

The Voice - CPDD Newsletter

May 2008

From the Editor

Maintaining the STEM Workforce

You've probably seen the reports - this past year or so they seem to come from everywhere – how the US faces a serious crisis in attracting students into science math, engineering and technology. From the oft-mentioned NAS report “Rising Above the Gathering Storm” we get these sobering findings:

- Fewer than one-third of U.S. fourth graders and eighth graders performed at or above a proficient level in mathematics
- Only 15 percent of all U.S. undergraduates receive their degrees in natural science or engineering. In China, the figure is 50 percent and 67 percent in Singapore.
- The United States is a net importer of high-technology products today. Its trade imbalance in high-tech manufactured goods shifted from plus \$54 billion in 1990 to negative \$50 billion in 2001.
- During 2004, China overtook the United States to become the leading exporter of information technology products.

During the past two years, I've had the opportunity to work with local high schools to develop a pre-engineering course with the goal of informing and engaging students. Our program is very purposefully project-based so that students work in groups to solve engineering and technology related problems. We hope this effort will lead to more students deciding to pursue engineering and technology degrees in college and go on to the technical workforce. So like many of you, we are doing our little part to “rise above the gathering storm.”

This program has provided some insights that lead me to believe much of the energy

(and funding) around STEM is misplaced. What I mean is this:

- The schools we've worked with have plenty of math and science courses – there's no great need to increase the number of courses in these areas.
- The projects we provide require students to use the math and science they have already taken in school; not advanced stuff, just algebra, geometry and concepts from physical science. Far too many students don't have a clue on how to use that algebra for instance to solve the problem. Science and math seem to be disconnected from anything real.
- Students hate working in groups – and I don't blame them. The “bright, diligent” ones feel like they do all the work; the “social, lazy” ones don't have any fun. They haven't learned: 1) that (almost) everyone can make a contribution and 2) accomplishing a difficult task is rewarding.

Engineering is the perfect framework for students to (re)learn the importance of math and science and to use these to solve problems of significance. Open-ended problems that require creativity, application of knowledge, trial and error etc. are ideal mechanisms to teach students the teamwork and communication skills they will need to be successful.

CPD can help connect practitioners to schools who can benefit from their experience. If you're interested in what we've done to help connect high school students you can learn more at www.eng.uc.edu/eet.

Eugene Rutz, Editor
(email comments / rebuttals / kudos to
eugene.rutz@uc.edu)



Chair's Corner

As the new chair for the board this year, I am thrilled to report that the division has experienced a busy and successful past year under the leadership of Dr. Lynette Krenelka. For the past two years as chair-elect, I have observed the board's work closely and from a different perspective; I am continually impressed with the work our board and membership accomplish and the successes they achieve.

At this year's CIEC we recognized those who have shown outstanding service to the division. (see awards section of this newsletter). Again, thank you to all who received awards for the past year and all of your hard work.

If you haven't yet planned to attend the ASEE Conference this summer, please take another look at the information at <http://asee.org/conferences/annual/2008/> and plan to attend. This year's theme is "Building Bridges to Create Change in Engineering Education" and will be a good conference with timely topics. Eugene Rutz is the CPDD program chair for the ASEE Conference and he has an great schedule of CPDD sessions (see separate section in this newsletter). The CPDD Business meeting for all members will be held at the conference on Tuesday, June 24 at 12:30 pm. (room 415). This is a ticketed luncheon and is session #2422 on your ASEE registration.

The Board will be visiting Purdue University this October for the annual planning meeting. The focus at this year's planning meeting will be strategic planning.

We will utilize the membership's comments from our recent survey and work toward long term planning for the division. If you have input you would like for us to utilize during our session this fall, please feel free to send email to me at moser@purdue.edu.

Julayne Moser, Chair
CPDD Executive Board

Elections

Congratulations to the new CPDD Board members. Elections were held at the CPDD Business meeting at CIEC 2008 in New Orleans.

Please welcome Mark Schuver, School of Technology at Purdue University, Keith Plemmons, The Citadel as new board directors and Nancy Kruse, University of Tulsa as the new Chair –Elect.

We also extend congratulations and THANK YOU to Ray Fujioka who accepted our request to be the CPDD Photographer. Ray did a great job at CIEC and photos of events can be viewed on the CPDD web site at <http://cpd.asee.org/> (click on "events").

Also, the new PIC V representative was elected this spring. Congratulations to Pat Hall from the University of Tulsa who will be the next PIC V representative. Pat will be representing the CPDD, CED and CIP divisions as the PIC V representative.



ASEE Annual Meeting - 2008 Pittsburgh, PA

The CPD has a number of technical sessions at the ASEE annual conference that you'll want to attend. These include:

Programs that Serve Industry and Academia Monday June 23 7:00 am
Moderator – Helene Demont

Assessing the Efficacy of Non-Traditional Programs Monday June 23 10:30 am
Moderator – Lynette Krenelka

Innovative Programs – Development, Delivery, Evaluation Monday June 23 12:30 pm
Moderator – Eugene Rutz

Emerging Technologies / Pedagogies Tuesday June 24 8:30 am
Moderator – Virginia Westheider

Business Sessions:
Sunday June 22 1:00 pm
CPDD Executive Board Meeting

Monday June 23 2:15 pm
CIEC Executive Board Meeting

Tuesday June 24 12:30 pm
CPDD Business Meeting Luncheon (*ticketed session*)

Eugene Rutz
CPDD Program Chair '08

Kudos

CPD Division Awards Presented at CIEC in New Orleans

Each year at the CIEC Conference, the CPD Division recognizes those members for service on the CPDD Board, who volunteered for various positions such as program chair, etc., and those who have

shown outstanding work on a special project or event. Below are those members who were recognized for their service in the past year.

Certificate of Appreciation

Nancy Kruse – Outgoing Director, CPDD Board, University of Tulsa

Dr. Sally A. Covert – Outgoing Director, CPDD Board, University of South Florida

Ray Morrison – CPDD Past Chair, CPDD Board, ACETS Consulting

Kim Scalzo – CPDD Program Chair, CIEC 2008, Rensselaer Polytechnic Institute

Dr. Linda Krute – CPDD Program Chair, ASEE 2007, North Carolina State University AND as 2008 CIEC Co-General Conference Chair

Helen Demont – 2008 CIEC Co-General Conference Chair, University of Wisconsin

Dr. Lynette Krenelka – CPDD Outgoing Chair, CPDD Board, University of North Dakota

Certificate of Merit

Ray LePine – Outstanding work on the CPDD Web Site, Louisiana State University

Dr. Sally A. Covert – Outstanding work on the CPDD Web Site, University of South Florida

Special Presentation

The Joseph M. Biedenbach Distinguished Service Award

Helene Demont,
University of Wisconsin



CIEC Awards – CPD Division

At each CIEC, awards are presented for those being recognized for best workshop, session, moderator and speaker for each division. The CIEC 2007 CPD – CIEC awards were presented to:

Best Workshop: CPDD Director’s Workshop: How to Be Successful with Non-



Credit Programs Moderator: Ray Morrison, ACETS Consulting Presenters: Pat Hall and Nancy Kruse, University of Tulsa

Best Session: Pod-Casting for E-Learning/Emerging Technologies in Distance Learning Moderator: Greg Ruff, Auburn University Presenter: Hiro Iino, Iowa State University

Best Speaker: Hiro Iino, Iowa State University Session: Pod-Casting for E-Learning/Emerging Technologies in Distance Learning

Best Moderator: Greg Ruff, Auburn University Session: Pod-Casting for E-Learning/Emerging Technologies in Distance Learning



CPDD to Serve as General Conference Chair for the 2008 Conference for Industry and Education Collaboration (CIEC)

This year's CIEC was held in New Orleans, Louisiana on February 4-6, 2008. Conference hotel was the beautiful Hotel Monteleone located in the heart of the French Quarter. We were originally scheduled to be in New Orleans shortly after Hurricane Katrina. San Antonio served as the alternative site that year. Conference returned to New Orleans two years after Katrina.

Dr. Linda Krute (University of North Carolina) and Helene Demont (University of Wisconsin-Madison) very capably served as the Co-General Conference Chairs for the 2008 CIEC.

The conference was attended by 269 people, of which 90 were first timers. In addition there were 27 companions and 6 one-day registrations. The breakdown of attendees by division is as follows:

CED 100	CIP 27
CPD 52	ETD 57
Undesignated 33	

The CPD Executive Board voted to allocate funds and become a conference sponsor. Those funds were used to co-sponsor the General Conference Chairs Reception.

Scheduled were five pre-conference workshops, twenty pre-conference meetings, and one post-conference workshop. In addition, two Plenary and 27 technical sessions were offered. The conference reception: A Taste of Louisiana was enjoyed by attendees along with the all conference hospitality which was held on the Creole Queen Riverboat Thursday afternoon.

Conference evaluations were very positive and the conference management team would like to thank all those who completed the evaluation form.

Linda and Helene would like to extend their sincere gratitude to all those who assisted with the conference. It was a team effort.

We look forward to increased CPD participation at the 2009 CIEC being held at the Royal Plaza in Orlando, FL Feb. 4-6.

Linda Krute & Helene Demont

Ask a Colleague

SIGs offer you an opportunity to discuss work issues with others experiencing similar issues. You can join one or more SIGs. To be added to any listserv, send email to the SIG chair of your interest area. Remember, you can belong to more than one SIG.

SIG ADM (administration) - administrative development and delivery of credit/non-credit courses in science, technology, engineering and math. [demont@engr.wisc.edu]

SIG DEL (delivery) - development and delivery of distributed/distance learning programs. [pjewell@iastate.edu]

SIG FAC (faculty) - continuing education and training programs for engineering professionals, emphasizing learning strategies, course development, and other aspects. [keith.plemmons@citadel.edu]

SIG IND (industry) - analysis, design, development, implementation and evaluation of training and development programs for science, technical, engineering, and math-related occupations. [lynda.m.coulson@rolls-royce.com]

SIG INT (international) - delivering training and education in science, technical, engineering, and math-related occupations in the international arena. [borbely@umich.edu]

Helene Demont, UW-Madison
Special Interest Group Interim Chair

Collaborate Through the CPDD SIGFAC Wiki Site

Now is the time to collaborate and to grow. Now is the time to share in the successes and challenges of other CPDD members. As professionals, we have substantive problems and successes, and are willing to share in a spirit of mutual support and collegiality. Together we work to improve our institutions and to educate the next generation. One effective way to collaborate is to join the CPDD SIGFAC wiki and to share ideas, concerns, and known best practices.

The CPDD SIGFAC Collaboration is a private (nonpublic) wiki site specifically created for the sharing and discussion of CPD faculty related issues. The SIGFAC encompasses members interested in issues relative to the education and training of engineering professionals through continuing engineering education programs, with emphasis on androgogical learning strategies (adult learners), course development, and other issues related to the education of adult learners.



Members wanting to join the CPDD SIGFAC Collaboration are asked to contact Dr. Keith Plemmons, PE at keith.plemmons@citadel.edu

ASEE Annual Meeting - 2009 Austin, TX

Now is the time to begin thinking about attending and presenting your papers at the 2009 Annual Conference. Abstract Submission Phase is open from September 8th to October 10th, 2008. So, submit your abstract early and get you Fall off to a great start. See you at the Annual Conference and Exposition in Austin, TX.

Keith Plemmons
CPDD Program Chair '09



CPD Division Award recipients presented at CIEC, New Orleans