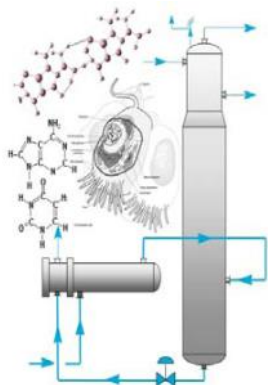


# October Newsletter

Chicago Section

[www.aiche.org/Chicago](http://www.aiche.org/Chicago)

October 2014



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## AIChE Chicago October Meeting

**“Calculating the Capacity of  
Chemical Plants”**

**Dr. Russel Ogle**  
**Principal Engineer**  
**at Exponent**



**Date:** **Wednesday, October 15th, 2014**

**Location:** **Clarion Inn & Waterford Banquet  
& Conference Center**

**933 South Riverside Dr, Elmhurst, IL**

**630-279-0270**

**Cost:** **AIChE Global and Local Section Member: \$40**

**AIChE Global Member: \$45**

**Non-Member: \$50**

**Students: \$10**

**Unemployed/Retired: \$15**

**Register Here:** <http://www.cvent.com/d/z4qgb3>

### Agenda

5:30 - 6:30	Registration and social hour—Cash bar
6:30 - 7:30	Dinner
7:30 - 8:45	Technical presentation

## Chair's Corner

First I would like to thank all the people who supported the local section by attending the September meeting. Dr. Clark gave an interesting and informative talk about the food industry to a full house of professionals and students.

I also appreciate the generosity of the members who sponsored students for this meeting. It is a key role of our technical community to bring the younger generation and get them involve as many ways as possible. They need to see the value that is offered to them.

With permanent connections and instant two-way (and more) communications and almost infinite collaboration possibilities that exist these days what is the role of professional associations? You can ask the same question about the news outlets and their role. What about the many independent cab services that one can get these days?

These questions don't have simple (and even a correct) answer, but they have one common aspect. The difference between "Uber" and "American Taxi" is that you are possibly paying less but most likely won't get a standard service. While this may not be necessarily bad, the unknown factors can cause serious problems. This is only a service, and can be adapted and used on a daily ba-

sis in the near future.

The news and media on the other hand might need a little more trust. It was just last year that a fake tweet from AP account caused trouble in the business world for a short time. Again having variety of sources of information has many benefits but has challenges as well.



With this lengthy introduction, I want to bring us back to the first question: the role of professional society and its value, I hope by now you have one answer: trust. It is needless to say that AIChE and all professional societies put a lot of effort to ensure high quality products are provided to their audience. While a google search may bring up what you are looking for in the first two pages, the main question is that if the source trusted. We are certainly not looking for information and knowledge with a short half life.

AIChE provides a relax environment for you to flourish both technically and in your soft skills. It is intended to be a one stop shop for chemical engineers around the globe. Many new international student chapters and local sections have been added during the recent years.

It is surprising that the membership is not increasing and there is a big effort to figure out possible reasons and solutions to this common problem among professional societies. As an example, the membership committee is trying to understand the needs of graduate students and postdoc fellows and fulfill them as much as possible. Any ideas and suggestions are welcome with this regard.

I want to close this months chair corner by inviting you all to our next monthly

meeting which in on October 15 in Elmhurst. I hope to see you all in there.

And one last thing, here is a link to AIChE students pocket handbook which can be used by all of us.

<http://www.aiche.org/sites/default/files/docs/overview-page/9865-14aichestudenthandbookfinalpdf.pdf>

*Azita Ahmadzadeh*

AIChE Chicago Chair person  
UOP, A Honeywell Company

## ERNEST W. THIELE AWARD

The Ernest W. Thiele award is sponsored by BP and recognizes the outstanding contributions to our profession by a Midwest region chemical engineer. This award was established by the AIChE Chicago Section and is presented annually to a Midwest region AIChE member. This internationally recognized award consists of an engraved plaque and \$1000 honorarium presented at our sectional meeting.

**Nomination forms and additional information can be obtained from the Thiele Committee Chair. Completed nominations are due to the committee chair no later than March 1, 2015**

One of the highest honors a distinguished chemical engineer can receive is our Chicago Section Thiele award. Please consider nomi-

nating a deserving engineer for this prestigious award.

### Jim Simnick

BP Amoco Complex, J-8  
150 W. Warrenville Road, Naperville, IL 60566  
Ph 630-420-5936, fax 630-420-4832  
email: [james.simnick@bp.com](mailto:james.simnick@bp.com)

[Link to Memorial Tributes \(National Academy of Engineering\) about Ernest W. Thiele](#)



*Ernest W. Thiele*

## **October Meeting Information**

### **“Calculating the Capacity of Chemical Plants”**

**Dr. Russel Ogle**

#### **Abstract:**

The production capacity of a chemical plant is a fundamental measure of its economic potential, and an integral factor in the assessment of a chemical plant's value. Although capacity is a central concept in production planning and scheduling, a universally recognized definition and method of evaluating it does not exist. Operations management and chemical engineering literature separately acknowledge the importance of capacity, but do not offer a cohesive explanation. This presentation provides this missing insight with a comprehensive definition and description of capacity, as well as a means to calculate and evaluate it.

#### **Biography:**

Russ is a Principal Engineer with Exponent, Inc. (Warrenville, IL, Phone:(630) 658-7502, Email: [rogle@exponent.com](mailto:rogle@exponent.com)), where he specializes in the investigation of complex industrial accidents, catastrophic fires and explosions, and incendiary fires. He is experienced in process hazard analysis, consequence assessment, risk assessment, and decision analysis. In addition to his work in pro-

cess safety, he regularly consults with clients on process systems engineering, particularly in the areas of plant performance and process operations. He has extensive



experience evaluating the performance of chemical process plants including the analysis of process flowsheets and production data, the determination of plant capacity, the identification of production bottlenecks, and the investigation of product quality issues. He is a registered professional engineer in the states of Illinois, Texas, Louisiana, Arkansas, and Alabama, and is a Certified Safety Professional. He received his BS in Chemical Engineering from Purdue University and his PhD in Chemical Engineering from the University of Iowa.

#### **To Register:**

<http://www.cvent.com/d/z4qgb3>

## September Meeting Summary

The first monthly meeting of the 2014-2015 AIChE Chicago year was a success! Many members chose to tour the RAM brewery in Schaumburg before the meeting and enjoyed seeing how their beer was made. Speaker Dr. J. Peter Clark spoke of how the Food Safety and Modernization Act (FSMA) affected food production and processing and how chemical engineers contribute to making food safe.

For larger photos, visit our [Picasa web album](#) or go to our [Facebook Page](#)!



## *Young Professionals News*

### **Chemistry Day**

**Museum of Science and Industry, Chicago  
Saturday, October 25th**

YP is working with the Chicago Section of the American Chemical Society (ACS) to help celebrate chemistry! During National Chemistry Week, ACS will be hosting a free event for all ages with experiments, demonstrations, and exhibits all focused on this year's theme - "The Sweet Side of Chemistry - Candy". YPC will be asking for a few volunteers in the coming weeks--so keep the date in mind if you would like to help!

### **Wine Tour and Tasting**

The Young Professionals Committee (YPC) is working on setting up a wine tasting and tour for October. More details to come soon — watch out for an email on the YPC mailing list!

### **YP Happy Hour at Hofbrauhaus in Rosemont**

This month the Young Professionals group kicked off their year with a happy hour at the Hofbrauhaus in Rosemont on September 23rd. Members enjoyed German food, traditional music, and locally-brewed Oktoberfest beer! We had a great turnout and were glad to see several new people join us as well!



## Upcoming AIChE Conferences and Webinars

<u>October</u>	
5-Oct	<a href="#">International Conference on Greenhouse Gas Technologies GHGT-12</a>
	<a href="#">GHGT-12 Greenhouse Gas Control Technologies Conference</a>
6-Oct	<a href="#">XXVII Interamerican Congress of Chemical Engineering</a>
	<a href="#">XXVII Congreso Interamericano y Colombiano de Ingeniera Química</a>
	<a href="#">15th Asian Pacific Confederation of Chemical Engineering Congress</a>
8-Oct	<a href="#">Alternative Natural Gas Applications Workshop</a>
9-Oct	<a href="#">Waste-to-Energy Research and Technology Council (WTERT) 2014</a>
	<a href="#">6th AIChE Southwest Process Technology Conference</a>
26-Oct	<a href="#">The 4th International Gas Processing Symposium</a>
<u>November</u>	
14-Nov	<a href="#">2014 Annual Student Conference</a>
16-Nov	<a href="#">2014 AIChE Annual Meeting</a>
19-Nov	<a href="#">Sustainable Packaging Symposium SPS '14</a>
<u>December</u>	
7-Dec	<a href="#">The 2nd IBN International Symposium</a>
14-Dec	<a href="#">2014 Global Summit on Process Safety</a>

## Upcoming Chicago Local Section Meetings

*Wednesday, Nov. 12*

*Dr. Robert Kleinberg*

*There is no monthly meeting for the month of December.*

# CALL FOR TECHNICAL CONTRIBUTIONS



**AIChE**<sup>®</sup>  
MIDWEST  
REGIONAL  
CONFERENCE

**2015 AIChE Midwest Regional Conference**

**March 12 — March 13, 2015**

**Chicago, IL**

**Organized by Chicago Local Section of AIChE**

The “Call for Technical Contributions” for the [2015 AIChE Midwest Regional Conference](#) is now open:

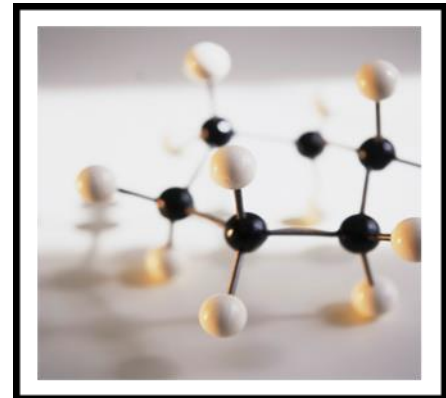
<http://www.aichemidwestconference.com/#/presentations>

## Contributions are sought the following areas:

- Energy and Sustainability
- Biochemical/Biomed. Engineering
- Refining & Petrochem. Processing
- ChE Education & Prof. Develop.
- Fluid Prop., Dynamics, & Trans. Phenomena
- Process Safety & Occupational Health
- Process Eng. and Optimization
- Catalysis & Reaction Engineering
- Environmental Engineering

## Contributions may be in the form of:

- Contributed Presentations
- Poster Presentation



Please check the [invited speaker website](#) for updates on confirmed speakers

For questions, please feel free to contact a member of the [Meeting Program Committee](#).



## ***AIChE Virtual Career Fair***

Looking for a Job? Register for AIChE's Online Career Fair

Fall 2014 Virtual Career Fair  
12:00-3:00 EST  
Special Student hour: 3:00-4:00 EST



For more information and registration, visit [AIChE's Virtual Career Fair Website](#).

### ***AIChE Chicago has a new look!***

We are pleased to reveal our newly website for AIChE Chicago. Feel free to Take a Peek.

We hope you will visit the new website at our new address, [www.aiche.org/Chicago](http://www.aiche.org/Chicago) and while you are there, let us know what you think! We know there is still work to do, and in the coming months, we hope to continue improving the site so that it best serves how we communicate with you.



Thank you for being part of AIChE Chicago!

[www.aiche.org/Chicago](http://www.aiche.org/Chicago)

**[AIChE Chicago is now on Facebook and LinkedIn!](#)**



Like us on Facebook [www.facebook.com/AIChEChicagoSection](http://www.facebook.com/AIChEChicagoSection)



[Join our group on LinkedIn!](#)

## AIChE Global Election – Vote Now!

It's election season. Historically, AIChE National elections have been won by very small margins because few people vote. The National AIChE election is underway.

Paper ballots for the election of AIChE's 2015 President-Elect and Directors were mailed on Tuesday, September 2. The online electronic proxy will be open for voting on Tuesday, September 16 and close at **11:59 PM EST, October 21, 2014**

Profiles of the candidates for this year's election are available at

<http://www.aiche.org/about/governance/elections/2014-board-directors-election#Slate>.

Here you will find the candidates' bios and platform statements that outline their view for AIChE.



If you choose to participate in the election online, you will need your Member ID, which will serve as your Personal Identification Number. If you have any questions regarding your member information, please contact the AIChE Member Service Center toll-free at [800.242.4363](tel:800.242.4363) (U.S.) or visit [www.aiche.org/phone](http://www.aiche.org/phone) (outside U.S.) to obtain your country's number, or email [customerservice@aiche.org](mailto:customerservice@aiche.org).

If you have any questions regarding the election or voting process, please email [election@aiche.org](mailto:election@aiche.org).

## Why Renew Your AIChE Membership?

**Renew your membership now to keep learning and growing.**

Renew Membership



**Stay Connected to 40,000+ international members who take advantage of:**

- Subscription to AIChE's flagship publication: CEP\*
- Education—Access to e-learning courses and instructor-led training, offering Continuing Educations Units and PDHs
- Discount Access to Live and Archived, on-demand webinars and conference presentations from industry and academic luminaries
- Access to CareerEngineer—a comprehensive job site tailored to chemical engineers
- Access to the AIChE eLibrary—a wealth of information from Knovel Life Sciences and the McGraw-Hill AccessEngineering Library collections
- Registration discounts to the AIChE Spring and Annual Meetings
- Online networking via AIChE's Member Community and via ChEnected, the Association's blog
- Insurance and Financial Planning Programs – discounts and coverage

**[View COMPLETE benefits](#)**

**IIT Chemical Engineering Department**  
**Fall 2014 Seminar Series**



**Department of Chemical and Biological Engineering**

**Wednesday, 3:15 pm – 4:30 pm**  
**Perlstein Hall Auditorium, Room 131**  
**10 West 33<sup>th</sup> Street, Chicago**

- Sept 3 Carl Laird (Purdue University)  
Parallel Algorithms and Applications in Structured Large-Scale Optimization
- Sept 10 Sohail Murad (Illinois Institute of Technology)  
Fluid and Nanoparticle Transport in Lipid Bilayer Membranes Using Coarse Grained Molecular Dynamics Simulations
- Sept 17 Jennifer Fiegel (University of Iowa)  
Aerosol Interactions with Pulmonary Fluid Interfaces
- Sept 24 Elizabeth Biddinger (City Colleges of New York)  
Investigating Ionic Liquids in Electrochemical Applications
- Oct 1 Vibha Kalra (Drexel University)  
Freestanding Nanofiber Electrodes for Supercapacitors and Batteries
- Oct 8 Sankaran Sundaresan (Princeton University)  
Shear Flows of Dense Granular Assemblies
- Oct 15 Ray Adomaitis (University of Maryland)  
Reaction Factorization for the Dynamic Analysis of Thin-film Deposition Systems
- Oct 22 Arijit Bose (University of Rhode Island)  
Emulsions, Electrodes and Polymer Composites Using Carbon Black and Graphene-Based Materials.
- Oct 29 Nancy Karuri (Illinois Institute of Technology)  
TBD
- Nov 5 Jan Sengers (University of Maryland)  
Fluctuations in Nonequilibrium Thermodynamics
- Nov 12 OPEN
- Nov 19 No Seminar (AIChE Annual Meeting)
- Nov 26 No Seminar (Thanksgiving Holiday)
- Dec 3 OPEN



## PRELIMINARY DAILY PROGRAM:

8:30–9:15 a.m.

### Engineering Student Activities Fair

Meet with current engineering student organizations

9:15–10 a.m.

### Presentation on Engineering Careers

Learn about how engineers contribute to all aspects of society

10–10:45 a.m.

### Demonstration Sessions

Robotics demonstration, formula hybrid race car, engineering games

10:45–11:30 a.m.

### Engineering Panel Session

Learn about the day-to-day activities of practicing engineers and engineering students; time to ask your most burning questions

11:30 a.m.–12:30 p.m.

### Engineering Lunch

An opportunity for one-on-one discussions with engineering professionals and students

12:30–1:30 p.m.

### Keynote Speaker

**Astronaut Al Sacco**, the first chemical engineer in space!

1:30–2:30 p.m.

### Tours of the Illinois Tech campus

Only **200** students are accepted for each day and spaces fill up fast!

Questions?  
Please contact:

Ross Ludwig at  
rludwig1@iit.edu or 312.567.5193

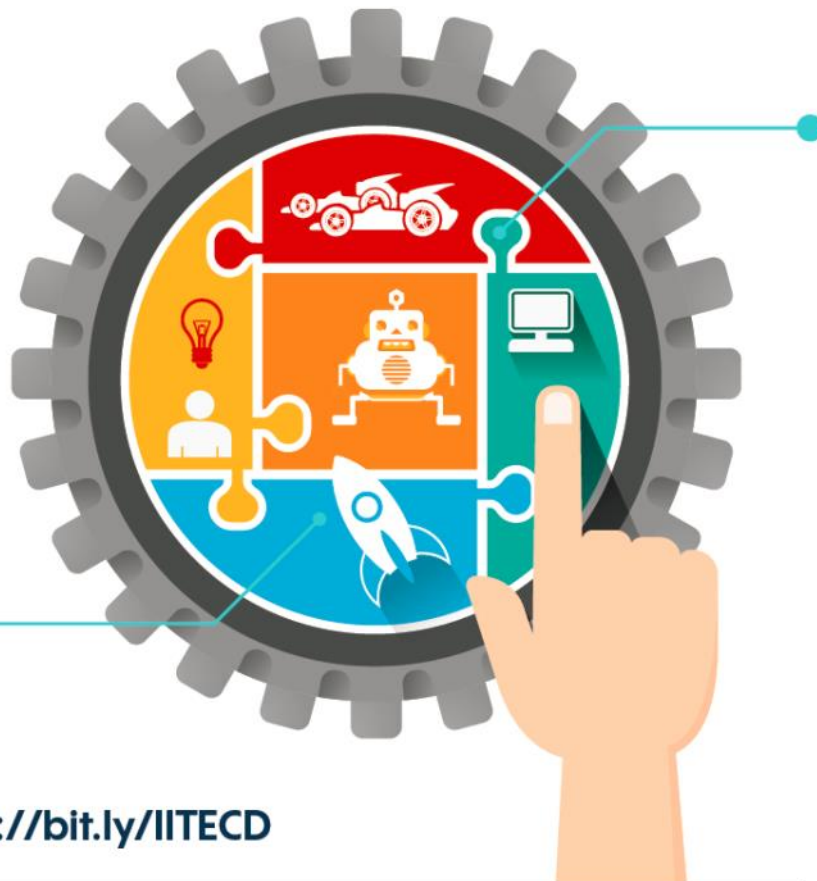
## SAVE THE DATE

# Engineering Career Day

March 12 or 13, 2015

Illinois Institute of Technology  
Hermann Hall

Sponsored by the American Institute of Chemical Engineers and IIT Armour College of Engineering



Register online at: <http://bit.ly/IITECD>

HOSTED BY



ILLINOIS INSTITUTE OF TECHNOLOGY



**ACS**  
Chemistry for Life®

## National Chemistry Week 2014 Illustrated Poem Contest: “The Sweet Side of Chemistry–Candy”

The **Chicago** Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten - 12th grade.

Contest Deadline: **All entrees must be received by Monday, October 27<sup>th</sup>, 2014 to be considered.**

Prizes: **TBD**

Contact: **Entries must be Emailed to [chicagoacs@ameritech.net](mailto:chicagoacs@ameritech.net) Include completed entry form with each submission**

Winners of the **Chicago** illustrated poem contest will advance to the ACS National Illustrated Poem Contest!

Write and illustrate a poem using the NCW theme, “**The Sweet Side of Chemistry–Candy**”. Your poem must be **no more** than 40 words, and in the following styles to be considered:

**HAIKU • LIMERICK • ODE • ABC POEM • FREE VERSE • END RHYME • BLANK VERSE**



**Participants are encouraged to explore topics related to:**

- Physical properties of candy
- Sugar vs. alternative sweeteners
- Ingredients in candy and candy making
- Any other relevant topics

**Entries will be judged based upon:**

- Relevance to and incorporation of the theme
- Adherence to poem style
- Word choice and imagery
- Originality and creativity
- Colorful artwork
- Overall presentation



#### Contest Rules:

- Poems must conform to a particular style. No poem may be longer than 40 words.
- The topic of the poem and the illustration must be related to the NCW 2014 theme, “**The Sweet Side of Chemistry–Candy**”.
- All entries must be original works without aid from others.
- Each poem must be submitted and illustrated on an unlined sheet of paper (of any type) not larger than 11” x 14”. The illustration must be created by hand using crayons, watercolors, other types of paint,

- colored pencils or markers. The text of the poem should be easy to read and may be printed with a computer, before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.
- Only one entry per student will be accepted.
- All entries must include an entry form.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners’ names, likenesses and entries for editorial, advertising and publicity purposes.



National Chemistry Week (NCW) 2014  
 “The Sweet Side of Chemistry—Candy”

**ILLUSTRATED POEM CONTEST ENTRY FORM**

Please fill out this form, print, and attach to the back of the poems. All fields are required. Incomplete forms will invalidate the entry. The receipt deadline for the Chicago Local Section Contest is Monday, October 27th, 2014.

Student's Name							
Grade							
Parent/Guardian							
<b>School or sponsoring group:</b> <i>(e.g. Boys and Girls Club or Scout Troop, 4-H, etc.)</i>							
Teacher's Name							
School Address							
Address Line 2							
City				State		Zip	
<b>Judging Category</b>							
K-2 <sup>nd</sup>	<input type="checkbox"/>	3 <sup>rd</sup> -5 <sup>th</sup>	<input type="checkbox"/>	6 <sup>th</sup> -8 <sup>th</sup>	<input type="checkbox"/>	9 <sup>th</sup> -12 <sup>th</sup>	<input type="checkbox"/>
<b>FOR LOCAL SECTION USE ONLY</b>							
Local Section Name (Number)							
NCW Coordinator Name							
Telephone							

### Officers and Contact Information

Chair	Azita Ahmadzadeh <a href="mailto:Azita.ad@gmail.com">Azita.ad@gmail.com</a>
Chair Elect	Adam Kanyuh <a href="mailto:Adam.kanyuh@honeywell.com">Adam.kanyuh@honeywell.com</a>
Chair Programming	Mike Toraason <a href="mailto:mtoraason@bakerrisk.com">mtoraason@bakerrisk.com</a>
Secretary	Jarad Champion <a href="mailto:Jarad.champion@gmail.com">Jarad.champion@gmail.com</a>
Treasurer	Pat Shannon <a href="mailto:shannonph@middough.com">shannonph@middough.com</a>
Newsletter Editors	Azita Ahmadzadeh <a href="mailto:azita.ad@gmail.com">azita.ad@gmail.com</a>
	Janet Werner <a href="mailto:Janet.werner@sensient.com">Janet.werner@sensient.com</a>

### Directors at Large

Dan Rusinak	Steve Wozniak <a href="mailto:Steve.wozniak@honeywell.com">Steve.wozniak@honeywell.com</a>
Jenn Guilfoyle <a href="mailto:Jennifer.guilfoyle@honeywell.com">Jennifer.guilfoyle@honeywell.com</a>	

## AICHE CHICAGO SECTION

American Institute of Chemical Engineers

Chicago Section

13964 Doral Lane

We are on the web  
[www.iche.org/Chicago](http://www.iche.org/Chicago)

**We want you for AIChE-Chicago!**

**We need your help!**

How many opportunities can you find to learn project management, delegation and leadership skills for free? Becoming an officer in the Chicago Section of AIChE is such an opportunity. While you're learning new skills, your local network grows. Just about all of us are either undergoing a career change, contemplating a career change, or are wondering if our career will be changed for us. Volunteering with AIChE is a way to add skills and accomplishments to your resume.

[aichechicago@gmail.com](mailto:aichechicago@gmail.com)

<http://www.iche.org/community/sites/local-sections/chicago/announcements/volunteerism>

## Submitting Articles to AIChE Columns

We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AIChE Board of Directors. Chicago AIChE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

Please submit your material to [aichechicago@gmail.com](mailto:aichechicago@gmail.com) with "newsletter article" as a subject line.

AICHE Publicity Committee Fees	Academic (non-AICHE)		Company		Recruiters	
	Per Month	Per Year	Per Month	Per Year	Per Month	Per Year
<b>Advertisements (3X3)</b>	100	450	150	675	N/A	N/A
<b>Half-Page (~7"x 4.5")</b>	280	1260	420	1890	N/A	N/A
<b>Job Posting (Size?)</b>	50	225	100	450	250	N/A
<b>Special Sizing</b>	Contact Publicity Committee <a href="mailto:aichechicago@gmail.com">aichechicago@gmail.com</a>					

For the purchase of a year ad, customers have the option of changing ads/jobs month to month. Online payment can be done using <http://www.cvent.com/d/9cq5pw/4W>

Student and AIChE Member Related Postings are Free.

