STS Outstanding Young Professional Award (*Under age 35*) \_\_\_\_\_

2018 STS Distinguished Service Award (*Over age 35*) \_\_\_\_\_

2018 STS Best Fundamental Paper Award \_\_\_\_\_

2018 STS Best Applied Paper Award \_\_\_\_\_

2018 STS Best In Practice Paper Award **\*\*NEW!!** \_\_\_\_\_

For STS Outstanding Young Member or Distinguished Service Awards, please state the reason you feel that this person is deserving of this award back of this form and ignore the rest of the form. You may attach any supporting documentation to this form.

### For Best Paper Nominations

Please enter the name of the nominated 2018 Best Paper again:

\_\_\_\_\_  
(Sorry to trouble you but this is in case the sheets get separated.)

Enter the contact Author's name again:

\_\_\_\_\_  
(Sorry to trouble you but this is in case the sheets get separated.)

Check Best Paper Category Again:

Fundamental \_\_\_\_\_

Applied \_\_\_\_\_

In Practice \_\_\_\_\_

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## STS-AIChE Annual Awards

FOR BEST PAPER NOMINATIONS, LIST THE NAMES OF THE AUTHORS AND CHECK ALL BLANKS THAT APPLY:

### MEMBERSHIP

Note: At least one (1) author must be a STS Member.

AICHE    STS

Co-Author # 1: \_\_\_\_\_

Co-Author # 2: \_\_\_\_\_

Co-Author # 3: \_\_\_\_\_

Co-Author # 4: \_\_\_\_\_

Co-Author # 5: \_\_\_\_\_

Co-Author # 6: \_\_\_\_\_

Co-Author # 7: \_\_\_\_\_

Co-Author # 8: \_\_\_\_\_

Co-Author # 9: \_\_\_\_\_

[Add addition Authors on an attached sheet as necessary.]

For Best Paper Nominations, please provide following information:

NAME OF PUBLICATION: \_\_\_\_\_

DATE OF PUBLICATION: \_\_\_\_\_

VOLUME NO. (If known): \_\_\_\_\_ PAGES: \_\_\_\_\_ to \_\_\_\_\_

PLEASE ATTACH A COPY OF THE ARTICLE FROM THE PUBLICATION TO THIS FORM OR IF THIS IS NOMINATION IS TENDERED BY E-MAIL, PLEASE ATTACH AN ELECTRONIC VERSION OF THE PUBLISHED ARTICLE.

*Following receipt of the submitted nomination, you will receive an e-mail from the STS Awards Committee confirming receipt of the nomination after AIChE & STS Membership is verified. All Best Paper Nominees not Members of AIChE or STS may wish to join STS or AIChE and STS until May 31, 2019 in order to be eligible for the recognition due a STS – AIChE Member Best Paper Award Recipient.*

## Young Professional of the Month: Holly Fitch

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Holly is a Process Controls Engineer for Marathon Petroleum at the Galveston Bay Refinery in Texas City. She recently graduated with honors from Texas A&M University in December '18 after completing 3 internships with Marathon and finding a passion for the oil and gas industry. Holly was involved in the Programs Committee for the campus AIChE chapter during her time at A&M, and is excited to continue her involvement with AIChE and meet other young professionals and experienced chemical engineers in the area. Additionally, she was the President of an organization called Texas Runners Against Cancer (TRAC) for two years. She is a Houston-native and can often be found running around town in her free time.

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## 11th Southwest Process Technology Conference - Volunteers Needed

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**October 1-2, 2019**

[Sugar Land Marriott Town Square](#)

The South Texas Section of the American Institute of Chemical Engineers, in partnership with the AIChE HQ, is hosting its 11th Annual AIChE Southwest Process Technology Conference at the Sugar Land Marriott Town Square, October 1 & 2, 2019. The conference provides technical sessions, industry solutions in process technology, and networking opportunities for the nearly 500 chemical engineers and students that attend, as well as exhibits, a career fair, a happy hour reception and a student program.



### **CALL FOR 2019 SPTC VOLUNTEERS:**

Volunteer duties typically include working at registration, as session aides for the technical presentations, assisting exhibitors, working meals and collecting event tickets.

**Volunteers will receive free registration for the day or days they volunteer. If you are interested contact David Silarski at [sts-membership@aiche.org](mailto:sts-membership@aiche.org) and let him know if you can work one or both days.**

Further information including confirmation and a schedule will be sent out later. It will be a greater conference because of your assistance.



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## 2019 Offshore Technology Conference - Volunteers Needed

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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 “1<sup>st</sup> Timers” Lounge/Orientation.

Contact Tom Menn @ [thomasmenn@sbcglobal.net](mailto:thomasmenn@sbcglobal.net)

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## University Outreach Volunteer Request

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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 Emily Jackson at [sts-yp@aiche.org](mailto: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!

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## Community Outreach Volunteers needed for 2019 Trash Bash

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### 2019 Trash Bash - Saturday March 30, 2019

Please join STS AIChE in their support of environmental stewardship at the Buffalo Bayou. Every March, thousands of people in the Houston/Galveston area gather to clean tons of trash from our waterways. The mission of Trash Bash is to promote environmental stewardship of our watershed through public education by utilizing hands-on educational tools and by developing partnerships between environmental, governmental, and private organizations. Volunteers will help clean the waterways by picking up trash.

Please fill out the registration form and bring it with you to the event. A link to the form is located below.

[Trash Bash Registration Form](#)

[Click here for Schedule and Directions to the event.](#)

#### IMPORTANT DETAILS:

**What to Wear:** We will be walking around in tall grass, so please wear closed toed shoes, long pants, and long sleeves.

**What to Bring:** If you have Rakes or other equipment that would aid in picking up trash please bring it along. Make sure to fill out the registration/waiver form linked to above. Any minors attending will need to have one signed by a parent as well.

**Before you attend:** Please watch this short [safety video](#).

**Community Outreach Organizers will provide:** Waters and light snacks for volunteers. Please ensure you've had an adequate breakfast, as we will be out in the sun.

**Trash Bash will provide:** gloves, trash bags, t-shirts, lunch, and door prizes at the end.

**Where to meet:** We will meet at the Terry Hershey Park Parking within 7:30 am and 8:00 am

**Where we will be cleaning:** The areas to be cleaned are the wooded areas along Buffalo Bayou in Terry Hershey Park from Highway 6 to Beltway 8. We will also clean parts of Langham Creek. Transportation is provided to and from various sites.

**What time is the event:** Registration, safety, and transportation to the cleanup site will start at 8 AM, please try and arrive 10-15 minutes early so we can get our group together before things start. Cleanup will end at 11 AM. From 11 AM to noon we are invited to join the rest of the TrashBash volunteers in a free lunch, door prizes, and entertainment. A full schedule is available at the link above.

Please contact Sundar Viswanathan at [sundara.vis@gmail.com](mailto:sundara.vis@gmail.com) for any questions.

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## Upcoming Events

### The Climate Solutions Community (TCSC) Workshop

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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.

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## Upcoming Events

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### April 5th - First Friday Networking Lunch

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The next STS-AIChE First Friday Networking Lunch (FFNL) will be held on Friday, **April 5th from 11:30AM - 1:00PM** at the **Wyndham Houston West Energy Corridor Park Restaurant and Grill** ([14703 Park Row Dr, Houston, TX 77079](https://www.wyndhamhotels.com/houston/wyndham-houston-west-energy-corridor-park-restaurant-and-grill)). The restaurant is located on the east side of the hotel and there is designated parking available. The lunch menu is an all-inclusive buffet style for \$16 per person and STS-AIChE subsidizes the lunch by \$5. The non-refundable \$11 registration fee includes the subsidized lunch buffet and attendance for the lunch presentation and networking. Pre-registration reserves your seat and walk-ins welcome on an as available basis. STS-AIChE members as well as non-members are welcome to attend.

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

**Topic: Cost Effective Methods for Design & Construction of Laboratory Facilities & Technical Facilities**

**Speaker:** Dennis Brewer, Owner and Operator, Brewer Construction

Dennis Brewer has 43 years of experience in construction and has been involved in laboratory and technical construction for 39 years. He began his construction career in Baytown, Texas where he worked as a carpenter and superintendent on various petrochemical and refinery construction projects.

Starting in 1980 while working with a laboratory construction contractor, he began developing a skill set in laboratory and technical facility construction. Most of the client base for those projects were industrial and commercial in nature. From 1987 – 1991, he lived in California where he worked with clients on projects that involved biotechnical, pharmaceutical, and cleanroom environments. Today, he is the owner and operator of Brewer Construction Services, LLC with his sons Nathan and Travis. When not building laboratories, he enjoys being involved with family and hobbies include outdoor sports of hunting and fishing and occasionally is on a golf course.

Dennis enjoys sharing his industry knowledge and has presented at several seminars and conferences including the Lab Wise Best Practices Conference, SEFA Conference, and Gulf Coast Conference. In 2006, he was invited to be one of twelve judges on the Judges Panel 2006 for R&D Magazine in Chicago, IL for Lab of the Year. He is an active member of Association of Chemical Industry of Texas (ACIT), Associated Builders and Contractors (ABC), Bay Area Houston Economic Partnership (BAHEP), Houston Area Safety Council (HASC), Katy Economic Development Council (Katy EDC), and Scientific Equipment and Furniture Association (SEFA).



## Upcoming Events

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### April 5th - First Friday Networking Lunch

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**Abstract:** Cost. For most corporations, it is the single most important consideration in any building project involving a laboratory. Cost is largely determined by the systems required in laboratories and technical facilities. Because these systems - from HVAC to electrical to plumbing - drive up the cost per square foot of lab space compared with non-lab (office, storage, or commercial) space, the question of cost is especially important. Furthermore, companies must consider the return on investment in a lab. It may take years for the investment in a lab to pay off, with most of the cost invested up-front to design and build the facility. Determining and controlling cost therefore becomes a major focus in the development of virtually every laboratory project.

Laboratory design, therefore, is generally determined by cost. For decades, the industry has looked for simple ways to answer the question of laboratory construction cost. It is easy to be lured into using formulaic cost estimates based on an average cost per square foot for some set of laboratories already built. After all, the formulaic approach to cost estimation works well for certain types of construction projects, including office building and retail centers. Even a "typical" university laboratory cost / sq. ft. is fairly simple to estimate based on such a formula, since most college laboratories with mirror image design are built to accommodate a finite set of experiments which are repeated at predictable intervals over many years. With so few variables to sway cost one way or another, university labs tend to fall within a few % (+ or -) of an average cost / sq. ft.

Every industrial, commercial, analytical and R&D laboratory, however, is a unique entity. Therefore, using an average cost per square foot in budgeting for a non-university laboratory leads to three possible outcomes, two of which are undesirable. The project may be canceled before it is even designed because the total budget runs too high for approval. The project might run over budget during the construction phase - imagine the difficulty in obtaining additional funding for the project half way to completion. Finally, it is possible that the project will be completed at the anticipated, budgeted amount. The likelihood of this third outcome is questionable, however, since the costs / sq. ft. average represents just that: an average. It does not represent the real cost of creating the lab in question.

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

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## Upcoming Events

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### Young Professionals STS-AIChE Happy Hour

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Come join the YPs for a happy hour - network with other chemies!!

When: April 26 from 5:00 pm to 8:00 pm

Where: Buffalo Wild Wings in 19910 Park Row, Katy, TX 77449

Click on the map below for directions.



No RSVP Needed.

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### Young Professionals OTC Bag Stuffing Party

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When: April 27, 2019 from 10:00 am to 2:00 pm

Please contact the YP Chair, Emily Jackson, at [e.jackson.ut@gmail.com](mailto:e.jackson.ut@gmail.com) or 512-661-8223 for the venue. Please come the whole time, or when you can. Lunch will be provided!!

## Past Events - Young Professionals

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The STS-AIChE Young Professionals also had their March Networking Happy Hour of the year at General Public at the City Centre, Houston on the 22nd of March. The event was well attended. Among the things discussed were how to achieve more interaction between the YPs and the STS-AIChE chapter, volunteer events, and future YP events.





## 2019 STS-AIChE Monthly Dinner and Social Schedule



**AIChE**  
American Institute of Chemical Engineers

### 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 Intercontinental Airport (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 NO<sub>x</sub>

**October 1 (in conjunction with the Southwest Process Technology Conference), Marriot Sugarland**

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](mailto:tom@tomrehm.com) or 832-331-6491.*

## STS-AIChE Season Pass Information

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### 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](mailto: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.

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

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](mailto: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](mailto:sts-chair@aiche.org)

**Chair Elect** Mark S. Harkness  
[sts-chairelect@aiche.org](mailto:sts-chairelect@aiche.org)

**Past Chair** Carlos Salamanca  
[sts-pastchair@aiche.org](mailto:sts-pastchair@aiche.org)

**Secretary** Debra McCall  
[sts-secretary@aiche.org](mailto:sts-secretary@aiche.org)

**Treasurer** Yurika Díaz Bialowas  
[sts-treasurer@aiche.org](mailto:sts-treasurer@aiche.org)

### Executive Committee

**Position 1: Education**  
Babak Rafienia  
[sts-position1@aiche.org](mailto:sts-position1@aiche.org)

**Position 2: Outreach**  
Sheena Reeves  
[sts-position2@aiche.org](mailto:sts-position2@aiche.org)

**Position 3: Communications**  
Meghan Spivak  
[sts-position3@aiche.org](mailto:sts-position3@aiche.org)

**Position 4: Human Resources**  
Dr. William Pittman, Ph.D.  
[sts-position4@aiche.org](mailto: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-AIChemE (1-800-242-4363)



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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](mailto:sts-newsletter@aiche.org) with comments, questions, suggestions, and ideas for next month.

### Newsletter Editor

**Aniket Patankar**  
[sts-position3@aiche.org](mailto:sts-position3@aiche.org)

### Submit an article! Contact:

**Matt Kolodney**  
713-471-8956  
[MKolodney1@comcast.net](mailto:MKolodney1@comcast.net)

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