

# October Newsletter



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## October 2011 Meeting Notice

### ***Integral Fast Reactor: A Next-Generation Reactor Concept***

**Yoon Il Chang**  
Former Associate Laboratory  
Director  
Argonne National Laboratory



**Date:** **Wednesday, October 12th, 2011**

**Location:** **Emmett's Brewing Co**  
5200 Main St, Downers Grove, IL 60515,  
Phone: (630)434.8500

**Cost:** **Members: \$35 Non-Members: \$40**  
**Students: \$5 Unemployed/Retired Members:\$15**

To Register Click the Link;

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

### Agenda

- 4:30 Brewery tour
- 6:00 Registration & Hospitality Hour
- 7:00 Dinner

## Chair's Corner

As the nation has emerged from the recent downturn, many locally have raised questions about why Illinois lags in job creation. Some point to taxation. But the state stands in the middle of the pack when it comes to combined state and local taxes, so that is clearly not the cause. The real answer is far more insidious, for it involves something that has been with us for a couple of centuries. Illinois, like many Midwestern states, has historically relied heavily on manufacturing. Ever since the dawn of the Industrial Revolution, automation has periodically eliminated some of those jobs. Perhaps the trend has been accelerated by computerization. In any case, these jobs need to be replaced.

How can Illinois generate new jobs? One way would be to attract companies from the growing tech sector. Silicon Valley and Boston have been able to do this in spite of being even more expensive than the Chicago area. They have Lawrence-Livermore and the Massachusetts Institute of Technology, which serve as anchors. Northern Illinois, however, also has many hotbeds of innovation. The Illinois Institute of Technology and the University of Chicago, along with Northwestern University, the University of Illinois-Chicago, Fermilab, and Argonne National Laboratory, carry out some cutting-edge research. So does the University of Illinois at Urbana-Champaign downstate. State and local leaders must collaborate with these institutions and use them as selling points to recruit new firms to the area. The Illinois Innovation Council, which mentors start-ups, is a good start, but more needs to be done. For one thing, the state needs to attract more venture capital.

I believe the Chicago Section could contribute here as well. We have many members in these various institutions. I would like to encourage them and those in similar organizations to contact their governmental leaders, detailing their capabilities. This region offers much in the way of expertise and facilities. Companies in energy, biotech, semiconductors, batteries, and other sectors would certainly benefit from what we have to offer. Leveraging these assets to attract them would be beneficial to the companies, our members, and the area in general.



By Steve Schade

### Volunteers Needed!

#### 2011 Chemistry Day on October 22

Please help us celebrate National Chemistry Week by presenting to people of all ages at the annual Chemistry Day. This year's Chemistry Day will take place at Columbia College Chicago,

623 S. Wabash Ave., on October 22, 2011 from 9:30 – 2pm. We will be presenting demos and teaching the community about Chemical Engineering. We need volunteers to help run the AIChE Chicago Section booth throughout the day.

If you are interested, please contact Meagan Lewis at [melewis25@gmail.com](mailto:melewis25@gmail.com) as soon as possible.

# October 2011 Meeting Information

## *Abstract*

### **Integral Fast Reactor: A Next-Generation Reactor Concept**

Today, 104 nuclear reactors in the U.S. contribute over 20% of electricity and 445 reactors are in operation and additional 108 reactors are under construction or planned worldwide. The Fukushima accident raised the reactor safety issue again, but the nuclear power will remain a reliable, economic, and safe source of electricity without greenhouse gases for coming decades. In the longer-term, the IFR will assure sustainability by extending the uranium resource utilization hundred-fold compared to today's commercial reactors. The IFR demonstrated an unprecedented level of inherent safety. A unique pyroprocessing enables proliferation-resistant, economic fuel cycle closure, which also reduces the effective lifetime of nuclear wastes from ~300,000 years to ~300 years. Most importantly, the application of pyroprocessing to the current commercial reactor spent fuel would resolve the vexing spent fuel management dilemma.

***To Register Click the Link;***

**<http://www.cvent.com/d/vcqmds/4W>**

## *Speaker's Bio*

### **Yoon Il Chang**

Dr. Chang has been associated with Argonne National Laboratory for the past 37 years. He has been a pioneer in advanced nuclear reactor design, and served as the General Manager of the Integral Fast Reactor (IFR) Program from 1984 to 1994, Associate Laboratory Director for Engineering Research from 1998 to 2002 and Argonne's Interim Laboratory Director from 1999 to 2000. Currently he is an Argonne Distinguished Fellow Emeritus and also a visiting professor at Korea Advanced Institute of Science and Technology.



In recognition of his leadership in all aspects of the IFR program, he was awarded the U.S. Department of Energy's E.O. Lawrence Award. He is a Fellow of American Nuclear Society and received Cisler Medal. He received outstanding alumni awards from the University of Michigan and Seoul National University.

He received his B.S. in Nuclear Engineering from Seoul National University, M.E. in Nuclear Engineering from Texas A&M University, Ph.D. in Nuclear Science from the University of Michigan, and M.B.A. from the University of Chicago.

## YPAB Announcement

### Northern Illinois Food Bank Volunteer Activity, Oct. 1, 2011

Chicago Young Professionals Nathan Schurr, Aaron Matthews, Janet Chu, Jon Haughton, Luisa Flechas and Jessica Swary volunteered at the brand new Northern Illinois Food Bank (NIFB) facility in Geneva, IL. The volunteers help to unpack and organize backpacks for the NIFB Backpack Program. This program provides these backpacks filled with 10 lbs. of nutritious foods to needy children every Friday at several Chicago area schools.



### Des Plaines Public Library Science Expo, Sept. 24, 2011

The American Institute of Chemical Engineers (AIChE) hosted a table at this year's Des Plaines Public Library Science Expo, an annual event designed to expose 2<sup>nd</sup>-8<sup>th</sup> graders to various sciences. Chicago Young Professionals Luisa Flechas, Matt Moy, Hussam Eltayeb, Nathan Schurr and Jessica Swary spoke to students about chemical engineering and the importance of Personal Protective Equipment (PPE) in their everyday jobs.



## YPAB Announcement

### Business Travel Round Table

Thursday, Oct. 20, 6:30pm

Fuego Loco Cantina and Salseria, 116 N. York, Elmhurst, IL

[www.fuegoloco.com](http://www.fuegoloco.com)

Working as a chemical engineer can often lead to travels all over the world. International travel presents its own unique problems. This round table will facilitate discussion amongst chemical engineers regarding the unique problems of travel including some basic advice for young engineers from more seasoned travelers. Please RSVP to [jessicaswary@msn.com](mailto:jessicaswary@msn.com) by Monday, Oct 17<sup>th</sup>.

### YP Programming at the MWRC, Nov 10-11, 2011

Did you know YPAB-Chicago has a track of sessions geared to young professional engineers? Session topics include Technical Writing, Résumé/Mock Interviews, Retirement Planning and a Networking Social. Visit [www.midwestregional.aiche.org](http://www.midwestregional.aiche.org) to learn more!

## AICHE National Upcoming Webinar Schedule

Webinar Topic	Presenter	Date and Time
<a href="#">Job Search Strategies</a>	<i>Dr. Ranil Wickramasinghe</i>	Wednesday, October 5, 2011 2:00 – 3:00 p.m. ET
<a href="#">Pay Attention to Mixing For Successful Process Development and Scale-up</a>	<i>Dr. Victor Atiemo-Obeng</i>	Wednesday, October 12, 2011 2:00 – 3:00 p.m. ET
<a href="#">Molecular Gastronomy: The Science of Flavor</a>	<i>Professor Peter Barham</i>	Wednesday, October 26, 2011 2:00 – 3:00 p.m. ET
<a href="#">Maintenance and Reliability for Chemical Engineers, Part Two—Asset Care Principles</a>	<i>David Rosenthal P.E.</i>	Wednesday, November 2, 2011 4:00 – 5:00 p.m. ET

## 2011 AIChE Annual—Short Courses

**Certificates of professional development hours will be presented at the conclusion of the courses which are open to all. Lunch is NOT included unless noted. All Short Courses are Sunday October 16 unless otherwise indicated.**

Meeting attendance is not required to attend short courses. [Click here](#) to register for the 2011 Annual Meeting and short courses. Please contact AIChE Customer Service at 800-242-4363 (1-203-702-7660 from outside the U.S.) to register for short courses only or to add a short course to your registration.

<b>S1:</b>	<b>How to Meet New ABET Requirements on Hazard Management - SACHE WORKSHOP</b> based on interactive modules developed by CCPS - \$100 - <i>Breakfast Included</i>	Breakfast: 7:30 Course: 8:00am-Noon
<b>S2:</b>	<b>Sustainability Overview, Assessment and Metrics for Process Engineers</b> - \$50 -	8:00am-5:00pm
<b>S3:</b>	<b>Crystallization Process Development: From Lab to Plant</b> - \$499 -	9:00am-5:00pm
<b>S4:</b>	<b>Women Assistant Professors in Chemical Engineering: Developing Your Career</b> - \$25 -	8:00am - 5:00pm
<b>S5:</b>	<b>Women Graduate Students in Chemical Engineering: Developing Your Career in Industry or Academia</b> - \$25 -	8:00am - 5:00pm
<b>S6:</b>	<b>Women Undergraduates in Chemical Engineering: Graduate School Panel</b> - \$5 -	8:00am - 2:00am
<b>S7:</b>	<b>Multiphysics Modeling in Chemical Reaction Engineering, Laptop Computer Required for this Course</b> - \$75 -	Wed. Oct. 19 1:00pm - 5:00pm
<b>S8:</b>	<b>Genome Technology in Industrial Cell Bioprocessing - Toward QbD in Cell Culture Biologics</b> 4 lectures coordinated by <a href="#">Wei-Shou Hu</a> , University of Minnesota - <i>Professionals: \$349, Students/Grad Students: \$149</i> -	12:30pm to 5:30pm
<b>S9:</b>	<b>Synthetic Biology for Bioengineering</b> 4 lectures coordinated by <a href="#">Wei-Shou Hu</a> , University of Minnesota - <i>Professionals: \$349, Students/Grad Students: \$149</i> -	12:30pm to 5:30pm
<b>S10:</b>	<b>Cellulosic Biomass Commercialization, Overcoming Obstacles in the Supply Chain for Fuels and Chemicals</b> - \$499 -	8:30am - 5:00pm

## AIChE National Announcements

### **Let us know What Professional Training You Want: Special Session at the AIChE Annual Meeting, Sunday, October 16.**

Members attending the AIChE Annual Meeting in Minneapolis are invited to a session on "AIChE's Future Role in Professional Training." Please come and tell AIChE what you and your company would like to see AIChE offer in the way of elearning courses, short courses, web asynchronous learning, webinars, or any others. The session meets on Sunday, October 16th at 4:00 PM in Conrad D, 2nd floor of the Minneapolis Hilton.

### **Wanted: Good Judges for Annual Student Conference Events**

The Annual Student Conference takes place October 14 to 17 in Minneapolis and we need judges to help with major student events. The Student Poster Competition and the ChemE Car Poster Competition need judges. Local members not attending the Meeting are also welcome to judge. For more information email [ascjudges@aiche.org](mailto:ascjudges@aiche.org).

### **Help the Environmental Division with a Service Project, Get a Free T-Shirt. Registration Required.**

Join fellow AIChE members at Mill Ruins Park Sunday, October 16, 2011 to hear a brief presentation from the City of Minneapolis' Office of Sustainability on sustainability initiatives across the city. Volunteers will then work on park restoration activities, which may include planting or invasive plant species removal, led by the National Park Service (NPS). The first 40 individuals to RSVP will get a FREE T-Shirt. To learn more and register for this event, please visit: <http://environmental.aiche.org/form/environmental-division-minneapolis-service-project>. Questions? Contact Alessandra Carreon at [alessandra.r.c@gmail.com](mailto:alessandra.r.c@gmail.com)

### **Mark Your Calendar, AIChE's Online Chemical Engineering Career Fair Meets October 4-5, 2011**

AIChE brings key industry employers together with qualified jobseekers for a career fair that fits your schedule and your budget. Position openings requiring a BS degree through experienced PhD openings will be recruited for. Employer and jobseeker details can be found at: [http://careerengineer.aiche.org/home/index.cfm?site\\_id=1932](http://careerengineer.aiche.org/home/index.cfm?site_id=1932).

## AIChE National Announcements

**AIChE 2012 Spring Meeting, April 1-6, 2012 in Houston, TX, Call for Papers Closes October 14, 2011.**

The AIChE Spring Meeting is the year's key technical conference for practicing chemical engineers. A wide range of subjects relevant to the current needs of industry will be covered. Planned topical conferences include Advanced Fossil Energy Utilization, Sustainability, and Distillation and more. Submit your abstract and get more details at <http://aiche.confex.com/aiche/s12/cfp.cgi>.

**Make Your Reservation for AIChE's International Year of Chemistry Gala, November 15, 2011.**

The U.N. General Assembly declared 2011 the "International Year of Chemistry" to promote a worldwide celebration of the achievements of chemistry. AIChE is honoring corporate executives whose leadership has been key to the success that chemical engineers have had in meeting society's needs in energy, healthcare, food, materials, and the environment. The Gala benefits AIChE's new energy and water initiatives, two issues at the heart of the International Year of Chemistry. For more information visit <http://www.aiche.org/iycgala.aspx>.

## Committee and Division Awards Deadlines Approaching

The deadlines for several Committee and Division Awards are approaching. You can access complete information by clicking the appropriate link in the table below:

Committee or Division	Award	Deadline
Computational Molecular Science & Engineering Forum (CoMSEF)	<a href="#">The Computational Molecular Science and Engineering Forum (CoMSEF) Graduate Student Award</a>	October 1, 2011
Fuels & Petrochemicals Division (F&P)	<a href="#">Fuels and Petrochemicals Distinguished Service Award</a>	November 1, 2011
Fuels & Petrochemicals Division (F&P)	<a href="#">Fuels and Petrochemicals Division Award</a>	November 1, 2011
Management Division (MGT)	<a href="#">Management Division Award</a>	November 15, 2011
Process Development Division (PDD)	<a href="#">Process Development Practice Award</a>	December 15, 2011



## Ernest W. Thiele Award Recipients

<u>YEAR</u>	<u>RECIPIENT</u>	<u>AFFILIATION</u>	<u>RECOGNITION &amp; ACHIEVEMENT</u>
1983	E.W. Thiele	Standard Oil	Catalysis, Distillation fundamental advances
1985	B.B.Broughton	UOP	Aromatics Separation Processes, adsorptive separa-
1986	T.J. Hanratty	Univ. Of Illi-	Advances in Fluid Mechanics
1987	G. Thodos	Northwestern	Physical Property Advances
1988	L.O. Stine	UOP	Petroleum/Petrochemical Processes
1989	D.T. Wasan	IIT	Research and Progress on Separation Processes
1990	R.S. Mah	Northwestern	Chemical Process System Analysis
1992	J.J. Carberry	Notre Dame	Chemical Reaction Engineering research, innova-
1993	R..J. Bertolacini	Amoco	Catalysis research innovations and leadership
1994	J.W. Westwater	Univ. Of Illi- nois	Research in Heat transfer and contributions in teaching
1995	Norman Li	UOP	Pioneering research in membranes and separa-
1996	Rathin Datta	Argonne	Original research in metabolic engineering and
1997	Hamid Arastoopour	IIT	Academic leadership and environmental engineer- ing
1998	Arvind Varma	Notre Dame	Fundamental advances in synthesis of materials,
1999	S. George Bankoff	Northwestern	Heat transfer advances in chemical and nuclear
2000	Henry Linden	IGT	Leadership of the Institute Of Gas Tech
2001	Paul Sechrist	UOP	Contributions to computational fluid Mechanics,
2002	Julio Ottino	Northwestern	Research in Chaos Theory and mixing of solids
2003	Ali Cinar	IIT	Contributions in process modeling, monitoring and control. As an educator championing computers and statistics.

## Ernest W. Thiele Award Recipients

<b>YEAR</b>	<b>RECIPIENT</b>	<b>AFFILIATION</b>	<b>RECOGNITION &amp; ACHIEVEMENT</b>
2004	Ted M. Knowlton	PSRI	Contributions to fundamental and applied research, and his leadership in the fields of fluidization and particulate solids.
2005	Dimitri Gidaspow	IIT	Fundamental contributions to computational fluid dynamics, multi-phase flow and fluidized bed systems and as an educator.
2007	Lynn H. Rice	UOP	Fundamental contributions to the petroleum refining isomerization process.
2008	Robert Lyczkowski	Argonne	Innovative application of multiphase theory and computational fluid dynamics.
2009	Harold Kung	Northwestern	Contributions to understanding catalytic phenomena, design of catalytic structures, and teaching.
2010	J. Peter Clark	Consultant	leading the development of numerous food products and new food preparation processes, and as a mentor and teacher.

### Congratulations to 2011 THIELE AWARD Winner

#### **DR. URMILA DIWEKAR**

Congratulations to **Dr. Urmila Diwekar**, President and Founder of the Vishwamitra Research Institute for being awarded the 2011 Ernest W. Thiele award!

This prestigious award will be presented to **Dr. Diwekar** at the November 10, 2011 meeting of the Chicago AIChE section at the University of Illinois Chicago meeting location following the AIChE Midwest Regional Conference..

Dr. Diwekar is recognized for leading the development of uncertainty analysis in processes. She is also an adjunct professor of biochemical and chemical engineering at the University of Illinois Chicago. She is also the founder of the Vishwamitra Research Institute.

The Ernest W. Thiele award is presented annually to a Midwest region member of AIChE who has made outstanding contributions to advance the practice of Chemical Engineering. The award is sponsored by BP, and consists of a plaque and a \$1000 honorarium.

Please join us in congratulating **Dr. Urmila Diwekar** on her achievement.

# 2011 AIChE Midwest Regional Conference

November 10 - 11, 2011  
University of Illinois at Chicago, Chicago, IL

## Motivation

According to the Wikipedia (as of 10:49 pm CT, 09/28/2011):

*Chemical engineering is the branch of engineering that deals with the application of physical science (e.g., chemistry and physics), and life sciences (e.g., biology, microbiology and biochemistry) with mathematics and economics, to the process of converting raw materials or chemicals into more useful or valuable forms. In addition to producing useful materials, modern chemical engineering is also concerned with pioneering valuable new materials and techniques – such as nanotechnology, fuel cells and biomedical engineering. Chemical engineers largely deal with the design, improvement and maintenance of processes involving chemical or biological transformations in large-scales. Chemical engineers ensure the processes are operated safely, sustainably and economically.*

What is not explicitly mentioned in this description of our profession is Energy and its critical role in the process. Article III of the AIChE constitution describes the profession as:

*Chemical engineering is the profession in which a knowledge of mathematics, chemistry, and other natural sciences gained by study, experience, and prac-*

*tice is applied with judgment to develop economic ways of using materials and energy for the benefit of mankind.*

It is not an overstatement to say that at this time of history energy is more vital than ever before. So far we have established two facts: 1– Wikipedia is a good source of information but it is in need of constant revision, 2– Energy is a major part of our profession. With that in mind, the 2011 AIChE Midwest Regional Conference organizing committee has chosen “Energy is Everything—Game Changers” as this year’s theme. As a matter of fact article II of the same constitution outlines the objective of the institution as:

*(1) to advance chemical engineering in theory and in practice, (2) to maintain a high professional standard among its members, (3) to serve society, particularly where chemical engineering can contribute to the public interest.*

These are exactly the main motivations of the organizing committee of this conference in the past as well as this year. It is a unique opportunity for high school students to understand the importance of this profession and provide them with a prospect of their future. It is a great chance for young professionals to meet more experienced engineers and extend their professional network. It provides the university professors and industrial folks to exchange ideas and create collaboration occasions.

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# 2011 AIChE Midwest Regional Conference

University of Illinois at Chicago (UIC) – Chicago, IL • November 10-11, 2011

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According to the map of the location of the quotient of chemical engineers, the Midwest region is very close to average number of employees. Last years' meetings attracted many people from the neighboring states and we expect to see more this year. The regional meetings are designed to provide a convenient way for the chemical engineers in the area to participate in a technical and informative meeting without the need to travel far.

The variety of chemical industries in the region makes it also a special experience for the conference attendees to interact with many fellow engineers who have different backgrounds and knowledge.

This regional conference provides an easily reachable, high-quality technical program in the Midwest region. With the continued cuts in the travel budgets, a local professional development program is an ideal solution for your professional development requirements. This is specially beneficial for the professional engineers who could earn up to 14 professional development hours (PDH). We have kept the **registration fees** low which in addition to the technical sessions and conference booklet, it also **includes breakfast, lunch and afternoon snacks**.

## Keynote and Plenary

Similar to the previous years, we expect more than two hundred chemical engineers and other professionals in the industry and

academia to gather at the University of Illinois campus in downtown Chicago for a two day conference to exchange ideas, develop their professional knowledge and network.

This year we have two distinguished individuals from local industries. On Thursday **Mr. Nick Spencer, Business Unit Leader of the BP Whiting Refinery and Modernization Project**, will speak about the rich history of this massive refinery in Whiting Indiana. He'll then focus on the reasons for the modernization project and what is actually being built to sustain the refinery for the future. Friday's keynote speaker is **Dr. Narasimha Rao, Nalco Division Vice President of R & D, Innovation Marketing**, will talk about Improving Energy Efficiency in Industrial Use: Why Water Matters.

Two plenary sessions are also scheduled on these days. One is devoted to energy success stories and one is related to Food in Chicago and Midwest.

## For Professionals

The main theme of the conference is "Energy is Everything" so the goal of the various sessions is to highlight how the various topics relate to Energy. The sessions are focused first on what is happening now with take-home examples as well as a look over the horizon at oncoming process energy developments.

The technical program will cover a collection of topics with highlights related to the theme of the conference, Energy. There are ses-

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**Friday Keynote - Improving Energy Efficiency in Industrial Use: Why Water Matters**

**Narasimha Rao, Nalco Division Vice President of R & D, Innovation Marketing**

**Friday, November 11, 2011: 8:15 AM**

**Tower - Rm 605 (University of Illinois at Chicago)**

**Summary:**

Water is the heat transfer medium of choice in industry, thanks to its plentiful availability and excellent thermal properties. Whether through process heating and cooling, or waste water treatment, water is associated with nearly 70% of the energy in an industrial plant. In the industrial world, the parameter of interest is water quality more than quantity. Water quality directly impacts corrosion, scaling and microbial activity which in turn impact energy efficiency, asset integrity, product quality and therefore, capital and operating expenses. Managing water effectively, is therefore of great importance in managing energy. Doing this involves a holistic approach involving understanding of the water and energy balance at the plant level, a fundamental understanding of process and how water chemistry impacts the process, and modeling tools to predict how the water and energy balance can be impacted through chemical, operational or mechanical means. While a lot of attention has been paid lately to energy efficiency in non-industrial sectors, there is a significant need and demand for innovations and investments to improve energy efficiency in the industrial space.

**NM Rao Bio:**

Dr. NM Rao joined Nalco in 1990 after finishing his PhD in chemistry from University of Illinois at Urbana-Champaign. He has a BS in Chemical Engineering from Madras University, India and a MS in Chemical Engineering from Southern Illinois University at Carbondale. He has been involved in innovation related to Water and Energy Optimization throughout his career and has led the development and commercialization of several industry leading offerings including the TRASAR 3000, 3D TRASAR®, and Nalco 360™ Service. Over the years, he has held various R & D and Innovation related positions, including a stint in Asia Pacific and currently serves a multi-faceted role as Division Vice President of R & D, Innovation Marketing, and Automation. His inventions have resulted in 7 patents and he has been widely recognized including the R&D 100 award, the 2008 Presidential Green Chemistry Award, and the 2010 Global Water Award.



# 2011 AIChE Midwest Regional Conference

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sions devoted to refining, natural gas, food in Chicago, water safety, bio-technology and energy success stories. Some examples are:

- A series of sessions highlighting ongoing research development efforts occurring at the universities in the Midwest Area. We expect participation from several universities Midwest area. This provides an opportunity for university researchers to present their work to industry participants at the conference, draw their interest in further commercialization, and get input as to industry and societal needs and techno-economic viability. For the industry participant, it is an opportunity to identify promising new leads, as well as steer the academic research to address societal and industry needs.

- Back to basics sessions: These two sessions will focus on tools, tips and techniques for folks in plant operations as well as professional engineers looking to review or upgrade their skills. The focus is on energy of course! Various topics covered include: Pumps - Evaporators - Chillers - Heat Exchangers - Steam Traps - Heat Tracing.

- The “refining energy updates” session will look into energy utilization in today's modern refinery - Feed Upgrades - Environmental - Catalysis - Upstream Issues.

More information can be found at the conference website:

<http://midwestregional.aiche.org/>

## Young Professionals (YP)

What does the AIChE YP try to achieve?

AIChE Young Professionals groups help their engineering peers to integrate into new communities -- professional, educational and social -- offering support and camaraderie to young AIChE members through a range of AIChE sponsored activities.

Comprised of recent chemical engineering graduates, Young Professionals groups are organized through AIChE's Local Sections, but also work on the national and regional levels to satisfy the varied professional and career development needs of young, up-and-coming chemical engineers, wherever they find themselves.

Organized by AIChE's national-level Young Professionals Advisory Board, local Young Professionals groups are committed to building a network that supports transition—before and after graduation. These dynamic, proactive communities help young professionals to find a niche, make important career choices, and develop bonds of friendship and collaboration that can last throughout their careers. For Engineers / University Students 35 and younger, we are pleased to offer several ses-

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## Thursday Keynote - **BP Whiting Refinery and Modernization Project** **Nick Spencer, BP Whiting Refinery Business Unit Leader**

Thursday, November 10, 2011: 8:15 AM

Tower - Rm 605 (University of Illinois at Chicago)



AIChE Midwest Regional Conference  
UIC- Chicago, IL  
November 10-11, 2011

### Summary:

Nick Spencer, Business Unit Leader of the BP Whiting Refinery and Modernization Project, will speak about the rich history of this massive refinery in Whiting Indiana. He'll then focus on the reasons for the modernization project and what is actually being built to sustain the refinery for the future.

### Nick's Bio:

Nick Spencer serves as the Whiting Refinery Business Unit Leader since October 2009 coming to BP from ConocoPhillips.

Previous to this, Nick held the position of General Manager Middle East and North Africa Refinery Marketing and Transportation.

In 1980, he joined the Humber refinery in England and worked in process engineering and projects before taking on a series of supervisor roles at the refinery.

In 1995, he transferred to Conoco headquarters in Houston to lead the operations optimization team for the company's refining and marketing activities in Gulf Coast region. He moved to Lake Charles, LA the following year to serve as operations manager at Conoco's refinery in Westlake. After a term at Harvard business School, he moved to Ponca City refinery, Oklahoma, in 1999 as refinery manager.

In 2002, he transferred back to the UK as general manager of the Humber refinery. Following this assignment, he relocated to London as general manager of European Refining and in September 2006 he moved to Abu Dhabi to lead two new Refinery development projects, one in Saudi Arabia and one in Fujairah.

A native of England, Nick earned a first-class honors degree in chemical engineering at the University of Manchester Institute of Science and Technology. He also successfully completed the General Manager Program at Harvard Graduate School of Business Administration.

Nick and his wife, Angela, reside in Chicago, IL.





## 2011 Midwest Regional Conference: At-A-Glance

THURSDAY November 10		FRIDAY November 11	
AM	PM	AM	PM
<p>0 Keynote - Thursday - BP Whiting Refinery and Modernization Project, Nick Spencer, Business Unit Leader 8:15 AM-9:30 AM</p> <p>0 Thursday Plenary - ENERGY SUCCESS STORIES 9:30 AM-11:00 AM</p>	<p>0 Resume Workshop and Mock Interviews 1:00 PM-1:45 PM</p> <p>0 Back to Basics - I 1:00 PM-2:30 PM</p> <p>0 Refining Energy Updates 1:00 PM-2:30 PM</p> <p>0 University Process Research - I 1:00 PM-2:30 PM</p> <p>0 Management 1:45 PM-2:30 PM</p> <p>0 Back to Basics - II 3:00 PM-4:30 PM</p> <p>0 Financial/Money Management 3:00 PM-4:30 PM</p> <p>0 Natural Gas 3:00 PM-4:30 PM</p> <p>0 University Process Research - II 3:00 PM-4:30 PM</p> <p>0 University Energy Related Posters 5:00 PM-6:00 PM</p>	<p>0 Keynote - Friday - Water and Energy - Two Great Issues 8:15 AM-9:30 AM</p> <p>0 Friday Plenary Food in Chicago and Midwest 9:30 AM-11:00 AM</p>	<p>0 Panel Discussion - Post Degrees 1:00 PM-1:45 PM</p> <p>0 Specialty Topics - HOW TO 1:00 PM-2:30 PM</p> <p>0 University Research - III 1:00 PM-2:30 PM</p> <p>0 Water - Energy Issues 1:00 PM-2:30 PM</p> <p>0 Controls/Mathematical Modeling 1:45 PM-2:30 PM</p> <p>0 Bio- Tech 3:00 PM-4:30 PM</p> <p>0 SAFETY 3:00 PM-4:30 PM</p> <p>0 Technical Writing 3:00 PM-4:30 PM</p> <p>0 University Research - IV 3:00 PM-4:30 PM</p>

<http://aiche.confex.com/aiche/mrc11/webprogram/ataglance.html>

## 2011 AIChE Midwest Regional Conference

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sion created by AIChE Chicago Young Professional Advisory Board (YPAB). These sessions not only include all the popular topics from last year but also have new and very exciting subjects added this year. YPs are highly encouraged to take advantage of this opportunity to talk to their peers who have recently started a career and there to help you with yours. Topics include the following:

- Resume / Interview
- Management
- Financial / Money Management
- Controls / Mathematical Modeling
- Technical Writing

With increased competition in today's job search market, you have to be sure your résumé stands out in the crowd. Work one-on-one with a local Young Professional and learn strategies to fine tune your résumé in the "Resume / Interview" session.



Young Professional chemical engineers at Speed Networking Event in Chicago

Successful engineers spend about 25% of their work time writing. Although professional engineers have found writing to be their most useful subject in college, job recruiters have suggested that engineers generally need more practice on their writing skills. The "Technical Writing" session will provide a review of the methodologies and practice behind strong technical writing. Topics will include writing, drafting, revising and finishing as well as the elements of style; structure, language, and illustration. Suggestions will also be provided on writing tasks such as laboratory reports, internal communications and journal articles.

After the program YP event has been planned for Friday by the Chicago YP Committee as well.

### Poster Session and AIChE Chicago Section Monthly Meeting

The poster session will be held on November 10th from 4 to 7 pm. To submit a poster click here and for more information please email Professor Justin Notestein:

[j-notestein@northwestern.edu](mailto:j-notestein@northwestern.edu)

Or submit your poster directly to:

<http://aiche.confex.com/aiche/mrc11/cfp.cgi>

AIChE Chicago section monthly meeting will also take place on the first night of the conference. As part of the meeting the Thiele award

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# 2011 AIChE Midwest Regional Conference

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will be presented to this year's winner of the prestigious award.



Prof. Al Sacco

## High School Program

As part of the high school program, the professional attendees will get a chance to sit with the high school students at lunch and talk to future generation of engineers. The high school program is designed to outreach to the students and help them understand what a chemical engineer does in real life. Our very popular speaker is former NASA astronaut - payload specialist and Dean of the College of Engineering at Texas Tech University, Prof. Al Sacco who has generously accepted our invitation this year as well to talk to the students.

## A Great Location

UIC campus is located very close to the Chicago downtown area with offers many easily accessible attractions. If driving to the meeting, you can park in the UIC parking lot. Public transportation is a great alternative as well.

**SEE YOU THERE.**

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### References:

- <http://midwestregional.aiche.org/>
- [http://en.wikipedia.org/wiki/Chemical\\_engineering](http://en.wikipedia.org/wiki/Chemical_engineering)
- <http://www.aiche.org/About/WhoWeAre/Governance/Constitution.aspx>
- <http://www.bls.gov/oes/current/oes172041.htm>
- <http://www.aiche.org/YoungProfessionals/index.aspx>
- <http://www.aiche-chicago.org/YPAB/>
- <http://www.chicagotraveler.com/attractions.htm>

## Upcoming Meetings

- October 4-6, 2011**      OTC Brasil 2011  
Riocentro  
Rio de Janeiro, Brazil
- October 6-7, 2011**      2011 AIChE Regional Process Technology Conference  
Moody Gardens Hotel  
Galveston, TX
- October 12, 2011**      AIChE Chicago Section Monthly Meeting
- October 16-21, 2011**      2011 AIChE Annual Meeting,  
Minneapolis Convention Center  
Minneapolis, MN
- November 10-11, 2011**      AIChE Midwest Regional Conference  
UIC—Chicago, IL

## Congratulations

### IIT AIChE Student Chapter

IIT AIChE Student Chapter selected as an Outstanding AIChE Chapter for the 2010—2011 school year by AIChE National.

This award is in recognition of the membership and participation of the students and faculty, the quality and quantity of their meetings and activities, and the chapter's involvement in the local, regional and national events. This award will be delivered at the Annual Meeting.

IIT AIChE Student Chapter:

**Advisor:** Dr. Donald J. Chmielewski

**President:** Carol Mak

**Vice President:** Tracy Martinez

**Treasurer:** Tobiah Isbell

**Secretary:** Sara Glade

**Webmaster:** Ton Trieu

**Internal Liaison:** Liam O'Rourke

**Outreach Coordinator:** Ariana Mayorga

**High School Outreach/Freshman Mentor Program Coordinator:** Say Yeong (John) Siah

**Evening With Industry (EWI) and Alumni Dinner (AD) Chair:** Jonathan Taketa

**Congratulations**

Officers and Contact Information

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Chair Elect	Peter Herena <a href="mailto:peter.herena@kenexis.com">peter.herena@kenexis.com</a>
Chair Programming	Dan Rusinak <a href="mailto:Rusinad@middough.com">Rusinad@middough.com</a>
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## AICHE CHICAGO SECTION

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We are on the web  
[www.aiche-chicago.org](http://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](mailto:aichechicago@gmail.com)

[http://www.aiche-chicago.org/Section\\_Info/Volunteer.html](http://www.aiche-chicago.org/Section_Info/Volunteer.html)

## Submitting Articles to AIChE Newsletter

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.

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