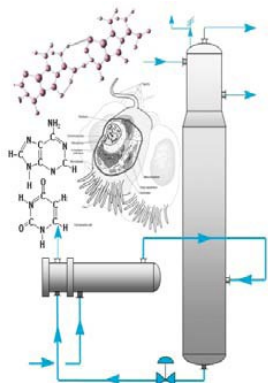


November Newsletter



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AIChE Chicago November 2013 Meeting

RAM Restaurant and Brewery Schaumburg, IL



Date: *Tuesday, November 12th, 2013*

Cost: **Members: \$35** **Non-Members: \$40**
Students: \$5 **Unemployed Members: \$20**

For Information and Registration:

<http://www.cvent.com/d/s4qmt1/>

Agenda

5:00 – 6:00	RAM Brewery Tours starting every 15 min.
5:30 - 6:30	Registration and social hour—Cash bar
6:30 - 7:30	Dinner
7:30 - 8:45	Technical presentation

Chair's Corner

A year ago, I took a high school student from Turkey to four universities in the Chicago area to help him select which university he wanted to attend, and on every campus new buildings were being constructed. It appeared obvious that our university system is growing. Going along with this expansion are efforts to increase alumni donations so you are probably receiving more calls from students soliciting donations. This growth in our universities is positive for our country because it will help us be more competitive in worldwide markets so I encourage you to make donations. However, as chemical engineers we can also contribute to the growth in our universities in other ways that are more valuable to the students. We can improve universities through direct participation in activities with chemical engineering students. I'm sure you receive invitations to university seminars and alumni events that are held throughout the year. Those events do sometimes bring us in contact with students, but how many of us actually go to those events? Work, conferences, and family obligations tend to fill our calendars so we might think we don't have time to participate in university events. I believe that our participation in university programs is one way that we can make significant contributions to universities and at the same time help our country so I encourage to participate in events that put you in direct contact with students.

For example, some universities ask us to participate directly by requesting that we give presentations to students about our jobs and about industrial chemical engineering problems. That kind of direct participation is probably one of the most important contributions that chemical engineers can make to our universities because it provides

an opportunity for the students to get an understanding of industrial technical problems and the industrial work environment. During this kind of presentation we can describe a problem we are dealing with at work, provide possible solutions, and then tell them what worked. Problems encountered can also be addressed. This kind of direct transfer of industrial knowledge and experience from chemical engineers in industry to the students is something that helps make the U.S. university experience better than that provided in many countries. It gives the students different views of the technology they're learning about while they're studying.



I'm currently scheduled to go back to my alma mater in November to give a presentation at one of their student AIChE meetings, and I'm trying to select topics that will give them some real industrial knowledge transfer. Of course, there is some work involved with this form of direct participation because it takes some time to pull an appropriate presentation together, and you have to make arrangements to be out of the office for part of a day. I encourage all of you to participate in this type of university knowledge transfer program – make the slides, make arrangements to be out of the office, and spend some time with the students. This type of direct participation in our universities is one of the best ways chemical engineers can help our universities develop future engineers. I believe that our participation in programs like this will, in the long term, help the U.S. remain competitive.

Jerry Wilks

Chair

November Meeting Information

Sage Kokjohn
Assistant Professor
Department of Mechanical Engineering
Engine Research Center
University of Wisconsin-Madison



Achieving High Efficiency Combustion by Controlling Fuel Reactivity

Improvements in the energy efficiency of internal combustion (IC) engines can result in huge fuel savings and meet stringent NO_x and soot emissions regulations. This presentation will explore opportunities to achieve high efficiency–low emissions combustion using advanced premixed compression ignition (PCI) combustion strategies; promising methods to achieve low engine out NO_x and soot emissions and high efficiency. A dual-fuel reactivity controlled compression ignition (RCCI) concept is proposed whereby two fuels with different auto-ignition characteristics are blended inside the combustion chamber. Combustion phasing and duration are controlled by the relative ratios of the fuels and their spatial stratification. This presentation shows the performance benefits of RCCI combustion and provides details of the mechanisms controlling RCCI combustion derived from optical engine experiments.

November Meeting Location:

RAM Restaurant & Brewery
1901 McConnor Parkway
Schaumburg, IL 60173
847-517-8791

AIChE Chicago is now on Facebook and LinkedIn!



Like us on Facebook
www.facebook.com/AIChEChicagoSection



[Join our group on LinkedIn!](#)

October Meeting Summary

The October meeting took place at Argonne National Laboratory. Attendees loaded two shuttles to take tours of the Advanced Powertrain Research Facility and the Electric Vehicle-Smart Grid Interoperability Center.

Attendees gathered for drinks and dinner at the Argonne Guest House after the tour.

After dinner, Pat Shannon presented AIChE Chicago member and former chair, Brian Gahan, with an AIChE Fellows plaque. Fellows are elite members of AIChE who have demonstrated long-term chemical engineering excellence.

Speaker Anthony Burrell, Head of Department for CSE Electrochemical Energy Storage Department, spoke on the background of lithium ion batteries and developments to improve lithium ion technologies.

Thank you to Argonne for hosting a wonderful tour and dinner!



Young Professionals News

Job Search Roundtable

When: Wednesday, Nov 20th, 6PM-8PM

Where: Morgan's on Maxwell Street, Chicago

RSVP: Alex, alxrduic@gmail.com, **Mon, Nov 18th**

YPC will be hosting a roundtable discussion about job searching in November. An informal discussion of various job search topics will be covered while YP's enjoy food and drinks. Food and drinks will be individually billed.

Please RSVP to Alex, alxrduic@gmail.com, by Mon, Nov 18th to attend!



Wine Tasting

The October YPC Wine Tasting Social was held at Devine Tasting in Wheaton, Illinois. Members tried seven different types of wine from the local Lynfred Winery. Social hour conversation included the national academic AIChE conference, life post-graduation, and safety in the workplace.

Chemistry Day

Young Professionals Abigail Jackson, Julie Gruhn, Todd MacMillan, and Ellen Kloppenborg represented AIChE for the Chemistry Day outreach event on Saturday, October 26 at Loyola University's Lake Shore campus. Chemistry Day is an annual event hosted by ACS's Chicago Section to celebrate National Chemistry Week. AIChE's exhibit explained what chemical engineers do and featured a fuel cell car demonstration.



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

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/>	<hr/> <hr/>
2.	<hr/> <hr/> <hr/> <hr/>	<hr/> <hr/>
3.	<hr/> <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

Upcoming AIChE Conferences and Webinars

November 3-8, 2013	2013 AIChE Annual Meeting San Francisco, CA
November 6, 2013	The Chemistry of Chocolate 2:00-3:00 EST
November 20, 2013	Understanding the AIChE Endorsed Long Term Care Insurance Program 2:00-3:00 EST
December 4, 2013	Water Reuse Challenges and Hydraulic Fracturing 2:00-3:00 EST
December 10-12, 2013	2013 AIChE Northeast Manufacturing Conference at the ChemShow New York, NY
December 18, 2013	Mixing for Success in Batch Systems 2:00-3:00 EST
March 10-11, 2014	6th Annual Midwest Regional Conference University of Illinois at Chicago
March 16-19, 2014	4th International Conference on Stem Cell Engineering Coronado, CA

Upcoming Chicago Local Section Meetings

November 12, 2013	RAM Restaurant & Brewery, Schaumburg, IL
January 15,, 2014	Joint meeting with American Chemistry Society
February 19, 2014	Hay Market, Chicago, IL H2O Cosmetic Plant Tour
March 10-11, 2014	AIChE Midwest Regional Conference , UIC—Chicago, IL
April 9, 2014	Student Poster session, IIT,
May 14, 2014	MWRD Stickney waste water treatment plant Tour



PROCESS ENGINEERS

URS Corporation is a fully integrated engineering, construction, environmental, and technical services organization with the capabilities to support the full project life cycle – from inception through start-up and operation to decommissioning and closure. We are a publicly-traded company with more than 56,000 employees in 50 countries. Currently we are looking to fill the following requirements in our Chicago Process Engineering group:

Job Description

- Provide detailed design of processes for refineries and chemical plants
- Use simulators to develop heat and mass balances
- Develop Piping & Instrumentation Diagrams and Process Flow Diagrams
- Perform hydraulic network calculations for line sizing starting with Process Flow Diagrams
- Perform relief valve calculations
- Interact with other disciplines, including equipment specialists and instrument engineers

Minimum Position Requirements

- Bachelor's degree in Chemical Engineering
- Experience in the design of facilities for refineries and chemical plants
- Knowledge of major processing equipment, including fired heaters, vessels, heat exchangers, pumps, and compressors
- Technical aptitude and ability to grasp a general knowledge of multiple disciplines and technologies
- All experience levels are desired; new and recent grads are also encouraged to apply
- US citizenship or permanent residency

To apply, please send resume and cover letter to:

Doug Chidley

Business Leader

URS Chicago Process Engineering

douglas.chidley@urs.com

All applicants must also register on www.bestworkofyourlife.com

Officers and Contact Information

Chair	Jerry Wilks jwilks@citgo.com
Chair Elect	Azita Ahmadzadeh Azita.ad@gmail.com
Chair Programming	Dan Rusinak rusinad@middough.com
Secretary	Katherine Sheehan katherinea.sheehan@gmail.com
Treasurer	Pat Shannon shannonph@middough.com
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	Jenn Guilfoyle Jennifer.guilfoyle@honeywell.com

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.

