

From the Editor

Is It Time to Get a Second Life?

I find it a bit ironic that though I have a reputation around my university for being a “tech savvy guy” I am really pretty traditional when it comes to education. So when I took my son on a tour of a college he was interested in, I silently cheered when the guide described a classroom renovation gift where the donor insisted on chalk boards in the room.

Recently I’ve been pushed way outside my comfort zone with some discussions of building learning activities in a virtual environment. I’m slow to concede that “games” can teach authentic engineering and science skills. There was a recent NPR story about a Prof teaching economics in a virtual world and I “got that”, but technology and math and ... I just wasn’t ready.

So when a truly tech savvy colleague told me about Second Life (<http://secondlife.com>) and how it was being used by universities and corporations for a variety of teaching / learning activities I was skeptical. As described by their website, Second Life offers a mechanism to use simulation to provide experiential learning. Individuals can practice skills, try new approaches, and learn from mistakes.

Virtual learning spaces have been created to teach chemistry, raise funds for Katrina relief efforts, connect high school students across continents, and much more. The National Oceanic and Atmospheric Administration has created a virtual space (www.esrl.noaa.gov/outreach/sl) to “help society learn about environmental concerns”. The NOAA virtual space is an island that includes glaciers, science experiments and tsunami demonstrations.



NOAA’s Second Life Island

Architects at Crescendo Design in Wisconsin have created custom homes in this virtual environment. These are used as study models that enable clients to visualize materials, landscaping, features and color schemes. These provide a real opportunity for these clients to “see” the building before it is built. The environment is rich enough that the architects can walk through the building with a client discussing features in real time.

Back in the real world of Cincinnati, we are forming a learning community of educators to begin to discuss (and imagine) how this environment can provide authentic learning experiences for STEM disciplines.

The time might be right for us in the continuing engineering education world to start that discussion as well.

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

Chair's Corner

Hello Fellow CPD Member,

The Continuing Professional Development Division Executive Board met in Grand Forks, North Dakota for its October fall planning meeting. It was a very productive meeting. Here is a picture of the group outside of the Hilton Garden Inn. The Fall Planning Meeting is a time when the Board Members focus on what is important for the upcoming year(s) and review the activities that were in place the previous year.



Here are some highlights from the meeting:

New Mission Statement. The mission statement was reviewed and a few minor changes were made (science, technology, engineering and math were added). The new mission statement is:

CPDD fosters the development, delivery, and improvement of continuing education in all areas which pertain to allied branches of science, technology, engineering and math; CPDD provides advocacy for and leadership in lifelong learning; and creates opportunities for exchange of information and expertise among providers and consumers of educational programs.

New Vision Statement. The board also reviewed the vision statement and the new statement reads:

CPDD is the preeminent organization for providers of continuing professional development for practicing engineers and technical professionals.

Other major activities that CPDD will be working on this upcoming year include:

- expanded marketing efforts
- new Special Interest Groups (SIGs)
- modified CPDD Website
- 2007 CIEC in Palm Springs
- 2007 ASEE in Honolulu

A big thank you goes out to Paul Jewell, Program Chair of the 2006 ASEE Conference in Chicago and Greg Ruff, Program Chair for the 2006 CIEC in San Antonio. The programs were excellent. Excellent programming continues into 2007 with Kim Scalzo serving as Program Chair for 2007 CIEC in Palm Springs and Linda Krute serving as Program Chair for 2007 ASEE in Honolulu. Thank you for taking on the role as Program Chair and providing valuable workshops and sessions. Two CPDD members have volunteered to be Conference Co-Chairs for the CIEC 2008 in New Orleans - Linda Krute and Helene Demont will lead us with a great program and lots of fun. I would also like to thank the CPDD Executive Board Members and other members of the CPDD leadership team (archives, honors and awards, membership / marketing, newsletter, publications, website, SIG leaders, and PIC V representative) for their efforts over this past year and their continued volunteer efforts during 2007. It is going to be an exciting year!

The logo for CPDD was discussed at the fall planning meeting. The balloon logo has been replaced by a logo that utilizes the

ASEE logo along with the CPDD wording. The new logo is shown below:



If you have questions about any of the CPDD activities, please feel free to e-mail me at lynettekrenelka@mail.und.edu. Thank you.

Dr. Lynette Krenelka
Chair, CPDD Executive Board

Special Interest Groups (SIGs)

The following new SIGs have been formed and will be an integral part of the CPDD Leadership Team. They will be non-voting members of the Board and will play a part in the programming for CIEC and ASEE.

SIG-IND (Kim Scalzo) - members of business and industry who are responsible for the analysis, design, development, implementation and evaluation of training and development programs for science, technical, engineering, and math related occupations.

SIG-DEL (Paul Jewell) - members from industry and education interested in the technical issues associated with development and delivery of distributed/distance learning programs.

SIG-FAC (Keith Plemmons) - members interested in the issues relative to the education and training of engineering

professionals through continuing engineering education programs, with emphasis on andragogical learning strategies (adult learners), course development, and other issues related to the education of adults learners.

SIG-ADM (Helene Demont) - members who are involved with the administrative aspects of development and delivery of credit and non-credit courses in science, technical, engineering and math fields.

SIG-INT (Ed Borbely) - members from education and industry who are interested in the unique aspects of delivering training and education in science, technical, engineering, and math related occupations in the international arena.

Ron Terry, Chair

ASEE Annual Meeting - 2007 Honolulu, Hawaii

A full schedule of activities are available for CPD members.

Sunday, June 24 1:00 – 4:00 p.m.

CPD Board Meeting

The Continuing Professional Development Board will meet from 1:00 - 4:00 p.m.

Moderator: Lynette Krenelka, University of North Dakota

Monday, June 25 7:00-8:15 a.m.

Industry –Academia Collaborations

Moderator: Eugene Rutz, University of Cincinnati

Presentations:

- Industry Academia Collaboration
Render to Business Ready Graduates –
Lakshmi Munukutla and Richard
Newman, Arizona State University; John

Magrane and Carol Popovich, Microchip Technology, Inc.

- A New Paradigm for Assessing the Potential of a Digital Resource: The Paid Trial - Lee Pedersen, Brown University and Jeri-Anne McKeon, Knovel Corporation
- Facilitated Work Based Learning (FWBL) - Continuing Professional Development build on Partnerships – Flemming Fink, Aalborg University
- Attributes of Technology Leaders – John Robertson, Arizona State University

Monday, June 25 10:30 a.m. – Noon
Development of Undergraduate Degree Programs

Moderator: Linda Krute, North Carolina State University

Presentations:

- The Development of 2+2 Engineering Programs in North Carolina – Sarah Rajala, Mississippi State University and Tom Miller, North Carolina State University
- Feasibility of a Fully Online Undergraduate Mechanical Engineering Degree for Non-Traditional Learners – Frank Fisher, Stevens Institute of Technology
- Accreditation Process for Distance Engineering Degree Program, Lynette Krenelka and John Watson, University of North Dakota
- ABET Accreditation Issues in a Two-Campus Distance Education Program in Engineering Mechatronics – Jerome Lavelle, Yusef Fahmy and Richard Keltie, NC State University

Monday, June 25 12:30-2:00 p.m.
Developing Programs for Adult Learners
Moderator: TBD

Presentations:

- Addressing the Career Development Needs of Project Professionals – James Plemmons, The Citadel
- Experiences Moving to a Student Centered Paradigm for Part-Time Mature Engineering Students in Ireland - Kevin Kelly, Dublin Institute of Technology
- Preparing for the Next-Generation Systems - John Robertson and Joseph Tidwell, Arizona State University
- Educating Engineers for the Information Age: Engineering Professionals' Perspective on the Subject – Fazil T. Najafi, University of Florida and Adnan Javed, University of Florida/Boyle Engineering

Monday, June 25 2:15-4:00 p.m.
CIEC Executive Board Meeting

The CIEC Executive Board will meet to reflect upon the 2007 CIEC conference in Palm Springs, discuss the upcoming CIEC conference to be held in New Orleans in 2008, and conduct regular CIEC business for the CPDD, CIP, ETD and CED sponsoring divisions.

Moderator: David Quick, Rolls-Royce

Tuesday, June 26 8:30-10:15 am.
New Approaches to the Development of Online Learning & International Programs
Moderator: TBD

Presentations:

- Remote Laboratory Experiments for Adult Learners – Vernon Matzen and Abhinav Gupta, North Carolina State University
- Preparation for Online Teaching and Actual Practices for Technology-Oriented Courses – David Batts, Sherion Jackson, Cheryl McFadden, Richard Moore and Leslie Pagliari - East Carolina University
- The Shaping of Virginia Tech's International Engineering Education Program – Glenda Scales, Becky Gunter and Cheryl Peed, Virginia Tech University

Tuesday, June 26 2:15 – 4:00 p.m.
Successful Professional Development Programs
Moderator: TBD

Presentations:

- How Faculty can be Successful (and make money) through Teaching Professional Development Programs – Pat Hall and Nancy Kruse, University of Tulsa
- Understanding the Medical Product Development Process: Continuing Professional Development for Life Science Professionals - Rogelio Rodriguea, UC Irvine
- Supporting K-12 Teacher Professional Development through the National Center for Engineering and Technology Education - Kurt Becker, Utah State University

Tuesday, June 26 4:30-6:00 p.m.
CPD Division Meeting

This is a business meeting of the Continuing Professional Development Division. All CPDD members are invited to attend.
Moderator: Lynette Krenelka, University of North Dakota

Linda Krute
CPDD Program Chair

Board Members Sought

The CPDD is soliciting nominations for new board members. Board members are elected for a 3-year term. Responsibilities include:

- Member in good standing of the ASEE/CPDD.
- Attend and participate in two Executive Board meetings per year and any conference calls by order of the chair.
- Serve on committees assigned by the chair.
- Participate in setting policy for division.

Please send an e-mail letter of interest with a short current resume to:

Ray E. Morrison
ray.e.morrison@lmco.com

Workshop Opportunity

Building Quality Into Online Professional and Technical Degree Programs will be offered March 26-27, 2007 in Madison, Wisconsin.

For complete information and to register, please visit:
http://epdfiles.engr.wisc.edu/pdf_web_files/epd/J005.pdf

ASEE members receive \$100 discount

2007 Conference for Industry and Education Collaboration

Palm Springs

Summary of CPDD Sessions

Monday, February 5, 2007

1:30pm - 4:00pm

CPDD Board Meeting

Moderator: Lynette Krenelka - Director, Distance Degree Programs, University of North Dakota

Meeting of the Board of Directors of the Continuing Professional Development Division

5:00pm - 6:30pm

CPDD Meet and Greet

Moderator: Lynette Krenelka - Director, Distance Degree Programs, University of North Dakota

Meet and Greet sponsored by the Continuing Professional Development Division and open to all Conference Attendees (Ticket Required \$25)

Tuesday, February 6, 2007

8:30am - 12:00pm

CPD 231 CPD Director's Workshop: How to be Successful with Non-credit Programs

Moderator: Ray Morrison - University & Organization Relations, Engineering Integration & Strategy, Lockheed Martin Aeronautics Company

Presenters: Pat Hall - Associate Dean, Continuing Education, University of Tulsa; and Nancy Kruse, Director of Continuing Education and Science Education, University of Tulsa This workshop is for you if you 1) are new to non-credit programming, 2) have years of experience with non-credit programs, or 3) are even just

exploring the possibility of getting into it.

Don't miss out on this great opportunity to work with, and learn from, your colleagues "in the know". We'll examine and share innovative practices which help to create successful non-credit programs. You'll learn what to beware of, as the challenges (we like to call them nightmares) are exposed!

Bring your ideas, your questions, and even a sample of your programs to share with the group. It's exciting. It's addictive. It's maddening. It's rewarding. It's Non-Credit! And It's for Risk-takers!

Ticket Required (\$50)

1:00pm- 5:00pm

CPD 232 Online Teaching, Blended Instruction, and Emerging Technologies, Choosing the Right Tools

Moderator: Greg Ruff – Director of Engineering Outreach, Auburn University

Presenter: Marie-Pierre Huguet - Course Developer, Rensselaer Polytechnic Institute

Instruction is in a constant state of change as new technologies emerge and old technologies mature. Keeping abreast of the latest changes and knowing how to integrate them in instructionally sound and cost effective ways can be challenging. This workshop focuses on the elements of instructional design that drive the development of effective Web-based instruction and on the variety of tools and strategies that can be used to design, develop, and evaluate them. The participants will be lead through a series of mini presentations, discussions, and hands-on activities that will enable them to select the tools and technologies that work best for them and their institutions to ultimately develop their own, successful Web-based

course. The technologies discussed during this workshop include: Teaching and learning tools (learning management systems, synchronous and asynchronous tools, gaming devices, pod casting, blogs and wikis, ...) design tools (ID models, design brief, storyboarding, ...) development tools (media creation, HTML editors, accessibility tools, ...) and evaluation tools (process, matrix, formative and summative, ...).

Ticket Required (\$50)

1:00pm -5:00pm

CPD 233 The World is Flat - Innovating a Global Education Strategy

Moderators: Ed Borbely - Director, Center for Professional Development, University of Michigan; Jeffrey Goss - Assistant Dean and Executive Director, Center for Professional Development, Arizona State University

Presenters: TBD

Change, innovation, and competitiveness in the ever shrinking global marketplace continue to redefine and reshape economies. As a result, industry and higher education are continuously evolving strategic plans to access and integrate knowledge and information to remain viable in the new global economy. In this workshop, participants will see innovative Academic/Industry models for global engagement from Arizona State University, University of Michigan, Northrop Grumman, Intel Corporation, and Target Corporation highlighting China, Korea, and India.

Ticket Required (\$50)

Wednesday, February 7, 2007

7:30am - 9:00am

CPD 331 CPDD Get Acquainted/Business Meeting Breakfast

11:00am - 12:30am

CPD 332 Making the Grade - Creating and Implementing "Best in Class" Educational Programs through Learning Management Systems

Moderator: Ron Terry, Lockheed Martin Aeronautics Company

Presenters: Greg Inman, Systems Engineering Manager, Raytheon Professional Services; Jay Holobach, Learning Solutions Manager, Raytheon Professional Services

How do you get your elearning to your audience? You can develop the best elearning course in the world, but if it won't launch from a Learning Management System (LMS), what good is it? Raytheon Professional Services (RPS) has launched and maintained several Learning Management Systems, including one for the world's largest automotive manufacturer, which has over 20 million transcripts, 400,000 active users, and over 500 SCORM compliant courses. Learn how RPS balances creative course development with the right amount of testing and identifies the appropriate test suite to ensure quality. Also, is hosting right for your organization? We invite you to join us at this session to find the answers to these LMS questions and gain insight through RPS experiences by interacting with a course as it makes its way from idea to implementation.

11:00am - 12:30am

CPD 333/CIP 342 Developing Successful Engineering Leadership Development Programs

Moderator: Kim Scalzo - Director of Outreach Programs, Rensselaer Polytechnic Institute

Presenter: TBD

2:00pm - 3:30pm

CPD 334 How to Help Your University Respond to the Training Needs of Industry and Government

Moderator: Ron Terry - Senior Manager, Learning and Development, Lockheed Martin Aeronautics Company

Presenters: Stephen A. Szygenda, PhD - Professor, Department of Computer Science and Engineering, Southern Methodist University; Jerrell T. Stracener, PhD - Scholar in Residence in EMIS and Founding Director, Systems Engineering Program, Southern Methodist University

This presentation describes the concept, approach and results of providing customer-driven partnership-based systems engineering graduate education. Southern Methodist University' (SMU) School of Engineering (SoE) developed a quick and non-traditional academic response to Lockheed Martin Aeronautics'(LM Aero) need for graduate systems engineering education for its Ft.Worth, Texas employees. The traditional on-campus / distance education Systems Engineering Masters Degree Program was focused on the needs of diverse students and employers, and therefore did not meet the specific needs of LM Aero management as well as many of the employees. Utilizing a long-standing relationship of the SMU Systems Engineering Program (SEP) with a number of LM Aero managers and engineers, coupled with the newly established (1) SMU Department of Engineering Management, Information, and Systems (EMIS) and (2) Executive Masters Degree Program, LM Aero needs were captured, a partnership established and SMU offered the first on-site Master of Science Systems Engineering Degree (MS SE) class in January 2003, less

than three months from concept formulation. The SMU on-site LM Aero MS SE degree program utilizes student feedback and management input to maintain responsiveness to changing needs. The partnership has been expanded to include MS Engineering Management and MS Software Engineering degree programs.

4:00pm - 5:30pm

CIP 343/ CPD 335 University, Industry, and Government Collaborations

Moderator: Julayne Moser – Purdue University

Presenter: TBD

4:00pm - 5:30pm

CPD 336 Best Practices for the Administration of Distance Learning Programs: You don't have to reinvent the wheel!

Moderator: Kim Scalzo – Director of Outreach Programs, Rensselaer Polytechnic Institute

Presenter: Helene Demont, Program Manager, Office of Engineering Outreach, University of Wisconsin – Madison.

The effective administration of distance learning programs requires a wide array of support services and can present many challenges in terms of university policies and procedures. Within the engineering education community, many of our colleagues have already figured out ways to address these support and policy issues. Come learn from a few experts so you don't have to reinvent the wheel and come share your best practices with colleagues.

Evening (time TBD)

CPD 337 CPDD Hospitality

Hospitality and Networking Event hosted by the Continuing Professional Development Division - All conference attendees are welcome!

Thursday, February 8, 2007

7:30am - 9:00am

CPD 431 CPDD SIG Planning Meeting

Meeting for the CPD Special Interest Groups (SIG) and planning for the CPD Program for the CIEC 2008

9:00am - 10:30am

CPD 432/ CIP 442 Partnerships that Perform: It Takes More than Good Intentions

Moderator: Sally Szydlo – University of Florida

Presenters: Kim Scalzo - Director of Outreach Programs, Rensselaer Polytechnic Institute; and Sue Bray - Executive Director, New Vistas

Partnerships provide opportunities for organizations to leverage each other's strengths and to achieve objectives that would otherwise not be possible. Developing and maintaining effective partnerships requires careful planning, design, and implementation. In this session you will be exposed to a practical model for developing and maintaining partnerships designed to increase the likelihood for sustainability. In an interactive exercise, participants will also be asked to share their experiences with partnerships in relationship to the model presented.

11:00am - 12:30pm

CPD 433 International Continuing Education and Distance Learning

Moderator: Bill Wepfer - Vice-Provost for Distance Learning & Professional Education, Georgia Institute of Technology

Presenters: Mervyn Jones, Imperial College (London, UK); Bill Wepfer - Vice-Provost for Distance Learning & Professional Education, Georgia Institute of Technology; and Nelson Baker, Associate Vice Provost for Distance Learning & Professional Education, Georgia Institute of Technology

This session will discuss trends impacting the international delivery of continuing education (non-credit) as well as MS programs. Mervyn Jones will describe recent developments concerning continuing education programs to include new program development, industry partnerships, business planning, delivery of programs in international markets, and program assessments. Nelson Baker will present a case study of distance delivery of MS engineering programs to Georgia Tech's international campuses as well as its corporate partners in Asia, Europe, and Latin America. Bill Wepfer will conclude the session by providing an overview of the IACEE World Congress on Continuing Engineering Education which will be held in May 2008 in Atlanta, GA. No

2:00pm - 3:30pm

CPD 434 Pod-casting for E-learning/Emerging Technologies in Distance Learning

Moderator: Greg Ruff – Director of Engineering Outreach, Auburn University

Presenter: Hiroyuki (Hiro) Iino - Manager of IT Support, Engineering Distance Education, Iowa State University

The last couple of years have seen a rise in the popularity of Web 2.0 and related social web applications including blogging and Podcasts. Because of their popularity and

usability, Podcasts are an effective method of distributing content to distance education students. This session will cover a brief history of the Podcast, its tools, and the methods used to deliver content via the Podcast. Podcast preparation, creation, and dissemination will be demonstrated. We will also discuss the integration of Podcasts into the operations at Engineering Distance Education at Iowa State University. Examples of Podcast applications in various higher education settings will be shared. Are Podcasts the future of distance education? Will iTunes become a primary delivery method? What impact will iTunes U, Apple's free, hosted service for universities, have on distance learning? Is Live Streaming Media a thing of the past? Is Web 2.0 ready to take over traditional distance education practices? We will examine these questions as well as the implications of Podcasting in distance learning.

Friday, February 9, 2007

8:30am - 10:00am

CPD 531 Trends and Issues in Continuing Engineering Education

Moderator: Paul Jewell, Engineering Distance Education Programs Manager, Continuing Education, Iowa State University

Discussion Leaders: Pat Hall - Associate Dean, Continuing Education, University of Tulsa; and Linda Krute - Director of Distance Education Programs, College of Engineering, North Carolina State University

How will site-based non-credit or credit-based distance education programs be affected by current trends in engineering education, such as the K-12 initiatives and expansion of distance education degree

programs? Are there new programs that have been created "outside of the box" that may reflect the trends of the future? Where should we be going---down a different path or just maintaining our current directions? Join us for this interactive session where you help to determine the discussion topics.

10:30am - 12:00pm

CPD 532 Using blended/hybrid learning to achieve efficiencies in learning: Lessons learned from industry and higher education

Moderator: Mary Bonhomme - Assistant Provost and Director, Florida Institute of Technology

Presenters: Dr. Barry Willis - Associate Dean for Outreach, College of Engineering and Professor of Education, University of Idaho; and Dr. Randy Gunter - President, 21 Century Learning Solutions, Inc.

The term blended/hybrid learning is used to describe a solution that combines several different delivery methods and different learning activities including face-to-face classrooms, live e-learning, and self-paced learning. The bottom line is that no matter what you call it, this type of learning is a mixture of the various learning strategies and delivery methods that will optimize the learning experience of the user. Industry trainers have used this technique as a way to insure the learning is carried over to the workplace. Higher education institutions are using it as a way to provide courses that are more flexible for students while at the same time reducing seat-time to more efficiently use classroom facilities. This session will feature representatives from industry and higher education discussing the advantages, challenges, design and future directions of blended/hybrid learning.

Kim Scalzo
CIEC Program Chair