

From the Editor

Another Bubble or the New Normal?

In one of my roles, I oversee our coursework-based master's programs. These programs have been a source of new enrollments and income for our college for the past 10 years. Like other engineering colleges, we have seen a drop in applications over the past 2 years (a significant drop that keeps our Dean up at night) from international students.

One program seemingly immune from this is computer science. The demand for spots in our degree program far exceeds our ability to accommodate students. We also see an increasing number of students from other disciplines apply to the CS graduate program.

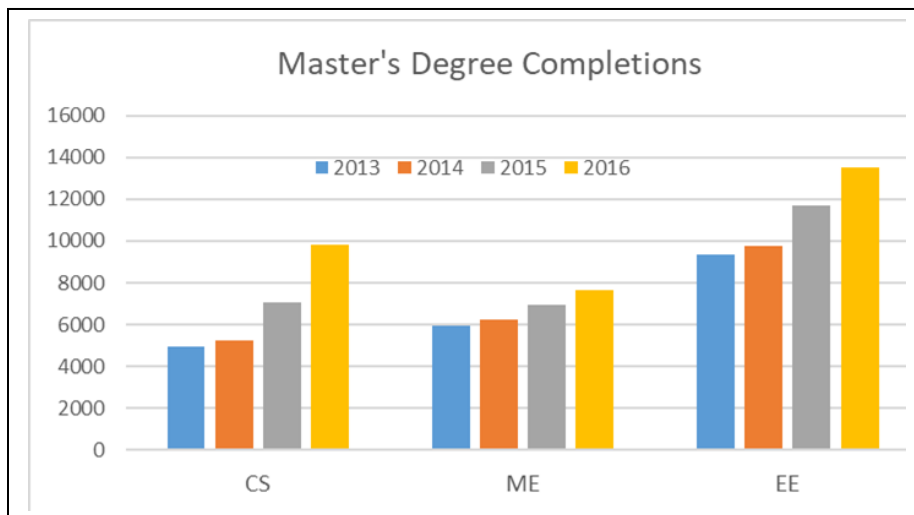
It is no wonder individuals (particularly those from outside the US hoping for employment) are seeking out computer science. One study from 2015 claimed there were nearly 10X as many openings in computer science as there were graduates. More recent articles continue

to highlight the significant job opportunities in areas like software engineering and data science. The chart below illustrates the growth in master's degrees awarded in the three largest engineering-related fields. CS grads doubled in the 4 years between 2013 and 2016 and the number continues to rise.

It's worth asking if the demand for graduate degrees will continue to grow or is this a repeat of something we saw in the early 90's? One difference in this current growth cycle are the range of professions seeking CS knowledge. If you look at a roster of students taking courses like AI and machine learning you do see mostly CS and CompE students but you also see aerospace engineers, civil engineers, mechanical engineer, and even medical professionals.

So will it continue to grow? Yes, certainly for a time. And if your job includes providing desired skills to the workforce you are likely working hard to offer courses in data science, cyber security and artificial intelligence. Oh by the way, anyone have two good CS teaching faculty you can send my way!?!

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



Chair's Corner

CPDD members, for those who I have not met, my name is Marty Ronning and I am the Director of Instructional Technologies for the A. James Clark School of Engineering at The University of Maryland. I am proud and excited to serve as the Chair for this division and I have high hopes that we can collectively assist each member in furthering their institution's programs.



Your Executive Board has been hard at work to this end and had a very productive meeting in College Park, MD. There's no question that I was a bit overwhelmed at the prospect of hosting such distinguished colleagues at my home institution. The first weekend in October seems to be a great time to put our heads together and address future needs of the division.

This coming February, we will be submitting modifications of our division bylaws to ASEE for approval so watch for your invitation to participate in the voting process held at our business meeting during our mid-year conference, CIEC, in New Orleans.

The Board heard updates from our future conference chairs and have a great set of presentations lined up for CIEC and abstracts are rolling in for ASEE 2019. Big thanks should go out to Terri Gaffney and Eugene Rutz for their steadfast commitment to these programs.

Our membership represents many different institutions, all of which have differing needs and abilities. We discussed how to best serve the members and are prepared to act on your

input. I myself joined this organization and was impressed at how the conferences are built to serve the attendees.

Remember that The Continuing Professional Development Division (CPDD) of the ASEE is here to provide continuing professional development to our practicing engineers and technical professionals worldwide. Your participation in CPDD shows your commitment to this mission and we are all here to help. We are a volunteer organization that values all members. If you'd like to join with our team in even the smallest way, please let us know.

In conclusion, thank you for your support moving forward and I hope to see you all next January at CIEC in New Orleans where you can help us "Unmask Engineering Education"

Marty Ronning
Chair – ASEE/CPDD

Conference for Industry & Education Collaboration (CIEC) - 2019

The Conference for Industry and Education Collaboration (CIEC) will be held this winter in beautiful New Orleans, Louisiana, from January 30 – February 1, 2019. The theme of this year's conference is "Unmasking Engineering Education," and we have a full slate of interesting and informative sessions arranged for the conference. Register and make your hotel reservations now to receive the early-bird discount for the conference fees and to receive the conference rate for your room.

See the CIEC 2019 website for details about the conference registration, hotel reservations, sponsorship opportunities and the conference program at: <https://www.asee.org/ciec2019>.

Also consider arriving a day early, to attend the Tuesday afternoon Continuing Professional Development Division (CPDD) workshop, titled “So That Happened, Now What? How to Manage Change” that will begin at 1:30 PM. This exciting change management workshop will be presented by Jeff Wilkie, a faculty member for the University of Tulsa’s ELITE program, and comes highly recommended by Pat Hall and Nancy Kruse. Attendees will leave with concrete plans, actions, and ideas for managing change. The workshop is \$50 and can be added when you register for the conference.

After the workshop, there will be a reception for new attendees at 5:00 PM, followed by the All Conference Opening Reception starting at 7:00 PM Tuesday evening. Bring a mask! This reception will be a fun event and will give you a chance to meet and greet your colleagues before the conference sessions begin.

Wednesday morning’s Plenary Session will be a panel discussion with representatives from industry. The panelists will be discussing how they define diversity within their businesses and how we can help them meet their diversity goals.

Wednesday evening, CPDD and the International Association of Continuing Engineering Education (IACEE) will be co-sponsoring a unique hospitality event for our members: We have reservations aboard the historic paddleboat, the Creole Queen, for a river cruise, with live jazz music and a dinner



buffet from 6:30 – 9:00 pm. This event is free for CPDD and IACEE members, however, you must reserve your ticket prior to December 1 to guarantee a place on the boat. Additional tickets are available for your companion or other guests at a cost of \$64 per ticket. Contact the CPDD program chair, Terri Gaffney (terrig@uidaho.edu), to reserve your ticket or order additional tickets, or if you have any questions about CIEC 2019.

On Friday, CPDD will hold our traditional Special Interest Group (SIG) breakfast from 8:00 – 9:15 AM, followed by a round-table discussion from 9:30 AM – 12:00 PM. Together, we will plan ideas for next year’s conference, discuss topics and issues that interest and concern us, and share what’s working and not working at our home institutions. This is your opportunity to talk with representatives from industry about their needs and desires for continuing professional engineering education, to expand upon ideas brought forth during the conference, and to network with others who do work similar to yours.

On behalf of the planning committee, we hope you are able to attend CIEC 2019 and we look forward to seeing you in New Orleans!

Terri Gaffney
CIEC Program Chair



2019 ASEE Annual Conference & Exhibition

The ASEE 126th Annual Conference and Exhibition will be held June 15-19, 2019 in Tampa, Florida. The Continuing Professional Development Division will again provide a variety of sessions of interest to our members:

- **Technical sessions** where authors provide insights into techniques and technologies that facilitate success in professional development programs and challenge us to innovate in both what we provide and how we provide it.
- **Panel discussions** co-sponsored with other divisions that examine the changing nature of the workforce and how these changes impact both traditional higher ed and our role in providing programs for the workforce.
- The annual CPD **Division Business Luncheon** that provides an excellent opportunity to connect with CPD professionals and help set the future direction for the division and upcoming conferences.
- A **Presenter and Faculty Breakfast** to celebrate those who contribute to the conference on behalf of the division and to connect with other ASEE members. We use this time to get input on ways to extend the reach of the division to those not yet connected with our work.

I hope you can join us in Tampa for the conference. There's no better way to learn about the huge range of efforts going on within ASEE than by attending and actively participating.

Hope to see you there!

Eugene Rutz
CPDD Program Chair

Building the CPDD Community

I started working with online engineering at Mississippi State in October 2014. My previous online experiences had been with other college disciplines for nearly 10 years. While I was comfortable with the recruitment, advising, and management of different types of online programs the actual delivery of online engineering courses was a new experience for me. Skills I had learned for other programs didn't necessarily apply to these programs and I was out of my comfort zone. Thankfully, Rita Burrell, currently the Executive Director of Engineering Professional Education at Purdue but my supervisor at the time, had been in online engineering education for awhile and mentored me through the process. Even better, she introduced me to my new community of professional mentors, contemporaries, and now, friends, by taking me to the Conference on Industry and Education Collaboration (CIEC) in February 2015.

Since my first conference in 2015 I've attended each CIEC, presented at the conference, organized the Continuing and Professional Development Division (CPDD) sessions one year, worked with the conference poster session, and this year I'm focusing on Newcomers. Newcomers, or as they've previously been called, Red Stars, can find their own community at CIEC but it requires the community to reach out to potential newcomers in their departments or university community. Each time we meet as a board, division, or friends it is apparent that mentorship and personal invitations have been a key to success for this group.

Have someone working in your department or university who might be interested in learning more about continued professional development topics in graduate engineering? Invite them to attend the 2019 Conference on Industry and Education Collaboration in

exciting New Orleans, January 30-February 1. As a current CPD division member you are the thread that keeps our membership and professional learning association growing. Newcomers have the opportunity to grow their knowledge base of professional engineering education as well as experience potential leadership roles at the conference or within the division.

For example, Mark Schuver, a director at Purdue University's Purdue Polytechnic Institute, was invited to join a presentation with Purdue faculty at the Conference for Industry and Education Collaboration in 2005. He remembers presenting to a group including engineering faculty, staff, and industry representatives like Rolls-Royce. When asked how he would relate the relevance of CIEC attendance to a newcomer he stresses the opportunity to network with peer institutions. His word of reference is "PRICELESS!" Mark is now heavily engaged in the Continuing Professional Development Division (CPDD) and has been a CPDD board member, co-conference chair for CIEC, conference presenter, session moderator, and facilitates the division's Special Interest Groups (SIG) and coordinates with the Corporate Member Council on behalf of the division.

Mark's story is one of several I've compiled recently that indicate the value of networking as a primary value of the CIEC each year. Terri Gaffney, Associate Director, Engineering Outreach, at University of Idaho doesn't remember exactly her first CIEC in the mid-90's. Like others, someone at the conference reached out to her and imparted the potential opportunities for her involvement. "When I began working at Engineering Outreach at the University of Idaho, our program was affiliated with NTU (National Technology University) and AMCEE (Association for Media-Based Continuing Education for Engineers). Many of the people in those organizations were also

attending CIEC. I remember getting to know Linda Krute (Director of Distance Engineering Education Programs, NC State University) during a fun-walk at an AMCEE meeting in Purdue. In less than 5 kilometers, she tucked me under her wing and invited me to join CPDD and the next CIEC. Over the years, she has willingly shared with me both her time and knowledge of continuing engineering education," she said.

Terri felt the true community of CIEC/CPDD when as the program chair for the 2016 conference she arrived only to find out a friend of the family had passed away. Terri says, "I was amazed and grateful for all the support I received from everyone that week. I stayed for the first part of the conference, then left early for the funeral knowing that the entire CPDD division and the planning team had my back!"

Kim Scalzo, Interim Executive Director, Academic Technologies and Information Services and Executive Director of Open SUNY, has also been involved with CPDD/CIEC since 1999. She remembers her first conference where she connected with multiple colleagues who were seasoned veterans in the CE/CEE field that "willingly shared their expertise and experiences with me. I learned a great deal at that first conference and have not missed a CIEC since. And, many of those seasoned veterans, as well as other newcomers, have become trusted colleagues and lifetime friends – this is still my "go to" group when something gets thrown at me and I'm not sure how to deal with it!"

At the 2019 CIEC in New Orleans from January 30 – February 1 at the Hotel Monteleone the conference will be hosting a speed dating style event to help conference "old-timers" meet newcomers and possibly bring them into the CIEC community. Take a moment and send an invite to the

conference. A complete list of sessions and events surrounding the conference can be found at www.asee.org/ciec2019/program. Early registration ends mid-November so encourage your new community members to register as soon as possible.

Tamra H. Swann
Distance Education Coordinator
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State University

