

Third Circular CEEA 2013 CONFERENCE

Engineering Leadership Fourth Annual CEEA Conference: 17-20 June, 2013 École Polytechnique – Montréal

This is the third newsletter leading up to the 2013 CEEA Conference to be held in Montreal. The abstract submission deadline has been extended to January 30th – please submit yours now! If you want to make suggestions of any kind – please don't hesitate to let the Conference Chair know at paul.stuart@polymtl.ca. In this newsletter, we focus on new announcements related to engineering and innovation – a critical issue for Canada's quality of life, and one that engineering education can impact.

Montreal – A City of Festivals

Find out why Montreal is called a city of festivals in June! Come and discover Montreal with your family or with your colleagues who are attending the 2013 CEEA Conference. Enjoy Montreal's many festivals and activities - including F1 Canadian Grand Prix, the Jazz Festival, Montreal Fireworks Festival, Le Musée des beaux-arts de Montréal, take a walk on Mount Royal, and enjoy our many outdoor activities (cruises, shows and exhibitions) at the Quays of the Old Port of Montreal.

Important Dates

30 January, 2013 – Extended abstracts submission deadline

11 February, 2013 – Notification of acceptance

15 April, 2013 – Final papers/condensed papers due

Special Activities Related to Innovation

A Call for Action or the so-called “Jenkins report” describes innovation as “new or better ways of doing valued things”. Innovation involves creating or generating new products, processes and services by seeing things using a different perspective, improving existing processes and functions, and disseminating new activities or ideas. Industry leaders maintain that innovation and productivity are linked, and Canada's competitiveness cannot be sustained without innovation. How can Canada's capacity to innovate improve? Two plenary speakers for this year's CEEA Conference have been announced that address aspects of this important issue. Professors *Tom Brzustowski* and *Suzanne Kresta*, will present different perspectives on engineering education and innovation, and the importance of this to the quality of life in Canada.

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Tuesday morning's opening plenary presentation by **Professor Tom Brzustowski** will be "*Identifying design explicitly as a key element of innovation, and what might follow from that*". Tom is a celebrated and unabashed promoter of the importance of engineering design and innovation. He Chairs the Board of the Institute for Quantum Computing at the University of Waterloo, and recently retired as Royal Bank of Canada (RBC) Professor in the Commercialization of Innovation at the Telfer School of Management at the University of Ottawa. Among his many accomplishments, he was President of the Natural Sciences and Engineering Research Council of Canada (NSERC) from 1995 to 2005. In November 2012 Brzustowski published his latest book *Innovation in Canada: why we need more and what we must do to get it*.

Our next plenary presentation will be by **Professor Suzanne Kresta** entitled *Innovation and Rigor in the design process: A both/and possibility*. Suzanne is passionate about undergraduate education, and particularly student learning in the design process, as Professor at the Chemical and Materials Engineering Department at the University of Alberta. She has won numerous awards both for research as well as her leadership in education, most recently the Rutherford Award for Excellence in Undergraduate Education (2011) from the University of Alberta. In her presentation, Suzanne will describe the roles of educator and evaluator, critic and catalyst, expert and learner – and their responsibilities for student learning to a high standard of rigor, critical thinking, and analysis.

As if this isn't enough about innovation, a special session is also being organized by **Professors Doug Ruth** (University of Manitoba) and **Warren Stiver** (University of Guelph) that will address the subject *Standard of Living & Quality of Life Relies on Innovation: Innovation Relies on Engineering Design*. Certain to be interesting and perhaps even controversial, the session will explore mechanisms that will ensure that the role of engineering in the innovation spectrum.

Don't Miss Out – Arrive Early to the CEEA Conference!

The Conference technical program will be held over Tuesday 18 through Thursday 20 June, however be sure to arrive in time for activities on Monday 17 June! This year's CEEA Conference will be hosting **4 different workshops** on Monday for a nominal cost of 50\$ to cover lunch and coffees concerning the following topics (1) Leadership, (2) Accreditation, (3) Introduction to CDIO, and (4) Training for Successful PhD Students. Unfortunately you can't be two places at one time!

Stay tuned for more information on how to register for the workshops.

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Special Session on Engineering Education Community

We will be featuring a new networking session organized by Prof. Sean Maw from Mount Royal University. The main objectives of this session will be to provide cohesion to our engineering education community, potential future employment opportunities to our graduate students, and opportunities for PI collaboration. The session will feature five Canadian universities whose Engineering schools engage in pedagogical research. During the presentation, each school will be asked to talk about their engineering education program, past/current/future projects, the people (faculty and students) engaged in the research, and anything else that makes their research program unique.

Student Program Update

The student program will focus on learning more about the student perspective on engineering education, both from the "receiving" point of view, as well as the "supplier" point of view – involving students who have served as tutors or teaching assistants over the course of their degree. The student program will also host a student panel discussion on what constitutes a positive learning environment in engineering, and the qualities of a good engineering instructor. Interested students should get involved! Contact Professors Jason Tavares (jason.tavares@polymtl.ca) and/or Patrice Farand (patrice.farand@polymtl.ca).

...and stay tuned for news about the student poster competition!

Special Session on CDIO

As described on their website, the “CDIO™ initiative is an innovative educational framework for producing the next generation of engineers. The framework provides students with an education stressing engineering fundamentals set in the context of Conceiving — Designing — Implementing — Operating real-world systems and products”. If you aren’t up-to-date, this is your chance to become more familiar with CDIO. Professor Sylvain Turenne of École Polytechnique will present an Introduction to CDIO and its implementation in engineering program, and Professor Rick Sellens of Queen’s University will present how to use CDIO to meet accreditation requirements from CEAB.

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Special Activities on Development of Complementary Skills for Graduate Students

A growing number of universities recognize the importance of offering extra-curricular training to teach “complementary”, or professional skills to graduate students in order to better prepare them for their careers, whether academic or not. Authors are encouraged to contribute to a special session addressing this theme, by presenting the practices implemented in their institution such as, but not limited to: teaching, content, format, anticipated impact on the success and the “employability” of graduates, etc. For more information please contact Élise Saint-Jacques at elise.saint-jacques@polymtl.ca.