AIChE Chicago Section

April Newsletter

Chicago Section

www.aiche-chicago.org

April 2009



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AIChE Chicago April 2009 Meeting Notice

STRUCTURAL HEALTH MONITORING DOCTOR'S ORDERS

Jan D. Achenbach

Date:	Wednesday	, April 15, 20	09	
Location:	Pancoe–Evanston Northwestern Healthcare Life			
	Sciences Pavilio	n - 212 rive		
	Evanston Campu	us 60208		
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To get the a	ddress and the dir	ection use the link	K:	
niip.//aquavite.	nonnwestern.edu/ma	ps/buildirigiookup.cgi	2100kupia=212	
Cost:	Members - \$20	Unemployed Me	embers - \$10	
	Students - \$5	Non-Members -	\$25	
<u>To Regis</u>	ter Click Below	v or go to <mark>www</mark>	v.aiche-chicago.org	
http://quest.	went.com/EV/ENTS/Info/In	vitation aspx?e=a5d6395h	-15cf-40h5-a410-a71406h39afd	
<u>Agenda</u>				
6:00 - 6:30 pm 6:30 - 7:30 pm	Registration Dinner & Po	ster Viewing		
7:30 - 8:30 pm 8:30 - 9:00 pm	Presentation	1 Awards & Poster		
0.00 0.00 pm	Contest win	iners announced	Chicago	

Chair's Corner "PROFESSIONAL REGISTRATION"

Recently there has been a lot of buzz among our members about raising the requirements for profession registration. What's that all about?





However, in the interest of public safety, architects and engineers responsible for designing buildings and structures inhabited by the general public are required to affix their seal to the design documents for these buildings. This is as it should be. The upshot is that a civil engineer (CE) or structural engineer (SE) severely restricts their options by not being registered. Other engineers, including chemical engineers, who do not design habitable structures or consult directly, may register or not as they desire.

Traditionally, the undergraduate curriculum at accredited American colleges has been sufficient to prepare chemical engineers to begin their careers as practicing engineers in the process industries. The great majorities of chemical engineers do not get advanced degrees nor are they registered. Yet, they continue to learn new skills throughout their working lives and make meaningful contributions to their employers and their communities. Lifetime learning is essential in the chemical processing industries to avoid technological obsolescence. Good chemical engineers keep current even without the continuing education required by state licensing boards.

So, why should a chemical engineer get registered? As discussed above, if you ever want to start your own consulting business, you need registration. Otherwise, it's up to you. Personally, I waited quite a while after graduating to get registered. And, I have never stamped a document; after all, no one lives in a P&ID. But, I have noted that the P.E. on my business card carries weight with some people, which can never hurt. And, I certainly enjoyed the feeling of personal accomplishment associated with completing an arduous task.

The ASCE has aggressively advocated increasing the educational requirement for registration to a minimum of the MS degree. This seems to indicate that the civil engineering undergraduate curriculum is generally insufficient to prepare engineers to design safe buildings, bridges, etc. ASCE wants this requirement to apply uniformly to all engineers in all states, including chemical engineers.

Proponents for increasing the education requirement believe that more education would equate to a more well-developed engineer who would elevate the general perception of the chemical engineer. Society would see us as professionals, similar to doctors, as opposed to mere technicians. The "P.E." after your name would carry the same cache as "M.D." You would probably command a higher salary.

Opponents believe that some talented students would be dissuaded from selecting an engineering major, thus thinning the overall ranks of engineers. This would occur at a time when we need our best and brightest students to choose engineering rather than, say, investment banking as they make their career choices. Requiring a MS for registration may cause the BS to become unacceptable as the terminal degree, which might not be the best use of our resources. What is necessary for civil engineers may not be a good idea for chemical engineers. And, there is no hard evidence that raising the degree requirement would prove any benefit to the public.

ASME, AICHE, and other national engineering societies have issued a position paper against this ASCE proposal. While the AICHE's tax-exempt status means that the Chicago Section cannot lobby for or against changes to registration laws, your individual voices can be heard by our state legislators who must act to make any change to the current Illinois state registration laws. We intend to post draft letters to the governor for both proponents and opponents use. You can also voice your opinion on this subject to: Daniel Bluthardt (Director of IL Division of Professional Regulation), www.idfpr.com. Please copy me or Steve Schade, the Section Secretary. We will summarize your responses and report back on what you think and why. If there is sufficient interest, we will sponsor a forum on the subject, possibly prior to our May monthly meeting.

Pat Shannon Middough, Inc

AIChE Live Webinars in April

Job Derailment vs. Success: Advice for New Engineers April 1st at 2:00 p.m. ET

*A Perspective on the World's Energy Challenge April 7th at 2:00 p.m. ET

*Changes in the Energy Market and their Impact on the Chemical Industry April 15th at 1:30 – 3:00 p.m. ET

<u>*Challenges for Global Energy</u> April 22nd at 1:00 – 2:45 p.m. ET

Webinars are currently **FREE** to all logged-in AIChE members and \$79.95 for non-members. If you attend an AIChE webinar as a non-member and join AIChE within 30 days, you can use the \$79.95 as a credit against your dues payment.

Once you register you don't have to do anything until you receive log-in instructions in your Webinar confirmation email, which will be sent the day before the session. You and the other attendees will be logging-in to the webinar website to view and hear the presentation.

STRUCTURAL HEALTH MONITORING DOCTOR'S ORDERS

Jan D. Achenbach

Center for Quality Engineering and Failure Prevention Northwestern University

Generations of students are often defined by the important technological issue of their time. I was a member of the Sputnik Generation that worked on and was funded by the effort to put a man on the moon. The relevant issues of technology are like waves pounding on a beach. Scientists and engineers pick up a new wave way out in the ocean, ride it to the beach, and then stay near the shore or better, swim back to catch another wave. It is of vital importance to be prepared for the next wave. The wave I have been riding recently is one of structural safety.



The structural integrity of safety-critical structures is of enduring concern to society at large. Structural degradation, whether caused by inherent material aging due to the environment and service loads (fatigue, corrosion, etc.) or by unpredictable external events (impact, etc.), is pretty much inevitable. Unfortunately, the consequences of catastrophic structural failure may include loss of life and economic disruption.

The talk will start with a few examples of spectacular failures. We will then proceed with a discussion of the concepts of Structural Health Monitoring that can prevent structural failure of safety-critical structures, which cannot be allowed to fail in service. An SHM system provides continuous (or on-demand) information about the state of a structure so that an assessment of the structural integrity can be made at any time, and timely remedial actions may be taken as necessary. A large number of sensors form the front end of an SHM system to provide information on the condition of the structure. The data from the sensors is incorporated into structural analyses and failure models to assess the state of the structure for timely maintenance and repair, and to product the remaining lifetime. A probabilistic approach is essential for SHM.

To Register Click the link:

http://guest.cvent.com/EVENTS/Info/Invitation.aspx?e=a5d6395b-15cf-40b5-a410-a71406b39afd

BIOGRAPHY

Jan D. Achenbach

Center for Quality Engineering and Failure Prevention Department of Mechanical Engineering McCormick School of Engineering and Applied Science Northwestern University, Evanston, IL 60208, USA

Jan D. Achenbach is an expert on the propagation of waves in solids, with present emphasis on the theory and applications of ultrasonic methods to quantitative non-destructive evaluation, particularly the measurement of elastic properties of thin films by acoustic microscopy, and the detection of cracks and corrosion in safety-critical structures. In recent years, he has worked on the development of probabilistic methods for structural health monitoring of fatigue damage in structural components for the purposes of Diagnostics and Prognostics. He is the author of a wellknown book entitled "Wave Propagation in Elastic Solids" (Elsevier Science, 1973, available in paperback), and a recent book entitled "Reciprocity in Elastodynamics" (Cambridge University Press, 2004), as well as numerous papers in technical journals.

Achenbach studied aeronautical engineering at Delft University of Technology, the Netherlands, and earned his Ph.D. at Stanford University in Aeronautics and Astronautics. He is a Walter P. Murphy and Distinguished McCormick School Professor in the McCormick School of Engineering and Applied Science at Northwestern University. He was named to the National academy of Engineering in 1982, the National Academy of Sciences in 1992, and elected a Fellow of the American Academy of Arts and Sciences in 1994. He became a Corresponding Member of the Royal Dutch Academy of Arts and Sciences in 1999, and was awarded the ASME Timoshenko Medal in 1992, the SES William Prager Medal in 2001, and ASME Honorary Membership in 2002, as well as a number of other awards. In 2003 he received the 2003 National Medal of Technology, and in 2005 the National Medal of Science.

PE License Debate

AIChEs national committee recently issued an e-mail "AIChE Position on Changes to PE License Requirements" to all its members. This e-mail has touched off a spirited debate amongst the Chicago section officers and committee chairs.

The Chicago section wants to know your opinion on the matter. Please send you thoughts to: <u>aichechicago@gmail.com</u>.

Chicago AIChE's government interaction committee is responsible to "monitor government activities focusing on the issues that could impact chemical engineers, and coordinate Chicago Section activities in this regard to provide advice and guidance to local, state and national governments in the areas involving chemical engineering knowledge" As such, this committee will monitor the response from our members and officers and will coordinate our response to the State of Illinois. If you would like to be involved in this activity, contact John Mylar at <u>imylar@northfieldlabs.com</u>.

What's changed?

The change in the Model Law of the National Council of Examiners for Engineering and Surveying **requires a master's of science degree** or its equivalent beginning in 2020. That would be on top of the current requirements that you have graduated from a four year, ABET-accredited engineering program; have four years of work experience; and pass the Fundamentals of Engineering examination. State legislatures and governing boards are being urged to adopt this change by 2012 so it can be implemented in 2020.

AIChE Chicago Section Poster Competition

Competition:

Wednesday April 15, 2009 6:30 PM – 7:30 PM

Northwestern Evanston Campus, Pancoe Hall

Prizes:

Cash prizes to the top undergrad and grad students

To Enter:

Submit abstracts (500 words or less) to Liz Kacmar (<u>Elizabeth.Kacmar@uop.com</u>) by Sunday April 12, 2009

More Info:

Posters on any topic related to chemical engineering are welcome, including research and senior design projects. The competition will be judged by chemical engineers using the AIChE National Student Poster Session judging criteria (<u>http://www.aiche.org/uploadedFiles/Students/Conferences/</u> <u>poster_judgeform.pdf</u>).

Questions?

Contact Beth Carter (<u>Beth.Carter@uop.com</u>)

FE/PE Informational Session Summary

The FE and PE Exam Informational Session presented by Young Professional Advisory Board (YPAB) and UIC's AIChE Student Chapter was held at UIC on March 5. Thanks to our Professional Engineer guest speakers Dan Rusinak, Dr. Jeff Perl and Bob Hartwell for volunteering their time to offer wonderful advice from their own personal experiences. Thanks are also extended to Dima Alfawakhiri and the UIC Student Chapter for hosting the event.

For those who were unable to attend, the following is a summary of the discussion.

Exam Overviews

The Fundamentals of Engineering (FE) exam and the Principles and Practice of Engineering (PE) exam are administered by the National Council of Examiners for Engineers & Surveyors (NCEES) and are offered to all engineering disciplines. The exams are held twice a year in April and October in a few preassigned locations in each state. A passing grade on both exams is necessary to obtain a Professional Engineer's License. A current license is required to sign off on drawings and certify the quality of engineering design. The purpose of this requirement is to allow the government to raise the bar on engineering competency to ensure public safety.

Professional License: Importance to a Chemical Engineer

Chemical Engineers help to protect public safety by designing safe plants which incorporate safety interlock systems, containment, and waste treatment, utilize green chemistry and are environmentally friendly. Chemical Engineers do not have a legal requirement to stamp drawings, though there are many other reasons to pursue a professional license. At minimum, a license demonstrates a higher level of educational preparation and status similar to other professionals like doctors and lawyers. In addition, obtaining a license proves an engineer's desire to continually learn and improve upon technical skills in their field. High public esteem, increased monetary compensation, transportable knowledge and recession-resistant positions are also common benefits shared by all professionals including PEs.

Exam Requirements

Requirements to take the FE and PE exams vary from state to state. All applicants should research their state's specific requirements before applying for either exam. In Illinois, first time applicants attending ABET (Accreditation Board for Engineering and Technology) accredited schools can take the FE exam within one year from expected graduation. After graduation, there is a six month waiting period before engineers can take the FE exam which typically includes a more difficult application process. Though, it should be noted that many employers will pay for an employee to take both exams. Engineers can take the FE and PE an unlimited number of times, though a new formal application is required after three attempts.

FE/PE Informational Session Summary

Studying for the Exams

Most Engineers in Training (EITs) and PEs recommend taking the FE before graduation as much of the information taught in ABET schools is covered in the exam. By choosing to take the FE early, students have successfully passed the FE with little or no studying. In general, a few review sessions and practice problems in areas of weakness prove sufficient in this case. If inclined, students can also take full-length practice exams and/or download practice questions and solutions through the NCEES website. Studying for the PE exam is much more time-intensive, recommended at 12 weeks. The exam covers a wide range of topics that many engineers will not use on a daily basis. There is a wide array of suggested study plans on the internet or engineers can purchase recommended reference and practice problem handbooks from the Professional Publications Inc (PPI) website www.ppi2pass.com. The PPI references are highly recommended by PEs, who also recommend purchasing all references early and becoming extremely familiar with the books to make sure information can be easily and quickly found during the exam. A list of topics and percentages of questions for focused studying on both the FE and PE exam can be found at the NCEES website.

Exam Formats

Both exams are usually eight hours long. The FE is divided in to a general engineering portion and a discipline specific portion or an optional second general engineering portion. The PE is divided into breadth or overall discipline portion and a more in depth portion that focuses on specific topics in detail. No outside reference material can be brought into the testing facility for the FE exam. The NCEES reference handbook is the only reference provided for the test and can be downloaded free of charge from the NCEES website. Alternatively there is no limit on the number of references (books without practice problems) that are allowed into the PE Exam, though many PEs recommend only a few good references, including: *Perry's Handbook*, the PPI reference manual and the *Chemical Engineer's Reference Manual*. A minimum passing grade on the FE is 70%. Not all questions are weighted equally, so answering 70% of questions correctly may not necessarily result in a passing score. The best advice for both exams is to look through the entire exam before beginning. Starting with the very first question is not required, so it is suggested to start with the sections covering topics that will be easiest for you. In addition, the PE includes much longer problem statements that require the examinee to pick out the important information necessary to solve the problem.

Engineer in Training/Engineer Intern

Passing scores on the FE elevate examinees to EIT or Engineer Intern. Interestingly, an EIT in addition to any bachelor's degree meets the technical requirements for applying for the U.S. Patent and Trademark Office's registration examination to become a registered patent attorney or patent agent. Most states require EITs to gain a minimum of four years of practical experience before applying for the PE exam. The PE application is also accompanied by several letters of reference describing the applicant's knowledge, work history and capability. Preferably all references should be PEs in a supervisory roll, though it is not uncommon for state boards to accept recommendations from engineering co-workers and supervisors without professional licenses.

License Reciprocity

Once an engineer has passed the PE in one state, they are not required to retake the exam for every state where a PE license is desired. A written request supplemented by extensive work history and/or recommendations and a licensing fee will satisfy most states requirements to obtain a license in that particular state. To learn more about each state's specific requirements, contact the state's licensing board. Contact information for all states is available on the NCEES website.

Maintaining a PE License

To maintain a license, a bi-annual fee from each state where a PE license is held and 15 professional development hours (PDH) per year are required. A PDH is defined as 50 minutes of technical instruction or seminar. Publishing a paper, active participation as an officer or on a committee of a professional society, Lunch & Learns, teaching engineering courses and some volunteer opportunities also qualify for PDHs. Since roughly 5% of PEs are audited every year for proof of PDH requirements, certificates signed by the instructor are suggested. Many instructors are not aware of PDH credits, therefore often the engineer must take the initiative by creating a certificate and requesting the instructor's signature at the end of the session.

Similar to other advanced degrees, a PE license shows an engineer's high degree of professionalism and offers numerous career opportunities. Engineers who wish to practice their profession to its fullest extent, elevating themselves among fellow engineers, and dedicate themselves to continuing education should consider pursuing a professional license.

By: Jessica Swary Middough Inc.

2009 AIChE Spring National Meeting and

5th Global Congress on Process Safety

The AIChE Spring National Meeting (**April 26-30, 2009**, **Tampa**, **FL**)is the year's key technical conference for practicing chemical engineers. A wide range of subjects relevant to the current needs of industry is covered. Plus, the Global Congress on Process Safety covers the critical needs of process safety practitioners more broadly and deeply than any other conference.

Highlights of the 2009 meeting will include:

• Spring Keynote Address (Monday, April 27) - Alan Boeckmann, Chairman and Chief Executive Officer, Fluor Corp.

• **Developing Energy Strategies Plenary** (Tuesday, April 28) - Panel discussion moderated by Dr. Clifford M. Gross, Chief Executive Officer and Chairman of the Board of Directors of UTEK Corporation. Confirmed panelist include:

- o Charles R. Black, President, Tampa Electric Co.
- o Reyad Fezzani, CEO, Global Wind & Solar, BP Alternative Energy
- o Donna Jacobs, Senior Vice President of Planning, Development and Oversight, Entergy Nuclear

o **Water Sustainability Plenary** (Wednesday, April 29) - Panel discussion moderated by Mary Ellen Ternes, Chair, Environmental Practice Group, McAfee & Taft, P.C. & Vice Chair, The American Bar Association's Climate Change, Sustainable Development and Ecosystems Committee. Confirmed panelists include:

- Michelle Diffenderfer, Shareholder of Lewis, Longman & Walker, P.A.; General Counsel to the Chamber of Commerce of the Palm Beaches and the Florida Earth Foundation
- David L. Moore, Executive Director, Southwest Florida Water Management District, Brooksville, Florida
- Jorge T. Aguinaldo, Vice President, Technology and Development, Doosan Hydro Technology, Inc.
- The 21st Annual Ethylene Producers' Conference
- 12th Topical Conference on Refinery Processing
- 9th Topical Conference on Natural Gas Utilization

The 5th Global Congress on Process Safety featuring:

- 24th CCPS International Conference
- 43rd Loss Prevention Symposium
- 11th Process Plant Safety Symposium

Plus, topical conferences on Distillation, Microreactor Engineering, and Sustainability, Emerging Energy Frontiers, and Advanced Fossil Fuel Utilization.

Registration is open now!

Are you formulating Plan B for your Career in This Economy?

Many engineers are wondering if their positions will survive this economy. Meanwhile, we read of the stimulus package and billions of dollars to be spent by the government on energy and sustainability projects. Your plan B position could be a position generated by the stimulus. We have all read that a cap and trade system for carbon is coming. If it does, Chemical Engineers everywhere will be needed to set baselines and audit counts for the purpose of the trade.

Consider attending the Carbon Counting course offered at the Spring Meeting. Register at AIChE.org. The class will be held in Tampa on Sunday, April 26. The cost is \$499. This is less than the \$750 or more normally charged for this course.

CARBON/GREENHOUSE GAS EMISSIONS ACCOUNTING AND MANAGEMENT

A NEW ONE-DAY TRAINING COURSE

WHY THIS COURSE?

Organizations are under unprecedented pressure to manage their carbon emissions, including the Western Climate Initiative. Managers need the skills to be able to make the right decisions for their organizations.

WHO SHOULD ATTEND?

Anyone wishing to implement or expand a carbon strategy for their organization and those wishing to develop their carbon accounting and management knowledge and skills.

WHAT ARE THE KEY BENEFITS?

This 1-day course will equip attendees with the skills to manage the impact of their organizations on climate change by measuring and reducing greenhouse gas (GHG) emissions, and/or influence their organizations to introduce carbon management programs that can produce significant financial benefits.

WHAT DOES THE COURSE COVER?

- Mechanisms of anthropogenic climate change
- Economic and sociopolitical drivers
- Overview of regulatory status
- Standards and protocols
- GHG reporting
- Industry and commerce GHG/carbon dioxide emissions
- GHG emissions quantification
- Carbon dioxide emission factors
- Carbon footprint calculation
- Energy use and emission reduction methods
- · Process control and modification to reduce emissions
- Opportunities for using renewable energy
- GHG/carbon emissions management programs and strategies

An over view of March Meeting

The March meeting was held at the Metcalfe Federal Building on March 18th. This is the US EPA Region 5 headquarters. The EPA presented on Combined Heat and Power. Dennis Wesolowski, Director of the Chicago Regional laboratory provided a very informative overview of what Region 5 does.

Alexis Cain gave an excellent talk on help that the EPA can give on projects that involve combined heat and power. These are usually gas turbine or fuel cell projects with heat and/or steam as a secondary product. Very high efficiency boilers are also covered by the enabling rules.

The pizza from Giordano's was enjoyed by almost 80 attendees. Among the attendees were members of ASHRAE, ASME, and IEEE.

May Meeting Notice

This year the Chicago section of the AIChE will be having it's **May 13** Election meeting at Cantigny Park, Le Jardin Room, in Wheaton, IL. <u>www.cantignypark.com</u> At this time of the year the gardens should be coming into full bloom. We would like to encourage spouses to attend. In addition to a lively talk on Food Safety by Alfredo Rodriguez of the National Center for Food Safety and Technology – Moffett Campus of the IIT, we will have an informal tour of the "Formal Gardens" by Mike Rouse. Besides being a Chemical Engineer he has owned and operated a nursery. Mikes passion is flowers and is very interesting. He is actively involved in a breeding program to produce the "Holy Grail" of horticulture, the Red Perennial Sun flower. Since we have guaranteed this program we would like to get an early count. This also means that we will have to cut registration off early. We have always welcome walk-ins. It just means there might not be enough food to go around. Indicate your non binding attendance in the April Cvent registration notice.

SimuTech Launches Lend A Hand Program

Program provides free ANSYS simulation software program for unemployed engineers. SimuTech Group is reaching out to engineers that have been recently displaced or unemployed.

The "Lend a Hand" program will provide free training of ANSYS simulation software at any of SimuTech Group's North American training facilities. The goal is to provide engineers with a marketable skill that will place them in a more competitive situation as they search for employment opportunities.

"ANSYS products are an integral part of the engineering process in many different industries throughout the world," says Ken Lally, CEO of SimuTech Group. "If you simply type the keyword 'ANSYS' into any of the major career sites such as Monster.com or CareerBuilder.com, you can easily find numerous employment opportunities requiring ANSYS expertise. In these difficult economic times, every little bit helps and SimuTech Group hopes that these classes will provide engineers that extra edge needed in finding employment. "

Qualifying engineers will be able to attend all level of classes for **ANSYS Mechanical**, **ANSYS Fluent**, **ANSYS CFX**, and **ANSYS AUTODYN** simulation software programs. Upon the successful completion of the class, attendees will receive a certificate of completion.

For more information, visit *www.simutechgroup.com*

Election Of Section Officers

ABSENTEE BALLOTS

Election of officers will be held at the annual meeting on **May 13**. If you expect to be absent from this meeting, you may vote by absentee ballot. Please contact Steve Schade at <u>sschade@ambitech.com</u> to obtain one.

Upcoming Meetings and Events

15-April	STRUCTURAL HEALTH MONITORING DOCTOR'S ORDERS, Jan Achenbach			
24-April	Peck Lecture @ IIT & IIT ChBE Distinguished Alumni Awards!			
26-30 April	2009 AIChE Spring National Meeting and 5 th Global Congress on			
	Process Safety Tampa Convention Center, Tampa, FL			
13-May	FDA Food Safety			
23-27 August	8th World Congress of Chemical Engineering (WCCE8) and			
	XXIV Interamerican Congress of Chemical Engineering and 59th Canadian Chemical Engineering Conference (CSChE 2009) Palais des congrès de Montréal, Montréal, QC			
8-13 November	The AIChE 2009 Annual meeting, Nashville, TN.			

Officers and Contact Information			
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AICHE CHICAGO SECTION

American Institute of Chemical Engineers

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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 <u>aichechicago@gmail.com</u> with "newsletter article" as a subject line.

AICHE Publicity Committee	Academic (non-AICHE)		Company		Recruiters	
Fees	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 austomore					4	H

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.

