The ASEE Chemical Engineering Division Newsletter

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Engineering Division

A Message from the Chair

Dr. Daina Briedis
Michigan State University

As we are well into the fall semester and the flurry of start-up activities has passed, it is useful to pause both for reflection on the June ASEE meeting and for anticipation of the coming academic year. For me, the summer semester is frequently characterized by (overly) high expectations of what should be accomplished. Motivated by what I have learned at the ASEE meeting, I return home with a long list of ideas for improving the classroom experience for students. It all doesn't get done. However, if I realize even one or two of my colleagues' ideas in my own classroom, the result is typically more effective learning for our students.

An abundance of valuable information is provided at the annual ASEE conferences; it is unfortunate that some of it is never utilized.

This year I also have the privilege of anticipating a year of service as Chair of the Chemical Engineering Division of ASEE. I'm left with the challenging commission of filling the shoes of David DiBiasio, the past chair, who has provided great leadership and encouragement for our efforts in the national challenge for curricular redesign in chemical engineering. I thank him and all of last year's division officers for their commitment and service to our profession.

The newly elected and re-elected officers (listed at the end of this article) and I are looking forward to working with you this year. How can the Chemical Engineering Division of ASEE continue to improve its service to you? What can we do to better disseminate teaching resources? How can members of our division be mobilized to become major players in the national efforts in curriculum restructuring? As David DiBiasio so appropriately wrote in last fall's newsletter, it is the members of our division who must work to elevate educational scholarship to its highest level. Who better than we to promote

scholarship in pedagogy as a serious element of the total package of engineering scholarship!

My own answers to these questions are reflected in the goals I propose for our division for this year:

- To increase active membership by involving young faculty so as to promote effective teaching as a vital and worthy element of a faculty member's portfolio—and to advocate participation in the ChE Division of ASEE as an efficient means of achieving this;

- To encourage more papers and publications that address teaching as research and pedagogy as scholarship (please see Jack Lohmann's June, 2004 ASEE paper, "*Turning Curriculum Innovations into Publishable Educational Scholarship*" and a new Carnegie Foundation book, "*Balancing Acts: The Scholarship of Teaching and Learning in Academic Careers*" by Mary Taylor Huber);

- To encourage pedagogical research collaboration among our members—possibly through the development of joint proposals across institutions;

- To broadly disseminate the high-quality ideas that are shared at the ASEE meeting and to provide a catalyst for collaboration by providing a "methods" database that is accessible on our division web site.

Our membership chair, David Silverstein, has recently designed a wonderful recruiting brochure. This will be available soon to assist you in attracting new members to our division. By involving young faculty members in ASEE, we can nurture in them a legacy of commitment and dedication to engineering education and student learning that has been characteristic of members of our division.

We must also do a better job of developing *and* disseminating the innovative approaches that our division members use in their curricula and classrooms; why should we wait only for regional and national ASEE meetings to gather ideas on new educational strategies for our programs? How can we best leverage these ideas to develop grant proposals for broader development and implementation? Members of the Chemical Engineering Division represent a relatively diverse group of institutions with varied approaches to engineering and liberal education. Given this diversity and our demonstrated commitment to engineering education, I believe that we are poised for research collaboration that will make significant contributions to the nationwide curriculum redesign effort.

Ultimately, though, we must look beyond these relatively near-sighted goals to consider how we might best support the engineering profession of the future. The monograph, "*The Engineer of 2020: Visions of Engineering in the New Century*," (National Academy of Sciences, 2004) encourages the engineering profession to define its own future rather than to respond reflexively to societal and technological changes. Transforming engineering education and

accommodating innovation from non-engineering fields are viewed as part of the strategy for achieving the vision. I strongly believe that chemical engineering education, as we embark on efforts in curricular redesign, is perfectly situated to provide leadership for engineering in the new century. Let's work together to achieve these ends.

Please feel free to contact any of the new 2004-05 officers with comments and ideas:

Daina Briedis, Chair
Richard Zollars, Chair-elect
James Newell, Secretary/Treasurer
David Silverstein, Membership
James Henry, Program Chair, 2005 Annual Conference
Skip Rochefort, Local Arrangements Chair, 2005 Annual Conferece
Nada Marie Assaf-Anid, Division Director-Elect
Kirk Schulz, Summer School Co-Chair
Steve Leblanc, Summer School Co-Chair

Be Sure to check out the Division Web Site:

http://www.asee-ched.org

The ASEE Chemical Engineering Division Award Recipients for 2004

The ASEE Chemical Engineering Division gratefully acknowledges the sponsors of these awards:

Dow Chemical Company
Eastman Chemical Corporation

The Joseph J. Martin Award

(for the best paper in the ChE Division at the previous ASEE meeting that also appears in the proceedings)

S. Scott Moor
Polly Piergiovanni
Chemical Engineering Department
Lafayette College

The authors are recognized for their paper entitled:

"Experiments in the Classroom: Examples of Inductive Learning with Classroom-Friendly Laboratory Kits"

The Chemical Engineering Division Lectureship

(for lifetime achievement in research, teaching, and service)
Sponsored by The Dow Chemical Company

John F. Brady
Chemical Engineering Department
California Institute of Technology

Professor Brady has made outstanding fundamental contributions to methods for simulating the dynamics of complex fluids and to the use of these methods to gain a deeper understanding of how fluids containing particles behave in a variety of engineering situations.

Lifetime Achievement Award in Chemical Engineering Pedagogy

Phillip C. Wankat
Chemical Engineering Department
Purdue University

Professor Wankat has made career-spanning contributions to chemical engineering education. In particular, his introduction of explicit problem-solving strategies into chemical engineering courses and textbooks and his scholarship and success in teaching others how to teach effectively and efficiently are acknowledged. These have had a significant, positive impact on countless students and colleagues.

William H. Corcoran Award

(for the best paper published in the previous calendar year in *Chemical Engineering Education*)
Sponsored by Eastman Chemical Corporation

David Silverstein
Chemical Engineering Department
University of Kentucky, Paducah

The winner is recognized for his paper entitled:

"Increasing Time Spent on Course Objectives by Using Computer Programming to Teach Numerical Methods"

The CACHE Award
(for contributions to computing in chemical engineering)
Sponsored by the CACHE Corporation

J. D. Seader
Chemical Engineering Department
University of Utah

Professor Seader has performed pioneering research on thermodynamics and phase equilibria; has developed algorithms for solving complex, non-linear equation systems; has introduced process simulation, design, and synthesis software into chemical engineering curricula; and has co-authored outstanding texts on process simulation, process and product design, and separation process principles.

Announcing ASEE ChE Division Awards for 2005

The Dow Lectureship Award

This award, sponsored by The Dow Chemical Company, 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 and a commemorative plaque presented at the Chemical Engineering Division Banquet of the ASEE Annual Conference.

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.

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.

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 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.

A condition of receiving any of the above awards is attendance at the Chemical Engineering Division banquet at the 2005 ASEE Meeting in Portland, OR, June 12-15, 2005.

Nomination Deadline: January 15, 2005

For more information on ChE Division awards, see either
http://www.asee-ched.org/
http://www.asee.org/awards/nominationinfo/otherdivision.cfm - cache

Instructions for Assembling a Nomination Package

Please assemble the nomination package in the following order. These instructions parallel those available at http://www.asee.org/awards/nominationinfo/program.cfm. Nomination packages not conforming to these guidelines will be discarded.

1. **Do not submit to ASEE either electronically or with hard copy!** Submit nominations to the ASEE ChE Division Awards Chair at the address below. Use the "non-electronic" cover form available at: http://www.asee.org/awards/nominationinfo/nomform.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.

5. 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.

6. Any nominee for an award may be renominated using the original nomination package for one additional

year only by sending a letter, email, or fax to the Awards Chair.

7. Send 5 copies of the nomination package, plus one original signed copy, by January 15, 2005, to the address below.

8. Questions? Contact the ChE Division Awards Chair at the address below.

Professor C. Stewart Slater
Chemical Engineering Department
Rowan University
201 Mullica Hill Rd.
Glassboro, NJ 08028-1701
856-256-5312
fax 856-256-5242
slater@rowan.edu