
AIChE® The Pipeline

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H. Petterson and R. Berg, Co-Editors

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NEWSLETTER OF THE EAST TENNESSEE SECTION OF AIChE

Local section website

<http://www.tnengineering.net/AICHE/>

Local section mailing address

PO Box 3488 Kingsport, TN 37664-3488

Preview of the Kingsport Center for Higher Education



- What:** February 2009 AIChE East Tennessee Section Meeting
- Who:** **Dr. Gloria Gambell, Program Manager for the Kingsport Center for Higher Education, University of Tennessee**
- When:** Wednesday, February 18, 2008
Pizza lunch from 11:30 a.m. to noon (Please bring own drink)
Presentation from noon to 1:00 pm.
- Where:** Eastman Chemical Company, Bldg. 150, Kingsport, TN
Presentation and pizza location TBD
- RSVP:** **Patrice Riesenber**g (patrice@eastman.com)

The Kingsport Center for Higher Education has received lots of attention in recent months. The city of Kingsport broke ground on this \$12.9 M, 54,000 square-foot facility June 30, 2008 at its site on the corner of Clay and Market streets. The center will be able to accommodate approximately 800 students and will include a 220-seat auditorium, two 60-seat lecture halls, classrooms, a media center and physical science labs. Northeast State Technical Community College will operate the facility and offer the first two years of core classes toward a bachelor's degree. Participating schools such as King College, Lincoln Memorial University, Carson-Newman, Tusculum and the University of Tennessee will also offer bachelor's and master's degrees.

On February 18, Dr. Gloria Gammell, the University of Tennessee Program Manager for the Kingsport Center for Higher Education, will be with us to discuss the Center, including an overview of its history and mission, the colleges involved, the expertise each school will bring to the Center, and UT's specific contributions. The discussion will wrap up with questions & answers. She will also have information on the various programs UT is promoting.

Dr. Gammell began working for UT on August 1, 2008. She represents the online degree programs offered throughout the UT system of campuses including Knoxville, Chattanooga, Martin, the Health Science Center (Memphis), and the Space Institute (Tullahoma). The UT system offers over 20 online degrees. Dr. Gammell earned her doctorate in Higher Education Administration from Vanderbilt University. Her dissertation research focused on the transition to college experience for first-year Appalachian students. Her 20+ year career in higher education began at the University of Kentucky where she was an academic advisor for the College of Nursing. She was Director of Program Administration for Siena Heights College in Southfield, Michigan, an adult degree-completion program, and was Director of Student Services at the East Tennessee State University College of Nursing for nearly 10 years. While completing her doctorate, she was Director of the CHIPS (Change Is Possible) Family Violence Shelter in Erwin, TN. More recently, she was the Director of the Evening and Weekend College at Virginia Intermont College in Bristol. She is also an adjunct instructor in the College of Education at East Tennessee State University. She moved to the Tri-Cities in 1993 from Ann Arbor, MI, and currently resides in Erwin, TN with her geriatric poodle, Buddy Ellen. In her spare time, she enjoys cooking, gardening, and traveling in the U.S. and abroad.

Message from the Chair, Luke Stewart

I would like to start off by mimicking what Tim addressed in the December *Pipeline* by thanking all of the outgoing officers on a wonderful year in 2008 as well as welcoming our new officers for 2009. I look forward to working with each of you to ensure 2009 is just as good of a year for AIChE as 2008 was. I would like to say a special thank you to our outgoing Chair, Tim Nolen. I, as Vice-Chair, learned a tremendous amount from him about what it takes to lead such a prestigious organization. I would also like to thank our Programming Committee for putting together such wonderful programs for the 2008-2009 Programming year.



On January 20, 2009 the United States of America welcomed its 44th President, Barack H. Obama. President Obama inherited a deepening global economic crisis, one war winding down in Iraq, increased threats in Afghanistan, Israel, and Iran, increased environmental concerns, and many other issues. However, one thing is clear (and most important to this organization)—the chemical industry is not immune to the effects of the volatile times we are in. Over the last six months we have seen record high prices for metals, labor, raw materials, and energy only to see the bottom fall out from under these rates. I salute those of us whose job it is to assemble capital estimates of manufacturing facilities during these times—it truly is challenging.

Yet out of this recession, another challenge arises which is central to the theme of AIChE. Consumer demand has fallen while commercial demand has fallen farther as a result of many customers de-inventorying (to offset falling consumer demand) and delaying orders while they wait for the bottom prices. As chemical engineers, our companies are relying on us to help pull them through, and AIChE insists its members serve (via our Code of Ethics) “with fidelity to their employers, their clients, and the public.” We are therefore being challenged to react to this recession with enthusiasm and engagement in order to ensure that our companies succeed.



The Programming Committee has, therefore, focused its efforts on selecting programs that are central to the issues we are facing—among those is energy. We opened this programming year with a tour of a biodiesel plant in September, we heard a program on sustainability in October, and we recapped the history of Nuclear Fuel Services in November. In March we will hear about the nuclear power revival with the TVA, and in April, Dale Keairns, the 2008 President of AIChE, will speak to us about energy in the chemical industry. That’s 56% of our programs this year that have or will emphasize energy.

Please join me in showing great support for our guest speakers who have graciously volunteered their time to speak to our Local Section. I hope 2009 is your best year ever.

Luke

East TN Local Section Chair, 2009

Professional Engineering Exam Review Course

An Announcement from Joe Parker

The Professional Engineering Exam for Chemical Engineers is offered twice annually: in the middle of April, and at the end of October. In the past, the East Tennessee Section of AIChE has offered a review course for those planning to sit for the exam. The winter months seem to be more conducive to studying for the exam, so the course has traditionally been offered in February and March. Many who do not plan to sit for the exam until October also attend the class, however, in order to refresh their memories about the topics they will be reviewing.



If you are interested in attending this course, please contact Joe Parker at 423-229-3850 (e-mail jlpark@eastman.com) so we can determine if there is sufficient interest to hold the course next year.

The class would meet one night a week for six weeks; each week, a different subject would be reviewed. The subjects that would be covered in the course are:

Mass and Energy Balances
Thermodynamics
Fluid Mechanics
Heat Transfer
Mass Transfer
Reaction Kinetics

Each session would last two to three hours. The course would begin around the first week in February, and the cost would be \$25 per person.

EVEN IF YOU ALREADY HOLD AN ENGINEERING LICENSE, YOU MAY WISH TO ATTEND THIS COURSE! The State of Tennessee requires each licensed engineer to obtain 24 Professional Development Hours (PDHs) over a two-year period in order to retain his or her engineering license. The East Tennessee Section of AIChE will award PDHs according to the number of class hours attended. Students who attended all sessions of the course in 2006 received 14 PDHs, more than enough to satisfy the requirement for one year.

January Meeting – Corrosion w/ Robert Sinko



There were over 100 attendees at the lunchtime meeting on January 21, either in the Eastman B-150 Auditorium or by LiveMeeting at NFS. After a pizza lunch in the Auditorium, Robert Sinko gave a presentation on corrosion basics. Robert is in the Materials, Vessels and Piping Technology group in Worldwide Engineering and Construction at Eastman.

Robert presented some background on the history of the science of electrochemistry, and on the thermodynamics of corrosion. He summarized the thermodynamics of the process as: “Man sees ore in its lowest energy state. Man transforms ore into a useful object. Nature wants her dirt back. Nature transforms the object back to dirt.” Robert also explained the electrochemical process that causes corrosion as well as some of the polarization processes which occur to slow down corrosion. Several mechanisms (including general, pitting, underdeposit, dealloying, galvanic, environmental, corrosion fatigue, cavitation, and erosion corrosion) were reviewed, and Robert provided samples of most of these for all to inspect. Methods for monitoring and testing corrosion rates, both in the field and in the laboratory, were explained.

Because of the breadth of the topic, Robert was only able to scratch the surface of the material (so to speak) in the time available, but for those interested in a more in-depth education, he recommended the NACE International (originally the National Association of Corrosion Engineers) basic corrosion class (information through www.nace.org), or the ASM International (previously the American Society of Materials) corrosion course (information through www.asminternational.org). If you couldn't make it, you missed an informative and entertaining talk on an important topic to chemical engineers. Hope to see you next month!

Calendar of upcoming events

February 16-20, 2009 – Engineers' Week



February 18, 2009 – Program: Kingsport Center for Higher Education w/Dr. Gloria Gammell

March 7, 2009 – ASME Egg Drop Competition (1-3PM at Kingsport Towne Center Mall)

March 10, 2009 – Program: The Nuclear Power Revival w/TVA speaker

April 2009 – Program: Energy and the Chemical Industry w/Dale Keairns, 2008 AIChE President

May 2009 – E-Chem Expo

May 11, 2009 – Program: Bays Mountain Planetarium w/Dinner at Eastman Lodge (joint w/ACS)

Keep Up With the Local Section Online

Up-to-date information about the East Tennessee Section of the American Institute of Chemical Engineers can be found [on our website](http://www.tnengineering.net/AICHE) (www.tnengineering.net/AICHE). The website includes the Local Section Bylaws, List of Officers from 1945 to present, and an archive of Pipeline Newsletters - to mention only a few aspects of the information covered. Photos from past events can be found, along with contact information for the Local Board. Review the site occasionally and keep up with the local section!

2009 Local Section Officers, Directors, & Support Staff

Chair:	Luke Stewart	229-5173
Chair-Elect and Program Committee Chair:	Paul Fanning	229-8500
Secretary:	Patrice Riesenber	229-8980
Treasurer:	Noah McMillan	229-8114
Directors:	Burts Compton	229-8526
	Jennifer Mize	224-7018
	Heather McNabb	229-3102
Local Section Webmaster:	Tim Nolen	229-8287
Short-Course Coordinator:	Mark Shelton	229-4753
Professional Development Coordinator:	Joe Parker	229-3850
AIChE Pipeline Newsletter Editors:	Heather Petterson	735-5481
	Rich Berg	224-7393
ETEAC Representative:	Joey Watson	229-6486
