

ASEE Chemical Engineering Division Newsletter



Editor: Matthew Cooper (mecoope3@ncsu.edu), North Carolina State University

A Message from the Chair:



Lisa Bullard
North Carolina State
University



Last fall I got to see “the view from the other side.” When our daughter enrolled as a freshman at NC State, I attended parent orientation and tried not to embarrass her by asking too many questions or looking too... parental... during our campus tour. I thought I knew all about my university – at least, from the academic and advising side – but I realized as a parent that there’s a whole new realm of concerns for those entering freshmen and their parents: dorm life (will she get along with her roommate?), dining hall plans (10, 12, 14 meals per week or the unlimited pass?), campus security (“Don’t walk alone at night!”), and a myriad of other decisions to make. I experienced what each of our students’ families must feel as they entrust their children into our care – hoping that her advisor would be helpful and that her professors would be both competent and caring. As faculty we have the opportunity to impact students in a significant way in our roles as teachers and advisors – either positively or negatively. This year as you welcome new students into your classroom, know that behind each one of them is a parent who is grateful for the time and effort you invest in their student.

As a means to refresh and recharge our own teaching, there’s no better way than attending the ASEE Annual Conference and Exposition each June. This year’s event in Indianapolis

provided a wealth of information and innovative approaches through the sessions, plenary talks, and informal social interactions. Program Chair Mike Elsass and the session moderators did an outstanding job. We even got to view and celebrate the US World Cup soccer victory over Ghana in real time during the division banquet!

Looking ahead, it’s not too early to be thinking about what you might want to share at next year’s ASEE Conference and Exposition in Seattle, Washington on June 14-17, 2015. Submission of abstracts opened on September 9 and closes on October 19. Consider submitting a work in progress or a poster, get feedback on work that is in its early stages, or partner with someone who shares your interests. I appreciate all the time and effort invested by our outgoing Division Chair, David Dixon, as well as all of the officers and committee chairs. The activities of the division only happen as a result of the dedicated work of volunteers. Getting involved in the division is a great way to meet colleagues who share your passion for teaching.

Best wishes for a great semester!
Lisa Bullard, North Carolina State

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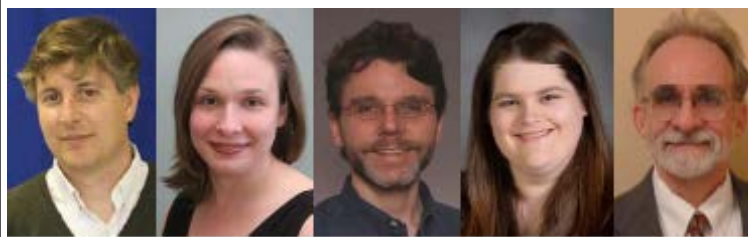
2013 ASEE Chemical Engineering Division Award Recipients



William H. Corcoran Award

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

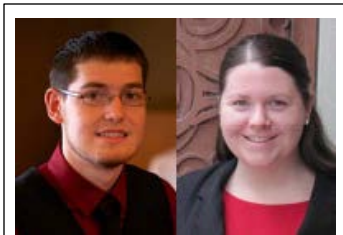
Drs. Michael Prince (Bucknell), Maura Borrego (Va. Tech), Charles Henderson (W. Michigan), Stephanie Cutler (Va. Tech) & Jeffrey Froyd (Texas A&M) are recognized for their paper "Use of Research-Based Instructional Strategies in Core ChE Courses."



Joseph J. Martin Award

for the best paper in the ChE Division at the previous
ASEE meeting:

Joel Versypt (Illinois Urbana-Champaign) and Dr. Ashlee Ford Versypt (MIT) are recognized for their paper "Mapping Rural Students' STEM Involvement: Case Studies of Chemical Engineering Undergraduate Enrollment in the States of Illinois and Kansas."



Mentoring and Travel Grant

for chemical engineering or chemistry faculty who have
not yet attended an ASEE Annual Conference:

Dr. Joshua Levinson (Lafayette College)

Lafayette is an undergraduate-only institution that places a strong emphasis on teaching. Dr. Levinson has a strong interest in educational scholarship, which serves to complement his discipline-specific research efforts and interest in Chemical Engineering pedagogy related to hands-on learning experiences and use of the "flipped" classroom.

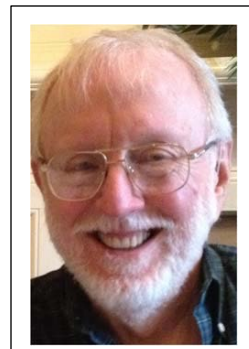


CACHE Award

for contributions to computing in chemical engineering:
Sponsored by the CACHE Computing Corporation

Dr. Jim Henry (Tennessee-Chattanooga) (Emeritus)

Jim Henry has had a career-long emphasis of teaching and using computer methods in chemical engineering. He is known for his innovation and commitment to developing remotely operated laboratory equipment at the Univ. of Tennessee-Chattanooga. The web interface has allowed students from schools around the US and the world to operate and collect data from unit operations and control system equipment on demand. He has collaborated with other schools and faculty to encourage the development of these capabilities.



Lifetime Achievement Award

for sustained career of pedagogical scholarship:

Dr. Morton Denn (City College of New York)

Morton Denn is the Albert Einstein Professor of Science and Engineering and Director of the Benjamin Levich Institute at the City College of New York. His 50-year career includes 18 years at the University of California, Berkeley, where he was the ChE Department Chair and Head of Materials Chemistry at the Lawrence Berkeley National Laboratory, and 17 years at the University of Delaware. Mort is the author of 7 chemical engineering texts and monographs, including the widely used *Process Fluid Mechanics* and, most recently, *Chemical Engineering: An Introduction*. He edited the *AIChE Journal* from 1985-1991 and the *Journal of Rheology* from 1995-2005. Mort's awards include AIChE's Warren K. Lewis Award for Chemical Engineering Education and the ASEE Chemical Engineering Lectureship, as well as numerous awards for research. He is a member of the National Academy of Engineering and the American Academy of Arts and Sciences.



Announcing 2015 ASEE ChE Division Awards!



Send one file to: Bernard Van Wie, ASEE ChE Division Awards Chair, bvanwie@wsu.edu

Chemstations Lectureship Award

This award is presented to a distinguished engineering educator to recognize and 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.

This will be the final year of funding from Chemstations - ASEE CHED thanks them for their eight years of generous support.

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.

Donald R. Woods Lifetime Achievement

Award in Chemical Engineering Pedagogy

This award is given in honor of Donald R. Woods, a renowned engineering educator and long-time faculty member at McMaster University. 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 awards do not require a formal nomination packet:

William H. Corcoran Award

This award is presented each year for 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. *This will be the final year of funding for this award from Eastman Chemical Corporation - ASEE CHED thanks them for their years of generous support.*

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.

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 2015 meeting in Seattle, WA are due by January 15, 2015, with the winners notified in March 2015.

Please consider nominating one of your faculty or a colleague at another school for an ASEE Chemical Engineering Division Award!

Award packets should be sent (as a single file) to:
Bernard Van Wie (bvanwie@wsu.edu) and
Joseph Menicucci (jmenicucci@gmail.com)
ASEE ChE Division Awards Chairs



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 Chairs by January 15, 2015.

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 at 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 bvanwie@wsu.edu and jmenicucci@gmail.com by January 15, 2015. General, procedural or other questions about the awards should be directed to these Awards Committee Chairs.

Contact the Awards Committee Chairs, Bernard Van Wie (bvanwie@wsu.edu) and Joseph Menicucci (jmenicucci@gmail.com) or consult the Division website (<http://www.asee-ched.org>) for more information.



Inviting Mentoring Grant Applications for 2015!

Send one file to: Bernard Van Wie (bvanwie@wsu.edu) and Joseph Menicucci (jmenicucci@gmail.com)

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 attends the meeting and presents 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.

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 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 coauthor. 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 attends the meeting and presents 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.

Application Deadline for Mentoring Grants is October 31, 2014!

- A condition of receiving most awards and mentoring grants is attendance at the Chemical Engineering Division banquet at the 2015 ASEE Annual Meeting in Seattle, WA June 14 – 17 2015.
- For more information on national and other awards, visit the ASEE awards page at <http://www.asee.org/member-resources/award>

CALL for PAPERS!

2015 ASEE Annual Meeting

June 14 – 17, 2015 in Seattle, WA



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 undergraduate and graduate courses, curriculum and activities, as well as relevant faculty development, K-12 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
- Learning outcomes, assessment and accreditation, including strategies for addressing the ABET safety requirement
- Teaching critical thinking, 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
- Diversity initiatives in ChE programs
- All other topics related to Chemical Engineering Education are WELCOME!

Due to popular demand we will once again have an “Open Mic” session, with the format and topic(s) to be announced at a later date.

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. Abstract submission will open on September 9, 2014 and will close on October 19, 2014. Author kits will be published shortly.

For more information, please contact 2015 ASEE ChED Program Chair Kevin Dahm (Rowan University) at dahm@rowan.edu.

**Abstract submission window opens September 9, 2014
and closes October 19, 2014!**

Community Announcements

Faculty Opening: Non-Tenure-Track

Position (Lehigh U.)

Primary responsibility for this Professor of Practice will be teaching Lehigh's two-semester capstone Process Design course. Interested candidates can find additional information at <http://www.lehigh.edu/~incheme/employment.html>

Two Faculty Openings: Tenure-Track Asst.

Prof. Positions (U. Florida)

Candidates with interest in all research areas of importance to chemical engineering will be considered. Interested candidates can find additional information at http://www.che.ufl.edu/PDF/ChE%20Fac%20Posting_web%20082514.pdf

Faculty Opening: Open Rank Tenure-Track

Position (U. Illinois Urbana-Champaign)

Candidates in field of Computational Systems Biology are desired. Interested candidates can find additional information at <http://go.illinois.edu/csbfaculty>

Faculty Opening: Open Rank Tenure-Track

Position (U. Dayton)

Successful candidate expected to develop an externally funded research program and exhibit a strong commitment to teaching. Interested candidates can find additional information at <https://jobs.udayton.edu/postings/15712>

Faculty Opening: Tenure-Track Asst. Prof.

Position (U. Arkansas)

Desire candidates with research interests in fields of membrane sciences and technology, sustainability, biomedical engineering and nanotechnology. Interested candidates can find additional information at <http://hr.uark.edu/>

Faculty Opening: Open Rank Tenure-Track

Position (North Carolina State U.)

The search committee will give higher priority to the overall originality and promise of a candidate's work rather than to the area of specialization. Interested candidates can find additional information at <https://jobs.ncsu.edu/postings/41586>

Faculty Opening: Open Rank Tenure-Track

Position (The Ohio State U.)

Desire candidates in field of biomolecular transport phenomena in intercellular interactions. Interested candidates can find additional information at: <https://cbe.osu.edu/news/2014/06/faculty-position-opening>

Multiple Faculty Openings: Tenure-Track

Positions (Georgia Tech)

Areas of particular interest include synthetic biology, systems engineering, soft matter, energy sciences and nanomanufacturing. Interested candidates can find additional information at <http://www.chbe.gatech.edu/hg/item/319551>

Faculty Opening: Tenure-Track Asst. Prof.

Position (Tulane U.)

Applicants specializing in biological or energy research applications are of particular interest. Interested candidates can find additional information at: <https://academicjobsonline.org/ajob/jobs/4203>

Faculty Opening: Tenure-Track Asst. Prof.

Position (Princeton)

Search is open to candidates specializing in any area of chemical engineering. Interested candidates can find additional information at: <http://www.princeton.edu/cbe/news/archive/?id=13339>

Four Faculty Openings: Open Rank Tenure-Track Positions (Auburn U.)

Candidates will be expected to contribute to the growth of at least one of the department's strategic focus areas: energy and environment, advanced materials, computer-aided chemical and biomedical engineering. Interested candidates can find additional information at: <http://www.eng.auburn.edu/programs/chen/about/employment/facultypositions.html>

Faculty Opening: Open Rank Tenure-Track Position (U. Virginia)

Preferred research area will complement current departmental focus in biotechnology, energy & the environment, materials engineering & nanotechnology, and simulation & complex systems. Interested candidates can find additional information at <https://jobs.virginia.edu/applicants/jsp/shared/frameset/FrameSet.jsp?time=1409228805312>