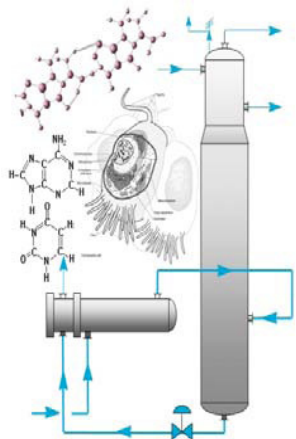


April Newsletter



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AIChE Chicago

April 2010 Meeting Notice

Career Development in Industry: Some Lessons from a Food Engineer

Dr. J. Peter Clark

Date: *Wednesday, April 14th, 2010*

Location: **UIC Campus**

UIC Campus - Student Center East
East Terrace Room - 2nd Floor, North Half
750 S. Halsted St. Chicago, IL 60607

Cost: **Members: \$18** **Non-Members: \$20**
 Students: \$5 **Unemployed Members: \$10**

To Register **CLICK** the Link

<http://quest.cvent.com/i.aspx?1Q%2cM3%2cc4730607-a1a2-4de5-a8af-4ba80fbc80c>

Agenda

5:00 PM	Poster Setup
5:30 PM	Registration & Social Hour
	Buffet Dinner & Poster Viewing
7:30 PM	General Meeting & Awards Presentations

Chair's Corner

As the year is nearing its end for our local section, we need to look back and summarize what we have done during the past year. I will do that in our last official newsletter of this fiscal year which is the May issue. You will probably receive some more issues during the summer to provide you with updates about the "Midwest Regional Conference" which will be held on September 30th – October 1st at Illinois Institute of Technology.

All the local sections are also required to submit an annual report to the AIChE national where it is compiled and posted on the website for review. A summary of the last year's report indicates that many of the local sections are facing some struggles. The most important indication to the local sections is the slippage in meeting attendance during the last few years. The best turnout has always been a combined meeting with another local society or the student chapter. Another important issue is the lack of new volunteers to lead the section. Almost all of the sections are trying to revitalize their leadership with recent graduates and young engineers. The Young Professional (YPAB) group is found to be a great way to bring the new engineers on board to help with the growth of the local sections. The third most important concern of the local sections is to establish and maintain a closer relationship with the local companies and express the values of AIChE to the companies' management. The same is true for the local universities and schools.

The report also shows that the most successful meetings were "General Technology" followed by "Plant Tours" and "Social Meetings". The number one and two most valued benefits that are mentioned in the summary are "Networking" and "Local Section Meetings".

It is very interesting to also note that the best ways to "Recruit New Members or Volunteers" is the "**Word(k) of Mouth**" and "Relationship with Student Chapter". This is not a surprise. There are many references to the power of this advertising tool and you probably can see it at work everyday. Recommend a good book or movie to your friend and there is a good chance that he/she will read the book or watch the movie. The AIChE national is putting a lot of effort to improve the local sections as a way to empower the American Institute of Chemical Engineers as a whole body. It all starts with many members who are spread across the country or even around the world to start advertising for ourselves. And here is an economical reason to just do that: The Wall Street Journal recently reported that the engineering graduates earn the most (Joe Walker, WSJ on-line, March 10, 2010) and chemical engineers are at the second place in the list. So next time you are at lunch with your colleagues, please mention: "Hey you know, there is great talk on April 14th at UIC and we will have a good opportunity to see what the local universities are working on recently by browsing the students' posters". I hope to see you there.



Here is a link on the power of "Word of Mouth":

<http://www.smalltownmarketing.com/wordofmouth.html>

Reza Mostofi

UOP

Election Of Section Officers ABSENTEE BALLOTS

Election of officers will be held at the annual meeting on **May 11**. If you expect to be absent from this meeting, you may vote by absentee ballot. Please contact our secretary at aichechicago@gmail.com to obtain one.

April 2010 Meeting Information

Abstract:

The food industry is one of the largest segments of the economy and presents good opportunities for chemical engineers. A successful career as a chemical engineer in the food industry may require more self-reliance and flexibility than are needed in those segments where more chemical engineers are engaged, because the food industry typically provides less training and supervision to new employees than do some other industries.

Food engineers use chemical engineering tools to develop new food processes, new food products and new food processing equipment. Food engineers also design, build and operate food plants. Employers may be consumer food products manufacturers, ingredient manufacturers or consultants that service such firms. Examples in the Chicago area include Kraft, Sara Lee, Wrigley, Corn Products, ADM, Tate & Lyle, Middough, Ambitech and Epstein.

Ultimately, each chemical engineer is responsible for his or her own career development and progress. The keys are to keep learning, be adaptable, live a full life, and give back to the profession and community.

Speaker's Bio

Peter Clark is a consulting process engineer in Oak Park, IL and Contributing Editor of Food Technology magazine, with a monthly column



on processing since 2002. Previously, he was Vice President, Technology with Fluor Daniel (a major engineering firm); Senior Vice President, Process Technology of A. Epstein and Sons International (a large architecture and engineering firm with a food practice) and President of Epstein Process Engineering (a subsidiary); Director of Research for ITT Continental Baking Company; Assistant, then Associate Professor of Chemical Engineering at Virginia Tech; and he began his career as a Research Engineer with the U. S. Agricultural Research Service.

He earned his B.S.Ch.E from Notre Dame and his Ph. D. From the University of California – Berkeley. He has published over forty papers and seven books in addition to his columns. He is a registered professional engineer in Illinois and Virginia, is a Fellow of AIChE, and past chair of IFT Food Engineering Division and the New Products and Technologies Committee and of AIChE Food, Pharmaceutical and Bioengineering Division, from which he received the Division Award in 1998.

To Register Click the link:

<http://quest.cvent.com/i.aspx?1Q%2cM3%2cc4730607-a1a2-4de5-a8af-4ba80fbca80c>

Historical Engineering Events in April

April 25, 1925 – Florence Rena Sabin is the first woman elected to National Academy of Science.

April 14, 1932 – First atom is split by a proton beam on a lithium target.

April 6, 1938 – Teflon® is discovered.

April 19, 1957 – Release of FORTRAN programming language.

April 25, 1961 – Robert Noyce and Fairchild awarded patent for the integrated circuit.

April 16, 1977 – Apple II personal computer released, featuring a central processing unit (CPU), keyboard, floppy disk drive, and a \$1,300 price tag.

April 26, 1986 – The Chernobyl nuclear plant exploded in the Ukraine and parts of Belarus, Russia; it was the world's worst civil nuclear catastrophe.

April 29, 1998 – Ten percent of the Amazon rain forest is preserved. On this day, Brazil agreed to set aside about 25 million ha (62 million ac) of the Amazon rain forest for conservation in cooperation with the World Bank and the World Wildlife Fund.

April 30, 2008 – Toyota Prius worldwide sales top 1 million mark.

Selected from:

www.engineeringpathway.com/ep/

Gathered by: Darlene Hug

AIChE National's Live Webinar in April

Flame Flashbacks: Causes and Prevention

Presented by Dan Banks, P.E.

Wednesday, April 7, 2010

This webinar addresses the principle of flammability of vapor/air mixtures, including flammability limits, ignition temperatures, the effect of inert and how to determine the flammability of any particular mixture. It also covers ignition sources and the common methods of avoiding flashbacks, including mixture dilution/enrichment, velocity flame arrestors (and how to apply them), mechanical arrestors, liquid seal arrestors, quick close valves and chemical injection systems. A list of references is provided for further study.

AIChE's Leadership Webinars: Visions of the Future from Industry Leaders (Session One)

Presented by Henry T. Kohlbrand

Wednesday, April 14, 2010

Our capacity to understand the key trends that will shape the future of chemical engineering will determine how we need to prepare ourselves personally and professionally. Input from industry leaders on their views of the many factors and drivers for future change can give us valuable insights as to training, education, and career development opportunities that allow us to meet the future head-on. Business trends such as globalization, sustainability, and changing business models combined with key mega trends such as energy, water, infrastructure, transportation, and health/nutrition will greatly impact the roles of chemical engineers. In this session of the webinar series, Hank Kohlbrand discusses how these trends will impact us, as well as looking at the role that science and technology will play in these changes. He will also address future skills needed for success, the needs of large employers in the future, and how we, as chemical engineers, can use our abilities to benefit the world.

Gasification: Opportunities and Challenges

Presented by Dr. Shuncheng Ji

Wednesday, April 21, 2010

Gasification of solid feedstocks, such as coal and petroleum coke, is an efficient process to produce synthesis gas for use in combustion turbines and as a feedstock for chemical and fertilizer plants. Syngas can also be used to produce hydrogen and substitute natural gas (SNG, equivalent to pipeline quality natural gas).

This webinar gives an overview of global and domestic (U.S.) applications and current markets for gasification technologies. It describes important barriers for U.S. gasification projects and strategies to address the key barriers. It also highlights ConocoPhillips' planned projects in Kentucky and Texas. The webinar discusses the Kentucky NewGas project, a joint venture with Peabody Coal, that will produce SNG from a blend of bituminous coal and petcoke. It also covers a project being evaluated for ConocoPhillips' Sweeny refinery that will produce hydrogen, steam, power, and SNG from petcoke. Both of these projects are evaluating designs for carbon capture to reduce CO₂ emissions.

Right from the Start: Mistakes to Avoid While Planning Capital Projects

Presented by Adnan Siddiqui

Wednesday, April 28, 2010

Proper planning of capital projects is critical to final outcome. To achieve a project's goals with respect to cost, schedule, quality, and operation, project teams must deliver a high quality conceptual design and project plan.

This webinar starts with an overview of current best practices and tools for project planning. After sharing the latest knowledge and research from leading project management entities, the webinar lists common mistakes and traps to avoid during project planning to ensure your project's success. This webinar should be attended by project managers, process engineers, design engineers, and others involved in developing and planning capital projects.

Gathered by: Darlene Hug

YPAB Activity

PRESSURE RELIEF VALVE FUNDAMENTALS

Date: Thursday, April 22nd, 2010

Time: 6:30-8:30pm

Location: Avenue Ale House, 825 S. Oak Park Ave, Oak Park, IL

As chemical engineers, ensuring the safety of our process design and operation is our number one priority. Pressure relief valves are probably the most common emergency safety element that spans all industries. Most chemical engineers will be required to size a pressure relief valve at some point in their career. Janet Chu and Chris Vitale of Mid-dough in Oak Brook, will lead an overview of governing ASME codes and typical scenarios evaluated to determine required relief for a system. A synopsis of PRV design and operation will be given along with a brief discussion of other types of pressure protection hardware (conservation vents, rupture discs, etc).

RSVP to jessicaswary@msn.com by **April 19**. For directions, menu and specials visit www.avenuealehouse.com. Food and drinks will be individually billed.

Stay up to date on YPAB activities by visiting the website www.aiche-chicago.org/ypab.

Need a Volunteer @ Registration Desk

If you are planning to attend next monthly meeting please consider helping us at the registration desk. For more information, please send an email to aichechicago@gmail.com

NAE Grand Challenges for the 21st Century: Chicago Summit 2010

April 21-22, 2010



face the
challenge

We invite representatives from the engineering, government, non-profit and business fields, as well as local high school and college students, to join thought leaders and expert panelists in addressing four of the National Academy of Engineering (NAE) Grand Challenges at the Chicago Summit on April 21-22, 2010.

The NAE Grand Challenges are a grouping of critical problems that must be addressed and solved in order to maintain the United States' national security, quality of life and sustainable future. They are a call to action and will engage the public to understand the importance of technology, policy, and science to preserve and enhance our standard of living. The Chicago Summit is one of five Grand Challenge summits taking place across the U.S. in 2010.

ADDITIONAL KEYNOTE ADDRESSES PROVIDED BY:

Ray LaHood	U.S. SECRETARY OF TRANSPORTATION
John W. Rowe	CHAIRMAN AND CHIEF EXECUTIVE OFFICER, EXELON CORPORATION
Charles Vest	PRESIDENT, NATIONAL ACADEMY OF ENGINEERING

FOR MORE INFORMATION AND TO REGISTER, VISIT:

www.iit.edu/grand_challenges

Clean Water

KEYNOTE SPEAKER

*Lord Ernest Ronald Oxburgh,
member, House of Lords,
and member, Parliamentary Office
of Science and Technology*



Carbon, Energy and Climate

KEYNOTE SPEAKER

*Dr. John P. Holdren,
assistant to the President for Science
and Technology, and director,
Office of Science and Technology Policy*



Urban Sustainability

KEYNOTE SPEAKER

*Roger E. Frechette III, president,
PositivEnergy Practice*



Global Health

KEYNOTE SPEAKER

*Dr. Tachi Yamada, president,
Global Health Program,
Bill & Melinda Gates Foundation*



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SUMMIT PARTNERS

Universities Seminars in April

Illinois Institute of Technology (IIT)

All seminars listed below are held from **3:15 - 4:30** pm in Perlstein Hall Auditorium on the designated days

April 7

Mohan Sankaran, Case Western Reserve University

April 14

Paul McKenzie, Centocor R&D

April 21

Michael Hickner - Pennsylvania State University

April 28

Stefan Zauscher, Duke University

Friday, April 30

2010 Peck Lecture

From Rheology to Biology: The Application of Polymer Hydrodynamics to Problems in Biology

Ronald G. Larson, University of Michigan

http://www.iit.edu/engineering/chbe/news_events/peck2010.shtml

Career Resources

As a service to our members, we are posting jobs that are sent to us by recruiters or companies. You can access this list at:

http://www.aiche-chicago.org/Job_Postings.html

AICHE national also has a very useful guide for career opportunities that you can access as a member.

<http://www.aiche.org/CareerResources/>

UIC

Tuesday, April 13, 2010

Catalyst Design Using Pseudomorphic Overlayers

Joseph H. Holles, Michigan Technological University

11:00 - 12:00 PM, CEB 218 (810 South Clinton Street)

Tuesday, April 20, 2010

Relationship between Structural and Transport Properties in Organized Soft Matter Systems by NMR

Sergey Vasenkov, University of Florida, Gainesville

2:00 - 3:00 PM, CEB 218 (810 South Clinton Street)

2010 IIT ChBE Alumni Day April 30, 2010

The Department of Chemical and Biological Engineering at the Illinois Institute of Technology is pleased to invite AIChE Chicago Section members to attend the 2010 ChBE Alumni Day, hosted on Friday, April 30 on IIT's main campus. The event begins at 2:00 pm with a student poster competition highlighting the current research projects being conducted by ChBE undergraduate and graduate students. The annual Peck Lecture, featuring University of Michigan **Professor Ronald G. Larson**, will commence at 4:00 pm. His presentation, titled, "***From Rheology to Biology: The Application of Polymer Hydrodynamics to Problems in Biology***," will describe the development of computational and experimental methods for analyzing polymer dynamics in microflows.

The event will conclude with a dinner for ChBE alumni and students. Additional information about the event is available at www.chbe.iit.edu.

Save the Date!

AIChE²⁰¹⁰



Midwest Regional Conference
September 30 - October 1 | Chicago, Illinois



Make plans to join chemical engineers from Chicagoland and beyond for two exceptional days of education and networking.

- Hear presentations on new technology
- Learn about Energy Generation
- Introduce High School Students to Chemical Engineering
- Learn about Pharmaceuticals
- Meet with University Students
- Exchange Ideas
- Make new friends

Visit www.aiche-chicago.org for more information.

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OF TECHNOLOGY



STEM career expo

AIChE Chicago is volunteering at a Science, Technology, Engineering and Mathematics Career Expo for High School Students. Students and parents from the Kane and DuPage County area will come to Fermi National Laboratory to learn about careers in science, mathematics, engineering and technology. The STEM committee expects attendance to be between 300-600 students.

April 7, 2010, 5:30 PM – 8:30 PM
Fermi National Accelerator Laboratory
Wilson Hall, Batavia, IL

Judges Needed for Student Poster Competition

Judges are needed for the student poster competition that will be held at the **April 14** local section meeting. Posters will be judged on quality and organization, the student's delivery and ability to answer questions, and the importance/relevance of the project. Please contact Ellen.Kloppenborg@UOP.com if you would be willing to assist.

Upcoming Meetings

- April 14, 2010** Student Night @ UIC
- May 2 –5, 2010** SBE's Second International Conference on Stem Cell Engineering,
Boston, MA
- May 11, 2010** Project Design for risk Management
- June 4-6, 2010** Leadership Development Conference ,
Kingsport, TN
- June 27-30, 2010** AIChE's 2010 Process Development Symposium: Energy Challenges
for Process Development The Lodge of Four Seasons
Lake Ozark, MO
- August 1-4, 2010** The 5th International Conference on Bioengineering and Nanotech-
nology Co-sponsored by Society for Biological Engineering (SBE)
Biopolis, Singapore
- September 12-16, 2010** 55th Annual Safety in Ammonia Plants and Related Facilities Sym-
posium Hyatt Regency
San Francisco, CA
- September 30 - October
1, 2010** 2010 AIChE Midwest Regional Conference Illinois Institute of Tech-
nology
Chicago, IL
- October 7-8, 2010** 2010 AIChE Regional Process Technology Conference Moody Gar-
dens Hotel
Galveston, TX
- October 11-13, 2010** AIChE-DECHEMA Global Conference on Energy Efficiency in Process
Development
Hong Kong SAR, China
- November 7–12, 2010** 2010 AIChE Annual Meeting,
Salt Lake City, Utah

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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.html

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.

