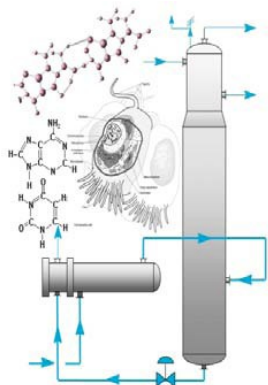


September Newsletter

Chicago Section

www.aiche-chicago.org

September 2013



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AIChE Chicago September 2013 Meeting Notice

Current State of Refining Industry & Upcoming Challenges

Richard Rossi

UOP Business Development Director

CITGO Lemont Refinery Tour

Date: *Tuesday, September 10th, 2013*

Location:

MEETING: The Public Landing
200 W 8th Street (158th & Archer)
Lockport, IL 60441

TOUR: CITGO Petroleum
Lemont Refinery
135th Street and New Avenue

Cost: **Members: \$35** **Non-Members: \$40**

Students: \$5 **Unemployed Members: \$20**

To Register Please Click here;

<http://www.cvent.com/d/r4q77>

Agenda

4:15-4:45	Bus 1 Assemble in the CITGO Administration Building parking lot
4:45-5:15	Bus 2 Assemble in the CITGO Administration Building parking lot
5:30	Registration at Public Landing, cash bar
6:30	Dinner
7:45	Technical presentation
9:00	Busses leave Public Landing and go to the CITGO parking lot

Chair's Corner

While there has been quite a bit of news lately about fracking and the benefits that will come to the US from that new technology, I thought it would be appropriate this month to take a look at what's going on in other parts of world. On August 12 the Institution of Chemical Engineers (IChemE) published their vision of the future in a report titled, ***Chemical Engineering Matters***. *Chemical Engineering Matters* outlines IChemE's broader thinking on the areas where the profession creates, maintains or improves quality of life. You can download a copy of this report from this website: http://www.icheme.org/media_centre/technical_strategy/chemical%20engineering%20matters.aspx. Their report acknowledges that fossil fuel assets will maintain a central position in the world's energy economy for decades, but it warns that a shift towards decarbonisation and sustainable energy use is required.

IChemE is an international organization started in England in 1922 so it is a bit younger than AIChE (1908). In fact, IChemE is about the same age as AIChE Chicago (December 15, 1924). It has 36,000 members in over 120 countries while AIChE has about 45,000 members in over 90 countries. IChemE has two offices in cities the UK, and it also has offices in Australia, China, Malaysia, and New Zealand.

Since the *Chemical Engineering Matters* document is 28 pages long, here's a bullet item summary of the major topics covered in their *Chemical Engineering Matters* report:

- Safety – promote a thorough understanding of hazard, risk and reduction at all stages in the process lifecycle and introduce a new international qualification for process safety professionals
- Education – support a global professional community via integrated training and professional development
- Research – press for investment in applied research
- Energy – support chemical engineers in all parts of the energy economy from world-scale carbon management to renewable energy
- Water – provide support to chemical engineers

in the water community and explore ways of securing viable industrial and municipal water supplies

- Food and Nutrition – promote the role of chemical engineering in the delivery of sustainable food solutions



- Health and Wellbeing – deliver more healthy and sustainable lifestyles and highlight the impact of the discipline in the pharmaceutical and bioscience sectors

- Political dimension – work with groups and leadership around the world to develop coherent policy goals

- Economic dimension – continue to highlight the role of chemical engineering in improving process efficiency and reducing costs to deliver cheaper, more sustainable consumer products

Public understanding – encourage its members to engage productively in public conversation about the impact of chemical process and products.

The document insists that the Institution remains politically neutral, but does cite the need for greater engagement with policy-makers to ensure decisions that impact funding and regulation be evidence based. It also highlights the need for increased public engagement to overcome a negative, often inaccurate, public perception of chemistry, chemicals and chemical engineering.

In closing, please remember to vote for AIChE board of directors. The deadline for National to receive ballots is September 16th. Also, in October our meeting will be at Argonne National Laboratories, and there are some special requirements for non-US citizens who tour Argonne. An Argonne on-line form must be submitted before September 4th for non-US citizens to attend that meeting. A link to that form is on the meeting summary page, and here:

https://webapps.anl.gov/registration/visitors/tour?sponsor_email=patcanaday@anl.gov&tour_date=10-16-13&tour_group=AiChE

Jerry Wilks

Chair

September Meeting Information

Richard J. Rossi

“Current State of Refining Industry & Upcoming Challenges”

Abstract:

The refining industry continues to be dynamic, experiencing many changes over the past several years. Many of these changes have been driven by the rapid development of tight light oil in the U.S. from places like the Bakken in North Dakota and Eagle Ford in Texas. I will review the changes which have taken place as well as the implications for refining outside the U.S.. I also plan to touch upon fuel quality changes and the potential substitution of natural gas as a transportation fuel, as well as the continued restructuring of the refining industry.



Biography:

Rich Rossi Rich Rossi is the Director of Planning and Work Processes in UOP's Process Technology & Equipment Business Unit (PT&E). Prior to this assignment, Rich was the Industry Segment Leader for Hydroprocessing, FCC, and Heavy Oils in the PT&E Business. He has also served as the Manager for Hydrocracking Catalyst Technology and as the Technical Service Group Leader for the Catalyst, Adsorbent & Specialties Business Unit. Prior to joining UOP, Rich was the Senior Hydroprocessing Technology Specialist for BP servicing their 5 U.S. refineries, as well as having held positions in BP's Toledo and Marcus Hook refineries. Rich started his career in Exxon Research & Engineering, holding various positions in their Synthetic Fuels Department. Rich holds a B.S. in Chemical Engineering from New Jersey Institute of Technology and an M.B.A. from North Central College in Naperville, Illinois.

AICHE National Election – Vote Now!

Historically, AIChE National elections have been won by very small margins because few people vote. The National AIChE election is underway. All ballots must be received by 11:59pm, September 16th, 2013. You can vote by proxy on-line until September 16th. As hard copy ballots must be received by September 16th, it is doubtful that you have time to vote by hard copy. The Tellers Committee will meet September 12th. Results will be officially announced November, 2013 at the AIChE Annual Business Meeting in San Francisco, CA.

Profiles of the candidates are on the National AIChE web site at

<http://www.aiche.org/about/governance/elections/2013-board-directors-election-timeline#Slate>

If you have not already done so, read the profiles and vote now by proxy at

<http://www.societyelection.com/SocietyElection/AIChE/index.asp>

Your member ID number is required. Your vote does matter!



AIChE Chicago Section Scholarship Fund

My fellow AIChE members;

Someday we shall all want to retire and enjoy the fruits our labors. Toward that goal, we need to plan ahead and perhaps train our replacements to follow in our very large footsteps. You can do that with little effort by helping the next generation of engineers to obtain their engineering education. The AIChE Chicago Section established its affinity Scholarship, available only to immediate family of AIChE Chicago section members, for just that purpose. By making a contribution to the principal of the Scholarship Fund, which is separate from the section operating funds, you can make that happen.

Please consider a donation to the AIChE Chicago Section Scholarship Fund by:

- funding immediate need,
- contributing to the endowment of the scholarship program, or
- both of the above.

Managers: We need to continually fill the pipeline of engineers graduating into our profession. Small contributions now will pay big dividends later when it comes time to fill positions opening up by retiring employees of your enterprises.

AIChE-Chicago members: Is your son, daughter, spouse and grandchildren thinking about becoming a Chemical Engineer? If so, they could, as an entering freshman or continuing undergraduate chemical engineering student, apply for the AIChE Chicago Section Scholarship. Small contributions now yield big dividends for future engineers.

Education reduces the risk of problems associated with poverty; engineers solve problems and design the products and systems that improve the quality of life. Please invest in educating future engineers and join me in contributing to the AIChE Chicago Section Scholarship Fund. You may want to consider this as a part of your annual giving plan.

☐ \$ 25.00 ☐ \$ 100.00 ☐ \$ 1000.00 ☐ Other

☐ Immediate need ☐ Endowment ☐ Both

Please make all checks payable to AIChE Chicago Section Scholarship Fund, and mail them to:

AIChE Chicago Section Scholarship Committee

13964 Doral Lane
Homer Glen, IL 60491
aichechicago@gmail.com

Or:

Visit <http://www.cvent.com/d/j4q7yv/4W>

and click on the "Donate" button, and make your contribution using credit card.

When making a contribution, please provide your name and USPS and/or electronic address. The section will send a thank you letter to document your contribution to a AIChE, a non profit organization under the IRS code at section 501(c)3 (Tax Deductible).

Thank you in advance for your consideration and/or contribution.

Very truly yours,

Azita Ahmadzadeh

AIChE Chicago Section Scholarship Development Team

Scholarship Program

PURPOSE

One of the purposes of the Chicago Section as stated in the By-Laws is to foster engineering education. The scholarship program is one way this is accomplished.

ELIGIBILITY

Eligibility for a scholarship is, in accordance with the wishes of the original donor and donors since then, limited to persons who are:

1. Closely related to an AIChE Chicago Section member in good standing at the time of application. "Closely related" means: A) Children and grandchildren, whether natural, adopted, stepchild, or ward; B) Parents; or, C) Legal spouses.
2. Undergraduate or graduate student membership shall not be sufficient qualification for either the student member or a member of their family, unless they have attended at least 4 meetings in one AIChE-Chicago programming year (Sept-May).
3. Beginning or currently engaged in a course of study leading to a first degree in an ABET (or equivalent) accredited engineering program; and,
4. The recipient of no more than (3) AIChE Chicago Section scholarship awards prior to this year's application.

THE AWARD

1. Each award shall be in an amount of \$1,000 if they are in engineering or \$2000 for those who are in Chemical Engineering program for each academic year in which an award is made.
2. The maximum number of awards to be made in any AIChE Fiscal Year (FY) shall be set by the Board Of Director (BOD) not later than March 31 of each FY.
3. The Selection Committee shall advise the BOD of their recommendations and the BOD shall have the authority to approve all

or reduce the number of awards.

APPLICATION

1. Application for the scholarship must be made using the application form and in the manner prescribed by the Selection Committee.
2. Each application packet is required to include a personal statement requesting the scholarship award as well as academic and personal references.
3. Applications must be received by the AIChE Chicago Section not later than March 1st.

SELECTION

1. The AIChE Chicago Section Scholarship award is intended to be competitive.
2. Evaluation of applicants will be based on the information provided in and/or developed through the application materials.
3. Applicants will, following evaluation by the selection committee, be ranked according to committee preference for making any award(s).

NOTIFICATION

Notice of any award, or decline to award, will be sent by USPS first class mail and electronic mail to all applicants not later than May 1.

ADMINISTRATION

1. There shall be a Selection Committee of five members established and maintained for the purpose of evaluating applicants and determining awards to be made.
 - The AIChE Chicago Section Chair shall be a member, and shall appoint the Selection Committee, and preside over the Selection Committee meeting.
 - The Immediate Past-chair shall be a member, and serve as the Secretary of the Selection Committee.
 - The AIChE Chicago Section Board

Of Director (CSBOD) shall annually select, by majority vote, one section member to replace the longest serving member of the Selection Committee.

1. No member selected by the CSBOD shall serve more than 3 consecutive years, except to serve an unexpired term.

RULES

1. The AIChE Chicago Section Secretary will verify the eligibility of each applicant.
2. All scholarship awards, including renewals, will be made competitively, based on the information provided in the application.
3. In the event an award is declined, the Selection Committee may, at its option, make an award to the applicant having the next highest evaluation.
4. All AIChE Chicago Section scholarships must be used in the first academic year following the award.
5. The awards made shall be presented, on behalf of the recipient, to the ABET accredited engineering institution or, if attending an engineering school outside of the USA, an ABET-equivalent accredited institution at which the recipient is or will be matriculated.
6. If the studies or admission of the recipient of an AIChE Chicago Section Scholarship are delayed for any reason the Chair of the section must be notified within 30 days.
7. All recipients and alternates are subject to these same rules.
8. The AIChE Chicago Section Scholarship is to be independent of any and all other awards, scholarships, and/or grants-in-aid accruing to the benefit of the student.
9. If two or more candidates are found to be equally qualified for an award the final decision will be based upon financial need.
10. In making any award the committee shall

not discriminate against any individual on the basis of any legally protected status under the applicable laws of the United States of America.

NOMINATIONS REQUESTED FOR THE 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, 2014.

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

The
CHICAGO SECTION
of
AIChE

APPLICATION
for
SCHOLARSHIP

This application must be completed by both new and renewal applicants. This application, and all documentation requested herein, must be received at the address shown below, and on page 4, not later than the following date.

New applicants 1 March
Renewals 15 March

AIChE Chicago is now on Facebook and LinkedIn!

Like us on Facebook www.facebook.com/AIChEChicagoSection

Applicant Information

Name: _____

Address _____

Home Telephone: _____

Related AIChE member

Name: _____

Member No. _____

Relationship _____

Renewal? (circle one) NO YES

for AIChE use, only
FILE No.

for AIChE use, only

AIChE member

current _____

date _____

Academic History (use separate sheet if additional space is required)

List all high schools, vocational schools, colleges and universities attended, with years attendance, diplomas, and degrees, if any. Attach copies of transcripts from all high schools, vocational schools, and colleges or universities.

School & Location	From	To	Degree
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Extracurricular Activities - List all extracurricular activities in which you were involved during your academic years. Identify the associated institution(s), if any. Provide names and contact information of advisors, sponsors, coaches, etc., wherever possible. Use a separate sheet if additional space is required.

AIChE Chicago Section Scholarship Application

Qualifying Examinations - Mark all exams taken and request copies of test results be sent to the address below.

☐ ACT ☐ SAT ☐ GRE ☐ LSAT ☐ MCAT

Employment History - List all employment, beginning with the most recent. If you have been a student or otherwise employed less than full time during the past five years, include all part-time employment.

Employer/Location	Dates		Supervisor
	From	To	

Civic Activities - Identify all civic activities in which you have been involved during the past five years.

Civic Activity/Location	Dates		Organization
	From	To	

Section's Activities - Identify all section's activities in which you have been involved and/or attended during the last year.

AIChE Chicago Section Scholarship Application

References - Provide the names, addresses, and other contact information for three persons, none of whom is related to you, who may be contacted regarding your character. Include at least one teacher or professor. Ask one other individual to submit, directly to the address below, letters of recommendation on your behalf.

	Reference	How Known
1.	<hr/> <hr/> <hr/> <hr/>	<hr/>
2.	<hr/> <hr/> <hr/> <hr/>	<hr/>
3.	<hr/> <hr/> <hr/> <hr/>	<hr/>

Personal Statements - Prepare and submit two personal statements (essays) of not less than 250 and not more than 500 words each. One of these essays is to discuss the relationships among your personal activities, interests, and goals. The other is to present an advocate position for your receipt of the AIChE Chicago Section Scholarship.

Submissions - Submit this form, when completed, to:

AIChE Chicago Section Scholarship Committee

Chicago Section
13964 Doral Lane
Homer Glen, IL 60491
aichechicago@gmail.com



"Dr. Pete's one-man show is part stand-up, part statistics, part song, and all incredibly smart."

New Orleans, LA Defender, 2011

"I have never been so entertained by a power point presentation (or comedic performance for that matter)

Bill Hesse, MIT Ph.D. Student - after a 2012 performance on the MIT campus

Friday Sept. 13th, doors open at 7pm, show starts at 7:30pm
Auditorium, IIT Rice Campus, 201 East Loop Rd., Wheaton, IL

"Feel the Power of the Dork Side" is a hilarious and educational look at science & technology, and their practitioners - starring Dr. Pete Ludovice, the World's only engineering professor by day, stand-up comedian by night and host of Inside the Black Box on WREK-Atlanta.

See www.drpetecomedy.com/dorkside for tickets, information and tour schedule

Use discount code "Boltzmann" for 25% off advance tickets for Nerds and their friends in the Chicagoland area.

Upcoming Chicago Local Section Meetings

September 10, 2013 <i>CITGO Tour</i>	The Public Landing 200 W 8 th Street (158 th & Archer), Lockport, IL 60441
October 16, 2013 <i>Argonne Lab Tour</i>	Argonne Guest House
November 13, 2013	Costas, Oakbrook, IL
January 15,, 2014	Joint meeting with American Chemistry Society
February 19, 2014 <i>H2O Cosmetic Plant Tour</i>	Hay Market, Chicago, IL
March 10-11, 2014	<u>AIChE Midwest Regional Conference</u> , UIC—Chicago, IL
April 9, 2014	Student Poster session, IIT,
May 14, 2014 <i>MWRD Stickney waste water treatment plant Tour</i>	

AIChE October 2013 Meeting and Argonne Laboratory Tours

Special Notice for the October Meeting and Argonne Tour

Non-US Citizens attending this meeting must submit an on-line form to Argonne National Laboratories prior to October 4th, or they will not be able to enter the Argonne laboratories.

AIChE will take care of this for US citizens and everyone must register before October 4th!

Use this link to access the form: [Argonne Form](#)

Anthony Burrell

Head of Department

**CSE Electrochemical Energy Storage Department
Argonne National Laboratory**



The Next Generation Lithium Ion Chemistries

The current need for increased storage capacity, power and cost reduction in lithium ion technologies is driving developments in all aspects of the lithium ion cell. In this talk I will discuss some of the research underway at Argonne National Laboratory that is designed to significantly improve the next generation of lithium ion cells. From cathode materials such as the lithium manganese rich materials which show capacities approaching 300 mAh/g to silicon anodes that are required to improve energy density with high capacity cathodes and electrolytes that support high voltage cells all are materials chemistry issues that we are working on to enable the next generation of lithium ion batteries.

To Register please use the link,

<http://www.cvent.com/d/44q7lz/4W>

When:

Wednesday, October 16, 2013

Location:

Argonne Guest House, Argonne National Laboratories
9700 S. Cass Avenue - Building 460, Argonne, Illinois 60439

Agenda:

4:30-5:00 PM	Arrive at the Gate House and pick up your badge. Then drive to the Guest House .
5:00 PM	Tour A begins on Bus 1 at the Guest House
5:05 PM	Tour B begins on Bus 2 at the Guest House
5:15 PM	Tour C begins if necessary
5:30 PM	Tours A and B switch locations
6:00 PM	All tours end and buses return to Guest House
6:00 - 6:30	Networking at Guest House – Cash Bar
6:30 - 7:30	Dinner
7:30 - 7:45	Business meeting and announcements
7:45 - 8:45	Technical presentation by Anthony Burrell
8:45 - 9:00	Questions and Follow-Up

AICHE Workshop on Smart Grid for the Chemical Process Industry

September 25-26, 2013, Chicago, IL



Deadline for Early-bird [Registration](#) is August 30th

Registration is now open for the [AICHE Workshop on Smart Grid for the Chemical Process Industry](#). Organized by the CAST Division of AIChE, this workshop will introduce new and existing methods for the CPI to reduce operating costs through demand response. Speaker highlights include:

- **Keynote:** Joseph Paladino, *Senior Advisor, DOE Office of Electricity Delivery and Energy Reliability.*
- **Plenary I:** Mary Ann Piette, *Director, Demand Response Research Center, Lawrence Berkeley National Laboratory.*
- **Plenary II:** Ernst Scholtz, *Global Manager for Grid Automation, ABB Corporate Research.*
- **Plenary III:** R. DeWayne Todd, *Energy Service Manager, Alcoa Power Generating, Inc.*

[Full program](#) details can be found at the workshop website: <http://www.aiche.org/conferences/workshop-on-smart-grid-chemical-process-industry/2013>.

Collocated Preworkshop Activity: [Great Lakes Symposium on Smart Grid and the New Energy Economy](#), September 23-25, 2013, sponsored by the IEEE Power and Energy Society. Discounted joint-registration option is available, see the [Workshop Registration](#) site for details.

Questions and comments - please contact the Workshop Chair Donald J. Chmielewski (chmielewski@iit.edu)

**THANK YOU TO OUR
SEPTEMBER MEETING
STUDENT SPONSOR**

Knowledge is power.

At URS, we believe that the more involved you are with a process from beginning to end, the better equipped you are to provide solutions. Today, through our proven experience, we are helping clients across the Midwest meet the increasing demand for energy and chemicals. From feasibility studies, process and detailed design through construction for oil, gas, and chemical facilities, we help our customers succeed. Which is why more people are turning to us to get it done. We are URS.



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Douglas.chidley@urs.com

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AICHE CHICAGO SECTION

American Institute of Chemical Engineers

Chicago Section
13964 Doral Lane
Homer Glen, IL 60491
aichechicago@gmail.com

We are on the web
www.aiche-chicago.org

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

http://www.aiche-chicago.org/Section_Info/Volunteer

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 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
Advertisements (3X3)	100	450	150	675	N/A	N/A
Half-Page (~7"x 4.5")	280	1260	420	1890	N/A	N/A
Job Posting (Size?)	50	225	100	450	250	N/A
Special Sizing	Contact Publicity Committee aichechicago@gmail.com					

For the purchase of a year ad, customers have the option of changing ads/jobs month to month.

Student and AIChE Member Related Postings are Free.

