

ASEE Chemical Engineering Division Newsletter



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CALL FOR NOMINATIONS

Page 7-9: Please nominate a deserving colleague for a 2012 award! Instructions provided at <http://www.asee-ched.org/>

CALL FOR PAPERS

Page 10: ASEE will be in San Antonio, TX June 2012. Program chair is Margot Vigeant mviceant@bucknell.edu. Abstract deadline is October 7th - Special sessions are being organized. Submit via asee.org!

COMMUNITY ANNOUNCEMENTS

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A Message from the Chair

Dear Colleagues:

Welcome to a new academic year! As we look back on summer 2011, we remember a very successful conference in beautiful Vancouver, BC. Many thanks to our presenters and session chairs for choosing CHED sessions over the outdoor temptations that Vancouver offers. Our sessions covered a wide variety of exciting topics, and we introduced a new panel session format in which speakers gave a short joint presentation followed by interactive discussion. This format will be back by popular demand in 2012. Many thanks to Adrienne Minerick for service as Program Chair and to Ryan Anderson for his work as Local Arrangements Liaison.

I would also like to thank our 2010-2011 officers for their service to the Chemical Engineering Division: Margot Vigeant is the outgoing Chair, and Laura Ford is the outgoing Secretary-Treasurer. But they are back already to serve the CHED again! Margot is the current Programming Chair, and Laura will serve another term as Secretary-Treasurer.

The 2012 Chemical Engineering Summer School will be held at the campus of the University of Maine. The week-long event is held every five years, and it offers interactive workshops that focus on teaching skills, course content, assessment, design and laboratory topics. Summer School is a family-friendly event and a variety of family-oriented activities will be offered. Each Chemical Engineering Department can nominate one participant who will receive funding for local expenses.

The Chemical Engineering Division Executive Committee Meeting will be held at the Annual AIChE Meeting in Minneapolis. The meeting is at 11:00 AM on Monday, October 17 in Directors Row 3 at the Hilton. All CHED members who are

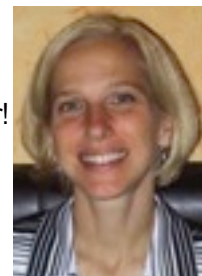
interested in being actively involved in the Division are encouraged to attend.

The Chemical Engineering Division recognizes outstanding contributions of its members through several Division Awards. We are introducing three new awards this year: The Graduate Student "Future Faculty" Grant, the "Engineering Education" Mentoring Grant, and the Mentoring and Travel Grant for New Attendees. These three new awards aim to attract and involve new members to our Division. Please take a moment to review the description of all awards in the solicitation in this issue, and consider nominating a deserving colleague. The deadline for award nominations is January 15th, 2012. We are grateful for the support from our award sponsors, CACHE Corporation, Chemstations, Inc. and Eastman Chemical Corporation.

Don't miss the call for papers for the 2012 Annual Conference and Exposition in San Antonio on June 10-13, 2012. Please submit your abstract soon and plan to attend the meeting. I look forward to seeing you Deep in the Heart of Texas!

We are trying something new with this issue of the newsletter: announcements from CHED members. We encourage members to submit anything of interest to the CHED community such as a workshop, book, or faculty opening. In addition, members are always happy to hear about awards, tenures, promotions, and new jobs. Announcements will be solicited by e-mail a few weeks prior to the issue of each newsletter.

Have a great semester!
Stephanie Farrell,
Rowan University



2012 SUMMER SCHOOL

University of Maine in Orono, Maine

July 21-27, 2012

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



Plans continue for the next Chemical Engineering Summer School to be held at the University of Maine in Orono, Maine from July 21-27, 2012. Department chairs will begin nominating attendees after the AIChE meeting. Each chemical engineering program will be permitted to nominate one attendee, preferably a newer faculty member. The program is responsible for transportation of participants to the venue. All on-site expenses will be covered for these attendees. Alternates and additional attendees may be nominated. Nomination of additional attendees from a program will indicate a commitment to pay for on-site expenses as well as transportation. The on-site expenses for additional attendees may be covered depending on available funds. The deadline for nominations will be December 1, 2011.

Accommodations will be in dormitories with suite-style rooms. Hotel options will also be available, but the closest one is a little over a mile from the campus. Participants choosing to stay in a hotel will be responsible for their own transportation and the difference in cost between the hotel and the dormitory. Family activities will also be planned, so this is an opportunity to consider making Maine your family vacation spot for the summer.

Meeting highlights will include a one-day teaching workshop by Rich Felder and Rebecca Brent on Saturday, July 21, 2012. There will be an industrial panel, NSF-sponsored sessions, and the Chemstations Lectureship presentation. A sample of workshop sessions includes: new faculty career development; desktop modules for learning ChE concepts; safety in ChE education; green engineering; bioengineering; freshman engineering design projects; integrating active learning in the curriculum; use of YouTube, screencasts, and other media; advising; and assessment.

The University of Maine is in Orono, just a few miles from Bangor and its airport. It is about one hour or so from Acadia National Park and Bar Harbor. There are recreational opportunities on campus for participants and families, including hiking/biking/running trails and canoeing/kayaking on the Stillwater River. Canoes and kayaks can be rented on campus. Maine is a wonderful vacation spot, and it is usually quite comfortable in the summer. Summer highs average around 80°F, with lows in the high 50s.

Here are some links to activities in the vicinity of the University of Maine:

http://www.bangormaine.gov/vb_recreation.php

http://www.bangormaine.gov/cs_parksrec.php

<http://www.bangorinfo.com/parks.html>

<http://www.sunkhaze.org/>

<http://www.nps.gov/acad/>

<http://www.acadia.net/anp/>

<http://www.acadia.national-park.com/>

<http://www.mainediscoverymuseum.org/>

<http://www.baxterstateparkauthority.com/>

http://en.wikipedia.org/wiki/Mount_Katahdin

http://www.maine.gov/cgi-bin/online/doc/parksearch/search_name.pl?state_park=20&historic_site=&public_reserved_land=&shared_use_trails=&option=search



For further information, please contact Joseph A. Shaeiwitz, West Virginia University, joseph.shaeiwitz@mail.wvu.edu.

2011 Winner of the
CHEMICAL ENGINEERING DIVISION LECTURESHIP AWARD
sponsored by Chemstations

Richard D. Noble

Alfred T. and Betty E. Look Professor
Department of Chemical and Biological Engineering
University of Colorado Boulder

Success from Failure



Research presentations at technical meetings usually present the results in a very logical and sequential manner. In fact, this is rarely the case in practice. The usual sequence is much more similar to a quantum effect. A researcher (normally a grad student or postdoc) works on a problem for some period of time with little or no new results. Then, something new and/or unexpected occurs which requires a jump in understanding to resolve. This “quantum leap” can take place over shorter time intervals (weeks) or longer ones (years). This presentation will describe two areas of research where the presenter was able to take the limitations of previous research and find a path to “success”.

Catalytic membrane reactors are a process configuration where the reactor walls are a semi-permeable membrane instead of a solid impermeable surface. This concept allows reactants or products to be transported across the membrane as well as axially along the catalysis bed. There is the potential for increases in conversion and/or yield compared to conventional reactors. Our initial attempt to implement this configuration was for the partial oxidation of methane. Our results were only marginally better and this was primarily due to the fact that the pore size of the membrane was very large (5 nm) compared to the size of the molecules in the system (< 0.5 nm). This led us to start a program to prepare zeolite membranes where the pore size was now on the same order as the molecules in the process. We have now been very successful in preparing zeolite membranes to separate CO₂ from CH₄ for natural gas processing.

Liquid membranes have some advantages compared to polymer materials. The diffusion coefficient of the solutes is higher in a liquid, the solubility of the solutes can be varied depending on the liquid, and they are easy to prepare. One can also implement facilitated transport with a mobile carrier to enhance both the flux and selectivity. But, there are two drawbacks that have stopped any actual use of this type of membrane. The liquid is volatile and will disappear after a short period of time. Also, the liquid can be displaced from the pores of the support by a small pressure difference. I stopped research on this approach for many years until I learned about ionic liquids. These materials are organic salts that are liquid at room temperature. As a neat salt, they have a negligible vapor pressure which removes one of the drawbacks of using liquids. They also can be prepared with double bonds and thus made into polymer forms which eliminate the second drawback. We have prepared ionic liquids in different morphologies and demonstrated their ability to separate CO₂ from N₂ with productivities two orders of magnitude better than conventional polymer materials.

2011 Winner of the
CHEMICAL ENGINEERING DIVISION LECTURESHIP AWARD
sponsored by Chemstations

Professor Richard D. Noble cont.

Biographical Sketch

Dr. RICHARD D. NOBLE is the Alfred T. and Betty E. Look Professor of Chemical Engineering and Co-Director of the NSF Membrane Applied Science and Technology (MAST) Center at the University of Colorado. He received his B.E. degree (1968) and M.S. degree (1969) in chemical engineering from Stevens Institute of Technology. His PhD degree in chemical engineering was awarded in 1976 from the University of California, Davis. His prior technical positions were at the University of Wyoming (1976-1981) and the National Bureau of Standards (1981-1987). He is an internationally recognized leader in the use of novel membrane and thin film materials, including zeolites and ionic liquids, for chemical separations. His research in each area has been separately highlighted in Chemical & Engineering News recently.

He has received thirteen teaching awards and has thirty five research publications with undergraduate students as authors. His four service awards include the AIChE Service to Society award (2005) and ten research awards including CU Inventor of the Year (2008), Chair d'Excellence Pierre de Fermat, Paul Sabatier University, Toulouse, France (2010) and the AIChE Institute Excellence in Industrial Gas Technology award (2010). He is on the editorial board of three separations related technical journals. He has been chair of the AIChE Separations Division, ACS Separations Science and Technology subdivision, as well as the Gordon Research Conferences on Separation and Purification, and Membranes: Materials & Processes. He currently has over 25 patents, more than 290 research publications, and 11 textbooks and monographs.

Research Interests

We are studying the use of ionic liquids for gas separations. We plan to evaluate various ionic liquids and complexation chemistry so that we can tailor the material properties to the feed mixture being separated. Various configurations, including composite polymer/IL structures, as well as the incorporation of complexation chemistry and zeolites, are being studied. Liquid crystals can be organized to form films with a nanostructured polymer network. These structures can be cross-linked to produce stable films that can be used as membranes. These membranes are being evaluated for nanofiltration applications. We are also preparing film for use as composite structures with ionic liquids. This work is being done in collaboration with Professor Doug Gin.

Professor John Falconer and I have a research group that synthesizes several different zeolite membranes on the interior of microporous alumina and stainless steel tubes. We use various characterization methods that we developed, to obtain qualitative and quantitative structural and property information. Gas, vapor, and pervaporation permeation studies are also being conducted to evaluate the performance of the membranes for various applications.

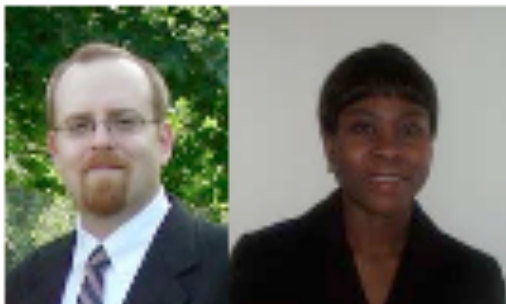
2011 Award Recipients

William H. Corcoran Award

Sponsored by Eastman Chemical Corporation

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

Dr. David Silverstein and **Dr. Gifty Osei-Prempeh** of the University of Kentucky are recognized for their paper entitled *Making a Chemical Process Control Course an Inductive and Deductive Learning Experience*.



Joseph J. Martin Award

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

Drs. Lisa Bullard (North Carolina State University), **Don Visco** (The University of Akron), **David Silverstein** (University of Kentucky), and **Jason Keith** (Michigan Technological University), are recognized for their paper, *Strategies for Creating and Sustaining a Departmental Culture*.



Ray W. Fahien Award

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

Dr. Adrienne R. Minerick

Michigan Technological University

Dr. Adrienne R. Minerick is an Associate Professor of Chemical Engineering at Michigan Technological University. She received her BS in Chemical Engineering from Michigan Tech and her M.S. and Ph.D. in Chemical Engineering from University of Notre Dame. Adrienne was an Assistant, then Associate Professor at Mississippi State for 6.5 years before moving back to her alma mater in 2010. She has won numerous awards for both teaching and research, including a NSF CAREER



Award, an ASEE Southern Section New Faculty Research Award, twice winner of the Thomas C. Evans Instructional Paper Award and three other paper awards. At Mississippi State, she was inducted into the Academy of Distinguished Teachers and earned the 2009 Engineering Educator Award. Adrienne's research interests are in nonlinear electrokinetics in microdevices with applications in medical diagnostics.

CACHE Award

Sponsored by the CACHE Corporation

(for contributions to computing in chemical engineering)

Dr. Michael Hanyak, Bucknell University

Dr. Michael E. Hanyak, Jr. served as a Professor of Chemical Engineering at Bucknell University from 1974 until his retirement in 2010. His teaching and research interests included computer-aided engineering and design, instructional design, pedagogical software tools, and the electronic classroom. He has developed a thermodynamic software system (BUTS), a linear equation system solver (BLESS), a formative assessment system for teamwork (TEAM 360), and an electronic learning system for engineering problem solving (eLEAPS). He is currently publishing Companion in Chemical Engineering (CinChE)—An Instructional Supplement and Chemical Process Simulation and the AspenTech HYSYS Software, two manuscripts that support a problem-based learning environment for the first course in chemical engineering. Professor Hanyak received the Lindback Award for Distinguished Teaching from Bucknell University in 2002.



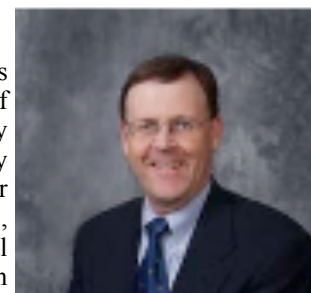
Lifetime Achievement Award

(for sustained career of pedagogical scholarship)

Dr. Ronald Miller

Colorado School of Mines

Dr. Ronald L. Miller is recognized for three decades of helping others become scholarly teachers. He is internationally recognized not only for pedagogical scholarship, exemplified by 155 pedagogical publications, but also through over 100 workshops in the United States and abroad, focusing on teaching pedagogy, assessment processes, and education research techniques to colleagues. Ron has worked to help others become scholarly teachers through his pioneering work in engineering education outcomes assessment, his work in measuring and repairing robust student misconceptions in



2011 Award Recipients, cont. & Other Notable Awards

Best Paper, PIC V

Donald Visco, Tennessee Technological University (now Akron University); **Dirk Schaefer**, Georgia Institute of Technology; **Tristan Utschig**, Georgia Institute of Technology; **J. P. Mohsen**, University of Louisville; **Norman Fortenberry**, American Society for Engineering Education (formerly at National Academy of Engineering); **Michael Prince**, Bucknell University; and **Cynthia Finelli**, University of Michigan

PAPER: "Preparing for Participation in SPEED: An ASEE Initiative for a Nationally Recognized Development Program for Engineering Educators"
Session: 1422

Midwest Section Outstanding Paper Award, First Place

Keith L. Hohn
Kansas State University

PAPER: "Incorporating Creativity into a Cap-stone Engineering Design Course"

Future Faculty Grant

Future Faculty Grant:
Debra Gilbuena, Oregon State University



Mentoring and Travel Grant

Mentoring and Travel Grant:
Matthew Liberatore, Colorado School of Mines



Mentoring Grant

Mentoring Grant:
Daniel Lepek, Cooper Union



Fellow Grade Membership - consider nominating a colleague!

The Fellow Grade of Membership is conferred upon active members of ASEE, 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 2012 meeting in San Antonio, TX are due by January 15, 2012, with the winners notified in March 2012. 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, 2012.

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, 2012. 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-chd.org>) for more information.

Announcing ASEE ChE Division Awards for 2012

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 in Chemical Engineering Pedagogical Scholarship

This award will normally be given for lifetime achievement, recognizing a sustained career of pedagogical scholarship that not only caused innovative and substantial changes, but also inspired younger 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 at the 2012 ASEE Meeting in San Antonio, TX June 10-13.

Nomination Deadline: January 15, 2012 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 year's 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 2012 ASEE Meeting in San Antonio, TX June 10-13.

Application Deadline: October 31, 2011 For more information on ChE Division awards, see <http://www.asee-chd.org/>

CALL for PAPERS!

2012 ASEE Annual Meeting June 10 - 13, 2012
San Antonio, TX



Greetings Colleagues -

Please consider submitting an abstract and paper to the ASEE Conference, to be held this coming year in San Antonio, TX. See official Call for Papers below. Please note this year that we invite you to let us know at the bottom of your abstract a) if your work would best fit in a regular session b) if you would welcome being in a "discussion" session c) if your work would best fit the poster session (targeting, but not limited to, work-in-progress) or d) you don't care.

Also, much thanks to those who have volunteered to review abstracts, you will be hearing from me soon! If you would like to join the ranks of the brave abstract reviewers AND/OR if you would like to jump on the bandwagon to organize and moderate one of the proposed sessions, please let me know (mvigeant@bucknell.edu).

Encourage your new colleagues and graduate students to submit abstracts, then nominate them for a mentoring, first-time attendee, or graduate student award! (see: <http://www.engr.uky.edu/~aseeched/>)

Abstracts due this Friday 10/7!

The Chemical Engineering Division of the ASEE invites papers on all topics relating to the education of chemical engineers. This includes K-12, undergraduate, and graduate courses and activities, as well as relevant faculty development and community outreach. In particular, we welcome papers on:

- Innovative and technology enhanced pedagogy
- Hands-on and laboratory demonstrations (actual demos strongly encouraged)
- Integrating safety and addressing ABET
- Outreach and first-year ChemE
- Best practices for TA and GTAs (graduate student presentation or poster session)
- International experiences – What do our students need for a global marketplace?
- Making your life better – departmental culture, interaction, and work/life balance
- New directions in core ChemE courses
- Inter- and multidisciplinary projects, courses, and designs and how to assess them
- Other topics of interest to ChemE educators welcome!

Because of the extremely positive response at the 2011 meeting, we plan on several sessions as presentation/discussion sessions, where all speakers use a joint presentation out of which each has ~5 slides and 10 minutes, followed by extended group / audience discussion at the end.

Papers describing ongoing work are welcome and will be particularly targeted for a poster session. At the end of your abstract, please indicate if you would particularly like your paper being in a) a regular session b) a presentation / discussion session or c) a poster session or d) you don't care what sort of session it is.

Abstracts will be reviewed and then if accepted, authors are invited to complete full papers for further review. Abstracts should be sufficient to allow reviewers to judge the quality of the data, ideas, and conclusions in the final paper, ideally 300-1000 words.

Questions? Contact program chair Margot Vigeant at mvigeant@bucknell.edu.

Submission open now through October 7.

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

Community Announcements

CAPD Short Course: The short-course "Optimization Modeling and Integrated Process Operations" at Carnegie Mellon is scheduled next year for May 10-16, 2012. The course is organized in two parts (6 modules):

- I. Optimization Modeling (Thursday through Saturday, May 10-12) focuses on modeling and algorithms with applications to process optimization, process synthesis and molecular design:
- II. Integrated Process Operations (Monday through Wednesday, May 14-16) focuses on supply chain, planning, scheduling and process control.
- III. For information see: <http://capd.cheme.cmu.edu/shortcourse/index.html>

A team in Jeffrey Gray's lab at Johns Hopkins University has released **PyRosetta 2.011**. PyRosetta is a Python interface to Rosetta, a diverse library of tools for biomolecular modeling including protein and nucleic acid structure prediction, docking and design. PyRosetta 2.011 includes a molecular visualization interface to PyMOL, updated documentation, and a new set of commented and easy-to-follow sample scripts. An undergraduate/graduate-level tutorial workbook is available for learning basic scripting, manipulation of protein conformation, energy calculations, folding, docking, and design. Free to academics at <http://www.pyrosetta.org>.

Purdue Chemical Engineering Centennial: Purdue University Board of Trustees approved the founding of the School of Chemical Engineering on June 14, 1911. Thus, 2011 is the Centennial Celebration Year! Multiple activities are in progress: 12 Centennial seminars presented by School alumni from different walks of life throughout 2011; a main event during October 7-8, 2011; and publishing the book "100 Years of Chemical Engineering at Purdue University 1911-2011". For details of the celebration, please visit <https://engineering.purdue.edu/ChE/AboutUs/Centennial>.

In Memoriam - Professor Lyle Albright of Purdue (1921-2010): Lyle Albright, a beloved professor for generations of Purdue students, passed away in December 2010. He received his ChE degrees from University of Michigan: BS (1943), MS (1944), PhD (1950). He joined Purdue ChE in 1955 as Associate Professor, was promoted to Professor in 1958, and became Emeritus Professor in 1991, although he remained active. His scholarly contributions include 231 articles in archival journals and several books, including "Albright's Chemical Engineering Handbook," published in 2009.

Adjunct needed: An experienced chemical engineer with a M.S in chemical engineering or related field is needed who could teach a course in process design. Skills needed are knowledge of equipment operations, flow sheeting, economic analysis, process safety and environmental consideration. Send information to Prof. C.R. Nippert, Widener University, One university Place Chester PA19013-5702 or apply electronically to crnippert@mail.widener.edu. ChE 425 course description (FYI): Development of process design information and decisions for batch and continuous processes; estimation of fixed investment and product cost; optimum design of equipment and operations; bases for rules of thumb; computer simulation for equipment design and flowsheeting; economic analysis of projects, energy conservation; process safety and environmental considerations in design. This is a writing enriched course.

Jossey-Bass Faculty Development [<http://jbfacdev.wiley.com/pg/pages/view/60>] is proud to announce an innovative program of live online events this fall, designed to provide the pedagogical and practical strategies you need to make the greatest impact on your students' learning experience. From teaching techniques for new faculty to discipline-specific tools and tips, our expanded offerings give you flexible, economic, interactive options no matter how busy your schedule. You'll have access to the recorded version for a full six months after the live date, so you can benefit from the material when it's most convenient for you. Click here [<http://jbfacdev.wiley.com/pg/pages/view/61>] to learn more about our series, workshops, and conferences this fall.

Community Announcements

The **Bioengineering Educational Materials Bank** team is looking for beta testers. If you are interested in using problems in your core chemical engineering course that address biological applications, you can register up at (<http://www.bioemb.net>) for free access to the problems. We need faculty teaching Heat/Mass Transfer; Reactor Design & Kinetics; Process Dynamics & Control; Fluids; and Thermodynamics to serve as beta test sites. We also need faculty to serve as comparison test sites in the research study who do NOT want to include the problems in their course but are willing to administer a 50 minute test to their students. Stipends are \$500 for beta testers and \$200 for comparison sites. Semesters of interest include Fall 2011, Spring 2012 and Fall of 2012. If you would like further information about the beta/comparison testing, contact Claire Komives (claire.komives@sjsu.edu).

Don Woods' (Professor Emeritus, Chemical Engineering, McMaster University) book "**Motivating and Rewarding University Teachers to Improve Learning: a guide for faculty and administrators**" has just been published by the City University of Hong Kong Press. This 340 page book features intrinsic motivation and criteria for learning, research/scholarship and administration/service. Suggestions are given for effective learning and for the scholarship of teaching. Eight inventories are provided for improving and monitoring student learning.

The Department of Chemical Engineering at Rowan University congratulates **Mariano J. Savelski** on his promotion to full professor. Mariano joined the faculty at Rowan in 1999 after receiving his Ph.D. from the University of Oklahoma. His research and teaching interests are in optimizing processes for water and energy reduction; lean manufacturing in food, consumer products, and pharmaceutical industry; and developing renewable fuels from biomass.

Fuel Cell and Energy Modules at Mirror Site: The fuel cell and energy modules were developed as part of a multi-university collaboration led by Jason Keith. In concert with Keith's move to be director (department head) and Earnest W. Deavenport, Jr. Chair at Mississippi State University, these modules have been mirrored at the site: <http://www.che.msstate.edu/pdfs/h2ed/>. This site contains links to fuel cell modules (about four dozen in ChE, two dozen in ME, and a dozen in EE). There are also links to a dozen general energy modules and new modules in alternative energy will be developed in the future and posted at this new site. There are also supplements to the Felder & Rousseau material and energy balance and the Geankoplis transport process textbooks. The project has been supported by the Department of Chemical Engineering at Michigan Technological University, CACHE Corporation, U.S. Department of Energy, and the Bagley College of Engineering at Mississippi State University.

The National Postdoctoral Association's ADVANCE project has developed a new online resource, "[A Postdoc's Guide to Pregnancy and Maternity Leave.](#)" that may be of use to women postdoctoral scholars in your community. The guide provides general information on pregnancy and maternity leave for postdocs, including tips on keeping your research going, talking with your postdoctoral supervisor, Research Concerns for your Pregnancy; Maternity Leave and Federal Funding Guidelines; and Making a Maternity Research Plan. You can find it here: <http://www.nationalpostdoc.org/publications/563-maternity-guide>

CHEMICAL ENGINEERING DIVISION LEADERSHIP

Stephanie Farrell
Division Chair
farrell@rowan.edu

Michael Prudich
Division Chair Elect
prudich@ohio.edu

Margot Vigeant
Past Division Chair
mvigeant@bucknell.edu

Laura Ford
Secretary / Treasurer
laura-ford@utulsa.edu

Lisa Bullard
Director
lisa_bullard@ncsu.edu

Michael Prudich
Director
prudich@ohio.edu

Adrienne Minerick
Newsletter Editor
minerick@mtu.edu

David Silverstein
Webmaster
silverdl@engr.uky.edu

Allen Hersel
Membership Chair
hersela@trine.edu

Valerie Young
Co-Awards Chair
youngv@ohio.edu

Jason Keith
Co-Awards Chair
keith@che.msstate.edu

Stewart Slater
Publications Chair
slater@rowan.edu

Margot Vigeant
Program Chair
mvigeant@bucknell.edu

Mahbub Uddin
Local Arrangements
Liaison
mahbub@engr.trinity.edu