

ASEE Chemical Engineering Division Newsletter



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A Message from the Chair

"Everything old is new again." - Peter Allen, Carole Bayer Sager

Friends:

Fall is here and with it, the beginning of a new school year. For many, the first day of classes is a little bit like an academic New Year's Day - hopeful resolutions (I'll try to be a little bit more organized this year; I'll try at least one new teaching technique this year; I'll get my grades back earlier this year; I'll work really hard on outcomes assessment this year) as well as a little of that 'hung over' feeling from those extra freedoms that are often enjoyed over the summer season. Optimism fills the air - "I'll be a better and more caring professor;" "I'll have more dedicated and smarter students;" "I'll work with more understanding and supportive administrators." I know that I often enter Fall term this way. Summers have a recharging effect.

Talking about recharging, the annual ASEE meeting always hits the spot for me and the 2012 meeting at San Antonio was no exception. At the ASEE meeting I get to interact face-to-face with a group of interesting folks who are enthusiastic about all aspects of engineering education. The excitement is contagious!! I never fail to return to my campus without at least one new idea to try out for myself. Of particular interest to me this year was our open mic session moderated by Margot Vigeant on topic of "To Infinity and Beyond" or, more specifically, "what knowledge, skills, and attitudes will the chemical engineering of 2020 need?" As often happens when you have assembled a large group of folks who are paid to talk for a living, the conversation, and topic, quickly jumped the tracks and took on a lives of their own, with many participants

providing both insights and questions about the projected future of engineering education and the chemical engineering profession. This session was truly and example of karaoke for the engineering soul. It is my understanding that there may be a similar session planned for Atlanta in 2013.

Speaking of Atlanta, Georgia, the ASEE 2013 Conference and Exposition will be held there June 23-26, 2013. The chemical engineering division Call for Papers for this meeting has been issued. The abstract submission phase opened August 1 and will conclude on Friday September 21, 2012. Questions regarding the CHED Call for Papers and/or the abstract submission process should be directed to our program chair, Daniel Lepek, at lepek@cooper.edu.

Looking back, I would be remiss if I didn't thank outgoing officers Stephanie Farrell (CHED chair) and Margot Vigeant (program chair) for their excellent service. Their efforts helped keep the CHED moving forward.

Oh well, enough random rambling for this newsletter introduction. Have a great time this school year and, to quote Sergeant Phil Esterhaus, "Let's be careful out there!"

Wishing you the best,

Mike Prudich, Ohio University



2012 SUMMER SCHOOL

University of Maine in Orono, Maine was July 21-27, 2012

Organizers: Joseph A. Shaeiwitz (update author), Randy S. Lewis, Jennifer S. Curtis, John J. Hwalek, Sundararajan V. Madihally, Greg Ogden, & Kim Ogden



The 15th ASEE Chemical Engineering Division Summer School was held at the University of Maine from July 21-26. There were about 100 newer faculty members and about 60 workshop presenters participating. Highlights included an all-day teaching workshop presented by Rich Felder and Rebecca Brent, 24 workshops, three poster sessions, an industrial plenary session, the Chemstations Lectureship presentation, and other networking activities.

All newer faculty members were required to present a poster on an educational topic of their choice at poster sessions. These poster sessions were bustling with activity, in which all attendees exchanged ideas about teaching and chemical engineering education.



Sunday, was an off-campus activity day. Two buses were provided for those wishing to visit Bar Harbor. About 20 people hiked the North Ridge Trail up Cadillac Mountain. Others went to Bar Harbor, where activities included a cruise to see area lighthouses. Others took a bus tour of the Acadia National Park Loop. Upon returning to campus, there was a picnic.

The sessions included a mix of novel pedagogy, novel course content, professional development, safety, assessment, and teamwork. Most sessions were offered two or three times to allow everyone to attend their preferred sessions and to keep the number of people per session low. Sessions were held in the morning and evening, with the afternoon free for other activities, including social events. Poster sessions were also in the evenings, on nights with no sessions.

The industrial plenary session featured speakers from industry and focused on safety and the needs of industry. The recurring theme was that the traditional chemical industry still needs traditionally trained chemical engineers, who can solve chemical engineering problems, are able to work in a safe environment, work on teams, and communicate well.

The Chemstations Lectureship was presented by Professor John Ekerdt from the University of Texas. He received this award for his research in catalysis and reaction engineering and for his contributions to chemical engineering education. He devoted his lecture to methods of teaching chemical reaction engineering.



The summer school ended with a banquet on Thursday, July 26, featuring lobster. Follow-up surveys will be conducted to assess the impact of the summer school. However, informal feedback gathered from participants upon their departure was very positive. It was evident that the camaraderie developed will extend well beyond the summer school.

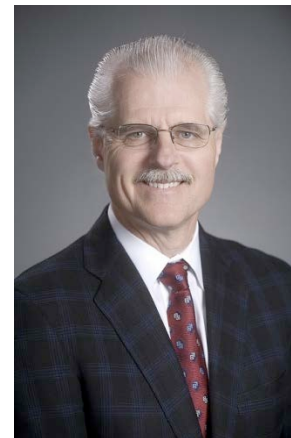
The ASEE Chemical Engineering Division gratefully acknowledges the supporters of the summer school. Significant sponsorship was provided by NSF. Major industrial support was provided by Air Products, BP, Corning, and ExxonMobil. Other industrial support was provided by DuPont and Merck.



2012 Winner of the
CHEMICAL ENGINEERING DIVISION LECTURESHIP AWARD
sponsored by Chemstations

John G. Ekerdt

Dick Rothwell Endowed Chair in Chemical Engineering
Department of Chemical Engineering
University of Texas at Austin



Approaching Chemical Reactor Analysis and Design

Chemical reactors are at the core of the chemical engineering discipline, and chemical reactor analysis and design is one of the distinguishing courses that separates chemical engineers from other engineering professionals. The areas of application continue to expand beyond the traditional chemical process industries to include manufacturing solid or particulate products and value added products using biological cells, to name two examples. We can expect any list of applications will continue to grow in the future. How then to approach this core subject and provide undergraduate students with the knowledge and tools to solve the problems they will encounter in the future? The list of fundamental design concepts is quite short and when leveraged with convenient, high-level computational languages, students can be presented a framework for how to think about reactors and can experience how the concepts apply to a diverse set of applications. Students need to have the confidence they know how to approach and to solve the complex problems they will encounter. This lecture will describe this approach and illustrate the incorporation of readily available computation tools into the undergraduate reactor design experience.

Biographical Sketch

Dr. JOHN G. EKERDT is the Dick Rothwell Endowed Chair in Chemical Engineering and Associate Dean for Research at the University of Texas at Austin. He received his B.S. degree (1974) in chemical engineering from the University of Wisconsin-Madison and his PhD degree in chemical engineering was awarded in 1979 from the University of California, Berkeley. He has taught at the University of Texas since 1979 and has held various administrative positions in the department, including graduate advisor (1985-1990) and department chair (1997-2005). He is a recognized leader in surface chemistry, and surface and interface reactions whose seminal contributions to research on the reaction chemistry of electronic materials have opened new ways in the production of electronic materials.

2012 Winner of the
CHEMICAL ENGINEERING DIVISION LECTURESHIP AWARD
sponsored by Chemstations

Professor John G. Ekerdt

Biographical Sketch cont.

He has been recognized for his teaching, having won the the first teaching award for assistant professors in the College of Engineering in 1985. From the beginning of his teaching career, he has taught an undergraduate course in reaction analysis and reactor design. His experience teaching this course led to him to co-author a teaching text, Chemical Reactor Analysis and Design Fundamentals (2002), with James B. Rawlings that has pioneered a way to present and teach the field of reaction engineering to undergraduates. He is a fellow of AIChE (2006) and received the C. M. A. Stine Award of the AIChE (2001). He has been chair of the AIChE Materials Engineering and Science Division, the AIChE Chemical Engineering Technology Operating Council, and is currently on the AIChE Board of Directors. He currently has six U.S. patents, more than 250 research publications, three book chapters and two books.

Research Interests

We currently study the surface, growth, and materials chemistry of metal, dielectric, and ferroelectric films. The work seeks to develop and understand the reactions and chemistry that control nucleation and growth of films and nanostructures, and understand the properties of these materials and relate the properties to structure, bonding, and growth. My group also studies the kinetics and chemistry of biomass conversion. Examples of two areas of emphasis are provided below. Essentially all of the research projects are interdisciplinary and benefit from collaborations with colleagues in physics, materials science and electrical and computer engineering.

A nucleating event is needed in the growth of thin metal and dielectric films and in the growth of metal nanoparticles on surfaces. We measure the concentration and the chemical nature of sites on amorphous substrates where nucleation is initiated or where stable metal clusters are trapped using fluorescent probe molecules designed to chemically titrate different proposed sites. The research also explores approaches to inhibit/block the growth of established metal islands and force a higher nucleation density as a route to smooth and ultra thin continuous films. In a related project we are developing a fundamental framework for the growth of homo- and heteroepitaxial perovskite films that is built on theory and experimental validation, develops chemical routes centered on atomic layer deposition, and explores the defect nature of the films and interfaces through spectroscopic and diffraction techniques.

2012 Award Recipients

William H. Corcoran Award

Sponsored by Eastman Chemical Corporation

(for the best paper published in the previous calendar year in Chemical Engineering Education)

Dr. Margot Vigeant, Dr. Michael Prince, and Dr. Katharyn Nottis of Bucknell University are recognized for their paper entitled *Fundamental Research in Engineering Education. Development of Concept Questions and Inquiry-Based Activities in Thermodynamics and Heat Transfer: An Example for Equilibrium vs. Steady-State.*



Joseph J. Martin Award

(for the best paper in the ChE Division at the previous ASEE meeting)

Mr. Erick Nefcy, Dr. Philip Harding, and Dr. Milo Koretsky of Oregon State University are recognized for their paper, *Characterization of Student Model Development in Physical and Virtual Laboratories.*



Ray W. Fahien Award

(for teaching effectiveness and educational scholarship in the first ten years as a faculty member)

Dr. Keisha B. Walters
Mississippi State University

Dr. Keisha Walters joined MSU in 2005 and is currently an Associate Professor in Chemical Engineering. She is highly active in outreach activities ranging from K-12 demos/instruction, engineering intro talks, and teacher workshops to training undergraduates to carry out outreach as part of a leadership program at MSU. She is also enthusiastic in her professional development efforts, including mentoring high school and undergraduate researchers in her lab, offering



career development courses, and advising the Graduate Women in Science and Engineering (G-WISE) group at MSU. Dr. Walters has been recognized with numerous awards for both teaching and her research in polymers and surface modification. She was elected into MSU's engineering college Academy of Distinguished Teachers in 2010.

CACHE Award

Sponsored by the CACHE Corporation

(for contributions to computing in chemical engineering)

Dr. Stanley Sandler
University of Delaware



Professor Stanley I. Sandler has been selected as the 2012 recipient of the ASEE/CACHE Award for Excellence in Computing in Chemical Engineering Education in recognition for his early and continuous use of computers in the thermodynamics curriculum, including a quarter century of incorporating computer programs into all of his textbooks. During the AIChE Centennial Celebration, Professor Sandler was identified as one of "Thirty Authors of Groundbreaking Chemical Engineering Books" (see Chemical Engineering Progress, August 2008). As noted by CEP, the four editions of Chemical and Engineering Thermodynamics (published by Wiley) reflect the rich heritage and shared experience of all chemical engineers.

Lifetime Achievement Award in Chemical Engineering Pedagogy

Dr. John Prausnitz
University of California,
Berkeley



Professor Prausnitz has published nearly 750 research articles in refereed journals; one textbook, *Molecular Thermodynamics of Fluid Phase Equilibria*; one reference book, *Properties of Gases and Liquids* (Fifth edition 2000); and three monographs, mostly concerned with thermodynamic properties of fluids and fluid mixtures for application in chemical process design. His research work covers properties of hydrocarbons, polymers and gels, liquefied gases at low temperatures, aqueous solutions of proteins, solutions of electrolytes, ionic liquids, adsorption of fluids on solid surfaces and similar studies in applied physical chemistry.

2012 Notable Awards & 2013 Opportunities

ASEE LIFETIME ACHIEVEMENT AWARD IN ENGINEERING EDUCATION

Richard M. Felder

Hoechst Celanese Professor Emeritus of Chemical Engineering
North Carolina State University

Richard M. Felder is recognized for his enormous impact on improving engineering education based on four decades of superb teaching; coauthoring Elementary Principles of Chemical Processes, the most widely used chemical engineering textbook; his widely-read and reprinted Chemical Engineering Education column "Random Thoughts;" co-developing the Index of Learning Styles, which is used by over 700,000 people per year; being the most prolific and most frequently cited author in the Journal of Engineering Education; and presenting globally over 400 teaching workshops, including the ASEE National Effective Teaching Institute, which he co-founded.

ASEE Fellow

Richard Zollars

Professor
Chemical Engineering Department
Washington State University

ASEE Board of Directors

Stephanie Farrell, Rowan University was elected to the ASEE Board of Directors as Vice President, Member Affairs

ChED Future Faculty Grant

ChED Mentoring and Travel Grant

Not awarded this year. Be sure to apply for the 2013 grants. They are due October 31st!

ChED Mentoring Grant

ASEE Fellow Grade Membership - consider nominating a colleague!

Fellow Grade of Membership is conferred upon active ASEE members, who have been a member in any grade for at least 10 years, in recognition of outstanding contributions to engineering or engineering technology education.

Nomination: Nominations for Fellow Grade may be made by any ASEE member. A nomination packet containing complete forwarding instructions may be obtained from ASEE Headquarters. All nominations must be received at ASEE Headquarters no later than February 1st.

Selection: The Fellow Member Committee recommends candidates for approval by the ASEE Awards Policy Committee.

Renomination: If not approved, a nomination will be reconsidered for only one additional year without updating and another with updating. If after three years a nomination is not approved, a new nomination may be submitted.

Call for Nominations

The Chemical Engineering Division of ASEE presents awards to outstanding chemical engineering educators at the Division Banquet during the annual ASEE meeting. Nominations of candidates for awards to be presented at the 2013 meeting in Atlanta, GA are due by January 15, 2013, with the winners notified in March 2013. Please consider nominating one of your faculty or colleague at another school for an ASEE Chemical Engineering Division Award.

Award packets should be sent (as a single file) to:

Valerie Young

ASEE ChE Division Awards Co-Chair

youngv@ohio.edu



Instructions for Assembling Nomination Packets

Please assemble the nomination package in the following order. These instructions parallel those available at www.asee.org. Nominating a faculty member for an award implies that the nominee has been informed and consents to the nomination and conditions of the award.

Do not submit to ASEE headquarters or through their web page.

Submit nominations electronically following the procedure described below to the ASEE ChE Division Awards Co-Chairs, Valerie Young and Jason Keith, at youngv@ohio.edu by January 15, 2013.

Paper submissions will not be accepted.

Nominations should be sent as ONE Word or PDF file. The document should have sections for nominee information, citation, rationale, curriculum vitae, additional information as required for that award, and letters of support. It is the nominator's responsibility to assemble all of the pertinent information into ONE electronic document that committee members can easily read.

1. Nominee Information – list the information found on the general ASEE awards form that may be found http://www.asee.org/members/awards/nomForm_paper.cfm
2. Include a 100-word maximum Citation, which will be used if the nominee wins the award.
3. Include a 700-word maximum description of the Rationale for the Nomination.

4. Include a Curriculum Vitae containing the following information: Degrees earned (university and granting dates); other postgraduate study; record of positions held; publications, including all books, published papers and articles; ASEE activities and offices held; awards, honors and inventions, etc.
5. Include Other Supporting Information as required for that particular award. Please see the Chemical Engineering Division web site for details on particular award criteria.
6. Include a maximum of 8 Letters of Support for the nomination. These letters may be from peers, students, and/or former students as appropriate to the award.

Any nominee for an award may be re-nominated using the original nomination package for one additional year only by sending an email to the Awards Chair along with the electronic award nomination. However, reference letters should be updated for the year of the renewed application. After the re-nomination a complete new nomination is required.

Submit the entire nomination as ONE electronic file to youngv@ohio.edu by January 15, 2013. General, procedural or other questions about the awards should be directed to Valerie Young at youngv@ohio.edu or 740-593-1496.

Contact the Awards Committee Co-Chair, Valerie Young (youngv@ohio.edu) or consult the Division website (<http://www.asee-ched.org>) for more information.

Announcing ASEE ChE Division Awards for 2013

Send one file to: Valerie Young, ASEE ChE Division Awards Co-Chair, youngv@ohio.edu

The Chemstations Lectureship Award

This award, sponsored by Chemstations, is presented to a distinguished engineering educator to recognize and to encourage outstanding achievement in an important field of fundamental chemical engineering theory or practice. The individual shall demonstrate achievement through the formulation of fundamental theory or principles, improvements of lasting influence to chemical engineering education with books and/or articles, and the demonstration of success as a teacher. In addition, evidence of the ability to conduct original, sound, and productive research, and an interest in the progression of chemical engineering through participation in professional and educational societies shall be demonstrated. The recipient presents a lecture at the ASEE summer school. The award consists of a \$3,000 honorarium, \$500 travel allowance, and a commemorative plaque presented at the Chemical Engineering Division Banquet of the ASEE Annual Conference.

CACHE Award for Excellence in Computing in Chemical Engineering Education

This award, sponsored by the CACHE Corporation, is presented for significant contributions in the development of computer aids for chemical engineering education. The award consists of a \$1,000 honorarium and a commemorative plaque presented at the Chemical Engineering Division Banquet of the ASEE Annual Conference.

Ray W. Fahien Award

This award is given in honor of Ray Fahien, who was editor of Chemical Engineering Education from 1967-1995, and who was effectively the founding father of the journal, establishing it as a premier publication vehicle in the field of chemical engineering education. Professor Fahien selflessly gave his time and talents to advance pedagogical scholarship, particularly in the careers of young educators, through his dedication to the journal and the profession. The award is given annually to an educator who has shown evidence of vision and contribution to chemical engineering education, consists of a \$1,500 honorarium and a commemorative plaque presented at the Chemical Engineering Division Banquet of the ASEE Annual Conference. See the Division web site for more details on the award criteria. Educators who have been faculty members for not more than ten years as of July 1st in the year of the award are eligible.

Lifetime Achievement Award in Chemical Engineering Pedagogy

This award will normally be given for lifetime achievement, recognizing a sustained career of contributions to pedagogical practice, scholarship, and/or mentoring that not only caused innovative and substantial changes, but also inspired other educators to new behaviors that benefit students in Chemical Engineering. The award will be presented on an as-merited basis, not necessarily annually. Acceptance of the award implies the obligation to attend the Chemical Engineering Division Awards Banquet at the ASEE Annual Conference.

The following do not require a formal nomination packet:

William H. Corcoran Award

This award, sponsored by Eastman Chemical Corporation, is presented each year to the author of the most outstanding article published in Chemical Engineering Education. Nominations are not accepted. All published papers in a calendar year are automatically considered. The award consists of a \$1500 honorarium (per paper) and a commemorative plaque presented at the Chemical Engineering Division Banquet of the ASEE Annual Conference.

Best Poster Award

The Best Poster Award is presented for the most outstanding Chemical Engineering Division poster presentation at the ASEE Annual Conference. Nominations are not accepted. Papers must be presented at the chemical engineering division poster session to be considered. The award consists of a commemorative plaque presented at the Chemical Engineering Division Banquet of the ASEE Annual Conference.

Joseph J. Martin Award

The Joseph J. Martin Award is presented for the most outstanding Chemical Engineering Division paper presented at the ASEE Annual Conference. Nominations are not accepted. All papers presented that also appear in the conference proceedings are automatically considered. The award consists of a commemorative plaque presented at the Chemical Engineering Division Banquet of the ASEE Annual Conference.

A condition of receiving most of the above awards is attendance at the Chemical Engineering Division banquet

Nomination Deadline: January 15, 2013 For more information on ChE Division awards, see <http://www.asee-ched.org/>

Inviting Mentoring Grant Applications for 2012

Send one file to: Valerie Young, ASEE ChE Division Awards Co-Chair, youngv@ohio.edu

ChE Division Graduate Student "Future Faculty" Grant

All current graduate students in a chemical engineering or related program are eligible, and they must be nominated by a faculty member who is a member of ASEE. There will be at most one grant per year to subsidize travel to the ASEE Annual Conference. This grant is intended to build upon the existing ASEE "Bring-A-Student" program. Preference will be given to first-time attendees who have coauthored a paper and will be giving an oral or poster presentation at the ASEE Annual Conference. The nomination consists of the student's resume, a one-page letter of support from the faculty member, and the abstract of any ASEE talks with the student as co-author. Nominations are due by October 31st.

Applications will be reviewed by a committee consisting of the awards chairs and directors. If there is a conflict of interest, the directors will identify another member of the committee. Grants will be announced about two weeks after the paper acceptance deadline. The amount of the grant is \$500 and will include a ticket to the ChE Division Banquet. A condition of the grant is that the grant winner attend the meeting and present their paper. The grant will be presented at the ChE Division Banquet. The grant winner will be provided with a ChE Division mentor (an individual determined by the ASEE CHED executive committee) other than their nominating faculty mentor who will meet with the grant winner for both formal and informal interactions during the meeting.

ChE Division "Engineering Education" Mentoring Grant

All chemical engineering or chemistry faculty who have not attended an ASEE Annual Conference in the past five years are eligible for this grant. More than one grant may be given annually. A faculty member may apply for this grant by the last day of February. The application consists of a curriculum vitae and a maximum one-page statement of interests in educational scholarship.

Applications will be reviewed by a committee consisting of the awards chairs and directors. If there is a conflict of interest, the directors will identify another member of the committee.

The grant will be a ticket to the ChE Division Banquet. The grant winner(s) will be provided with a ChE Division mentor (an individual determined by the ASEE CHED executive committee) who will meet with the grant winner for both formal and informal interactions during the meeting.

ChE Division Mentoring and Travel Grant for New Attendees

All chemical engineering or chemistry faculty who have not attended an ASEE Annual Conference are eligible. There will be at most two grants per year. A faculty member may apply for this grant by the end of October to attend the following years conference. The faculty member must have submitted an abstract for that conference. The application consists of a curriculum vitae, a maximum one-page statement of interests in educational scholarship and a copy of any submitted abstracts. The faculty member may or may not be collaborating with other faculty who are active in ASEE.

Applications will be reviewed by a committee consisting of the awards chairs and directors. If there is a conflict of interest, the directors will identify another member of the committee. The amount of the grant is \$400 and will include a ticket to the ChE Division Banquet. A condition of the grant is that the grant winner attend the meeting and present their paper. The grant will be presented at the ChE Division Banquet. The grant winner(s) will be provided with a ChE Division mentor (an individual determined by the ASEE CHED executive committee) who will meet with the grant winner for both formal and informal interactions during the meeting.

For information on national and other awards, visit the [ASEE awards page](http://www.asee.org/member-resources/awards) at <http://www.asee.org/member-resources/awards>

A condition of receiving most of the above awards is attendance at the Chemical Engineering Division banquet at the 2013 ASEE Meeting in Atlanta, GA June 23-26.

Application Deadline: October 31, 2012 For more information on ChE Division awards, see <http://www.asee-ched.org/>

CALL for PAPERS!

2013 ASEE Annual Conference & Exposition

Atlanta, Georgia

June 23-26, 2013



The Chemical Engineering Division of the ASEE, which is dedicated to the promotion and improvement of Chemical Engineering Education, invites papers on all topics relating to the education of chemical engineers. This includes topics relating to K-12, undergraduate and graduate courses and activities, as well as relevant faculty development and community outreach activities. In addition, suggestions for workshops and sessions are welcome. Current topics of interest include, but are not limited to:

- Effective use of technology and simulation in the ChE courses
- ABET – addressing safety and contemporary issues
- Unit Ops Lab Bazaar Poster Session
- Learning outcomes and assessment
- Teaching communication, ethics, and professional skills to ChE students
- Outreach activities: from K-12 to community colleges to graduate school
- Strategies and goals for advisors
- Incorporating research topics into ChE classes
- Elective courses in ChE
- All other topics related to Chemical Engineering Education are WELCOME!

Because of the well-received response and attendance of the 2012 “Open Mic” session, a similar session will be planned at the 2013 conference. The topic will be announced shortly. Additionally, the Chemical Engineering Division is exploring co-sponsoring a session focused on sustainability education. Suggestions on this topic are encouraged!

Abstracts should be up to one (1) page in length and should clearly address an aspect of Chemical Engineering Education. Since abstracts are reviewed using a double-blind process, please do not include the names of authors or institutions anywhere in the abstract or draft paper. At the end of your abstract, please state if you would particularly like your paper to be in a regular session or a poster session. Abstracts will be reviewed, and if accepted, authors are then invited to complete full papers for further review. Please note that papers describing ongoing work (“works-in-progress”) are particularly welcome and will be targeted for a poster session.

The Chemical Engineering Division is a “publish-to-present” division: to present at the conference, you must have your paper accepted for publication and have at least one author participate in the peer review. For updates and information regarding deadlines, please see the ASEE 2013 Call for Papers page at: <http://www.asee.org/conferences-and-events/conferences/annual-conference/2013/program-schedule/call-for-papers>.

For more information, please contact 2013 ASEE ChED Program Chair Daniel Lepek (The Cooper Union) at lepek@cooper.edu.

Submission open now through September 21, 2012.

Link to Monolith: https://www.asee.org/public/person_sessions/new

Community Announcements

Call for papers: Abstraction submission for the **9th World Congress of Chemical Engineering (WCCE 9)** is now open. WCCE 9 will be held in Seoul, Korea from August 18 to 23, 2013. Suggested Topics include:

- Fundamentals in chemical engineering
- Sustainable development for the future society
- Research based on emerging technologies
- Progress in current chemical technologies
- Promotion of university-industry cooperation
- Chemical Engineering Education

Details can be found at <http://www.wcce9.org/>.

Dr. Hossein Toghiani of Mississippi State University has been named the Thomas B. Nusz Endowed Professor in recognition of his accomplishments in teaching, research, and service. Toghiani's teaching excellence has led to his induction into the Bagley College of Engineering Academy of Distinguished Teachers in 2007. His research in materials and energy engineering has resulted in significant levels of external funding, graduate student supervision, and over 90 peer-reviewed publications. Dr. Toghiani is active in professional service as the advisor for the National Organization of Black Chemists and Chemical Engineers (NOBCChE) and in organizing sessions for the American Institute of Chemical Engineers (AIChE).

The second edition of **Milo Koretsky's textbook, Engineering and Chemical Thermodynamics**, will be published by Wiley in December 2012. The book is intended for undergraduate ChemE thermo courses and emphasizes conceptual understanding. It relates macroscopic property behavior to molecular phenomena wherever possible. The new edition includes expanded coverage of the second law and of phase equilibria, and has many new end-of-chapter problems. To order an exam copy, contact your local Wiley representative. If you don't know who that is, you can look them up here: <http://professor.wiley.com/CGI-BIN/LANSAWEB?PROCFUN+PROF1+PRFFN15>.

Just published: **Bruce A. Finlayson, Introduction to Chemical Engineering Computing** (2nd ed., Wiley, 2012). Solve chemical engineering problems using commercial programs. Version 7.3 of AspenPlus allows easy reference to the NIST database for testing thermodynamic models before simulating a process. There are twice as many problems, especially in the energy field. Version 4.2a of Comsol Multiphysics is used for transport problems, with more problems in microfluidics. Some numerical analysis is included. See www.chemecomp.com for detailed information and instructor aids. \$49.95 on Amazon, \$59.95 from Wiley.

The Center for Advanced Process Decision-making at Carnegie Mellon University will offer a seven-day course entitled, **Optimization Modeling, Conceptual Design and Integrated Process Operations**, on May 9-15, 2013. This course is taught by **Professors Biegler, Grossmann, Sahinidis, Sirola and Ydstie**, and is organized in seven modules that can be taken altogether or in subsets. Topics include nonlinear, discrete and global optimization, conceptual design, and integrated process planning, scheduling and control. For information see: <http://capd.cheme.cmu.edu/shortcourse/index.html>

Dr. Michael E. Hanyak has self-published two new textbooks that support a team-oriented and problem-based-learning environment for the introductory course on material and energy balances. They are "**Companion in Chemical Engineering - An Instructional Supplement**" (www.createpace.com/3574827) and "**Chemical Process Simulation and the Aspen HYSYS Software**" (www.createpace.com/3655451). The first book presents a novel application of a problem solving strategy that enhances students' higher-order thinking skills of analysis, synthesis, and evaluation. The second book is a self-paced instructional document that teaches students how to use effectively a process simulator.

Dr. David L. Silverstein at the University of Kentucky has been promoted to Full Professor of Chemical and Materials Engineering. Additionally, he has been appointed as the Director of the Paducah Extended Campus Programs. The Paducah programs are 4-year undergraduate programs in mechanical engineering and chemical engineering offered onsite in Paducah, KY in collaboration with their partner institutions (Murray State University and West Kentucky Community and Technical College), culminating in a University of Kentucky Bachelor of Science degree.

Community Announcements

"Motivating and Rewarding University Teachers to improve Student Learning: a guide for faculty and administrators" by **Don Woods** has recently been published by City University of Hong Kong Press, 344 pages. A review by Roger Moore, St. Thomas University, says "This is an outstanding book by a Master Teacher .. He underscores two main themes, ...we can and should improve student learning, and.. all faculty should do research. The book is structured around the five principles of objective and scientific assessment, a seven-step process for intrinsic motivation... This book is a tour de force. Read it." (Spring 2012 "Newsletter of the Society for Teaching and Learning in Higher Education"). Amazon.com is \$38 with a kindle edition at \$24. The Preface and Table of Contents can be viewed from the web. <http://goo.gl/9w4vH>

The University of Kentucky Extended Campus Programs in Paducah welcomes their newest Chemical Engineering faculty member, **Dr. Derek Englert**. Dr. Englert completed his undergraduate degree in chemical engineering at the University of Mississippi and his PhD at Texas A&M in the area of microfluidics for investigating bacterial phenomena (chemotaxis, biofilm formation, and infection). His previous appointment was as a postdoctoral scholar at the University of Mississippi with a focus on teaching and intellectual property management.

Interested in helping your students learn chemical engineering concepts and not just number crunching skills? The creators of the **AIChE Education Division Concept Warehouse** are available to offer a limited number of workshops on your campus or at a site in your area site to serve multiple institutions at no cost to the host. The workshop will teach proven methods of teaching students concepts in STEM courses and offer resources to apply these methods to chemical engineering core courses. If interested, please contact Milo Koretsky at beta@cw.edudiv.org.

Stephanie Farrell, Rowan University was elected to the ASEE Board of Directors as Vice President, Member Affairs.

In October 2011, the School of Chemical Engineering at Purdue celebrated 100 years of its founding. Two history books were published to mark the occasion. Professor **Rakesh Agrawal** received the 2011 National Medal of Technology and Innovation from President Obama. Professor **Delgass** will receive the R.H. Wilhelm Award, Professor **Reklaitis** will receive the Van Antwerpen Award, and Professor **Lister** will receive the Thomas Baron Award, all at the 2012 AIChE annual meeting.

Dr. **Santanu Kundu** has joined the Dave C. Swalm School of Chemical Engineering at Mississippi State University as an Assistant Professor. He received his B.E. degree from Jadavpur University, India and his Ph.D. degree from Clemson University, both degrees in Chemical Engineering. Before joining Mississippi State, he was a Postdoctoral Research Associate at the Polymers Division of National Institute of Standards and Technology (NIST) and at the Polymer Science and Engineering Department of the University of Massachusetts-Amherst. Dr. Kundu's research interest is in the area of soft materials. He is interested in investigating the processing-structure-property relationships for various polymeric materials, particularly those of biological origin. He will study how these polymers form in various microorganisms, interact with complex interfaces, deform under stress, and can be processed into useful products.

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