

FINAL CEEA 2012 PROGRAM

Start Time	Duration	Pre-Conference Workshops: Sunday, June 17, 2012	
		Venue: Canad Inns –Fort Garry, 1824 Pembina Highway Tel: (204) 261-7450; 1 (888) 332-2623	
11:30	30m	Registration for Workshops & Conference (Hotel Atrium)	
12:00	1h25	Workshop 1, Part 1: Health & Safety (Ambassador A) Chair: Ron Britton Minerva Canada Vic Pakalnis, Anthony Pasteris, & Graeme Norval	
13:25	10m	Break (Hotel Atrium)	
13:35	1h15	Workshop 1, Part 2: Health & Safety (Ambassador A) Chair: Ron Britton Presenters: Minerva Canada Vic Pakalnis, Anthony Pasteris, & Graeme Norval	
14:50	10m	Break (Hotel Atrium)	
15:00	1h25	Workshop 2, Part 1: CEAB Attributes Engineering Graduate Attribute Development (EGAD)	
		(Ambassador F) Chair: Nariman Sepehri <i>W2-1A: Introduction to Continuous Program Improvement Processes</i> Susan McCahan & Peter Wolf	(Ambassador A) Chair: Doug Ruth <i>W2-1B: Graduate Attribute Assessment as a Course Instructor</i> Brian Frank & Peter Ostafichuk
16:25	10m	Break (Hotel Atrium)	
16:35	1h15	Workshop 2, Part 2: CEAB Attributes EGAD	
		(Ambassador F) Chair: Nariman Sepehri <i>W2-2A: Creating Useful Indicators</i> Brian Frank & Peter Ostafichuk	(Ambassador A) Chair: Doug Ruth <i>W2-2B: What to Look for in an Outcomes-Based Process</i> Susan McCahan & Peter Wolf
17:50	–	End of Workshops	
17:50	10m	Transfer to UofM for Ice Breaker (Private or Public Transportation)	

Start Time	Duration	Venue: University of Manitoba (UofM) Engineering & Information Technology Centre (EITC) Tel: (204) 474-9722; (204) 474-7113	
18:00	3h	Registration for Conference (EITC Atrium)	
18:00	3h	Ice Breaker: BBQ Supper, Wine, & Beer (EITC Atrium) Chair: Doug Ruth MC: Amber Anderson Skrabek Greetings: John Bockstael, President of Bockstael Construction & Chair of the Friends of Engineering (Manitoba) Inc. Entertainment: The smooth jazz sounds of the Brenner Quartet, featuring Gary Grosvenor	
21:00		Transfer to Residencies (Private or Public Transportation)	

Start Time	Duration	Conference Day 1: Monday, June 18, 2012		
		Venue: University of Manitoba (UofM); EITC		
07:30	45m	Registration for Conference, Breakfast (E2-229)		
08:15	15m	<p style="text-align: center;">Conference Welcome & Opening (E3-270) Chair: Doug Ruth, CEEA 2012 Conference Chair Honourable Dave Chomiak Minister of Innovation, Energy & Mines Minister responsible for Manitoba Hydro David Barnard, President of the University of Manitoba & Jonathan Beddoes, Dean of Engineering</p>		
	1h40	MM-1A: Design (E2-130) Chair: Ron Britton	MM-1B: Accreditation (E2-150) Chair: Nariman Sepehri	MM-1C: Teaching (E3-270) Chair: Doug Ruth
08:30	20m	<p>Engaging Students in Meaningful Learning: Understanding Student Perspectives of Engineering Design Education <i>Richard Aleong and David Strong</i> Queen's University (16)</p>	<p>The Attribute Assessment Process at the University of Manitoba <i>Sandra Ingram, Jillian Seniuk Cicek, and Nariman Sepehri</i> University of Manitoba (10)</p>	<p>Challenges in Engineering Education of Cognitive Dynamic Systems <i>Witold Kinsner, Simon Haykin, Yingxu Wang, Witold Pedrycz, Ivo Bukovsky, Bernard Widrow, Andrzej Skowron, Piotr Wasilewski, and Menahem Friedman</i> University of Manitoba, McMaster University, University of Calgary, University of Alberta, Czech Technical University in Prague, Stanford University, Warsaw University, Ben Gurion Univ (119)</p>
08:50	20m	<p>Interdisciplinary Capstone Design Stream at the University of Waterloo: Implementation Plan <i>Cheryl Pearce, Steve Lambert, and Wayne J. Parker</i> University of Waterloo (23)</p>	<p>Rubrics for Accreditation and Outcomes Assessment in Engineering Capstone Projects <i>William Bishop, Oscar Nespoli, and Wayne Parker</i> University of Waterloo (14)</p>	<p>A Laboratory-Centered Approach to Introducing Engineering Students to Electric Circuit and Electric Systems Concepts <i>Cyrus Shafai and Behzad Kordi</i> University of Manitoba (86)</p>
09:10	20m	<p>Developing Teams of Engineering Design and Communication Facilitator-Instructors <i>Jason Foster, Robert Irish, Patricia Kristine Sheridan, Geoffrey Frost, and Alan Chong</i> University of Toronto (84)</p>	<p>Update on the University of Toronto Graduate Attribute Process <i>Susan Mccahan and Lisa Romkey</i> University of Toronto (46)</p>	<p>First-Year Engineering Computing Courses in Canadian Engineering Programs <i>Sean Maw, Janice Miller-Young, and Alexis Morris</i> Mount Royal University (11)</p>
09:30	20m	<p>Engineers-in-Residence: A Bridge to the Future <i>Malcolm Symonds and Ron Britton</i> University of Manitoba (92)</p>	<p>Accreditation, Licensing, and Specialization for Employment <i>Jim Graham and Marolo Alfaro</i> University of Manitoba (37)</p>	<p>Recent Enhancements to the Biosystems Engineering Design Trilogy <i>Danny Mann, Kris Dick, and Sandra Ingram</i> University of Manitoba (13)</p>
09:50	20m	<p>Complex System Design Exposure Through a Satellite Design Competition <i>Dario Schor, Kane Anderson, Cody Friesen, Kris Goodmanson, Morgan May, Arash Fazel-Darbandi, Witold Kinsner, Ron Britton, and Malcolm Symonds</i> University of Manitoba (32)</p>	<p>A Preliminary Analysis of the Use of Student Surveys for Graduate Attribute Assessment <i>Peter Ostafichuk</i> University of British Columbia (62)</p>	<p>Design of an Experiential Learning Course in Sensors, Measurement and Instrumentation <i>Vincent Chan, Ahmad Ghasempour, and Devin Ostrom</i> Ryerson University (12)</p>

10:10	30m	Break (E2-229)		
	1h20	MM-2A: Design (E2-130) Chair: Mal Symonds	MM-2B: Accreditation (E2-150) Chair: Danny Mann	MM-2C: Teaching (E3-270) Chair: Sandra Ingram
10:40	20m	Enhanced Student Performance Through Industry Advisors <i>Dario Schor, Kane Anderson, Cody Friesen, Stephanie Reid, Brady Russell, Mohammadreza Fazel-Darbandi, Arash Fazel-Darbandi, Witold Kinsner, Ron Britton, Malcolm Symonds, Diane Kotelko, Philip Ferguson, Raymoond Harris, Walter Czynnyj, Samuel Kovnats, Maia Schor, Alan Thoren, and Brendan Hughes</i> <i>University of Manitoba (31)</i>	Canadian Approaches to Continual Program Improvement and Graduate Attribute Assessment <i>Brian Frank, Lata Narayanan, Robert Brennan, and Peter Ostafichuk</i> <i>Queen's University (53)</i>	Engineers Teaching Engineering Communication: Integrating Disciplinary Expertise into the Engineering Communication Curriculum <i>Deborah Tihanyi, Penny Kinnear, Kathleen Denbeigh, Ali Esensoy, Asmaa Maloul, Farzan Sasangohar, Wilson Ma, and Leon Yuan</i> <i>University of Toronto (19)</i>
11:00	20m	A Novel Faculty-wide Approach to Teaching Second Year Engineering Design and Professional Practice <i>David Strong and Brian Frank</i> <i>Queen's University (56)</i>	Understanding CEAB's Graduate Attributes Criterion: The University of Manitoba Biosystems' Experience <i>Danny Mann and Jason Morrison</i> <i>University of Manitoba (51)</i>	Undergraduate Writing Assignments in Engineering: Some Preliminary Findings <i>Roger Graves, Anne Parker, and Kathryn Marcynuk</i> <i>University of Alberta (50)</i>
11:20	20m	Client-Based Design (Environmental Assessment) Competition and Instruction in Environmental Engineering <i>Dena Mcmartin and Lisa Watson</i> <i>University of Regina (3)</i>	Rubric Development for Use in Assessing Engineering Graduate Attributes <i>Lisa Romkey and Alan Chong</i> <i>University of Toronto (59)</i>	Evaluation of Model Eliciting Activities as Integrative Experience <i>Brian Frank</i> <i>Queen's University (30)</i>
11:40	20m	Engineering Design vs. Artistic Design: A Discussion <i>W. Ernst Eder</i> <i>Royal Military College of Canada (7)</i>	One-Year Outcome-Based Assessment at Ryerson University: Lessons and Best Practices <i>Said Easa</i> <i>Ryerson University (63)</i>	Continuous Improvement of a Professional Skills Development Course <i>Katherine Acheson, Anish Bhutani, Dale Cudmore, Anne Fannon, Tonya Noel, Gordon Stublely, Peter Teertstra, Alanna Vanden Kroonenberg, and Murray Zink</i> <i>University of Waterloo (48)</i>
12:00	1h	Lunch (University Centre, Marshall McLuhan, Room UC-204)		
13:00	1h15	<p style="text-align: center;">Panel, Part 1, Presentations: Future Directions of Engineering Education (E3-270) Chair: Doug Ruth</p> <p><i>Summary:</i> This session will facilitate a wide-ranging discussion on possible future directions for engineering education in Canada. Four speakers, representing Engineers Canada, the Canadian Federation of Engineering Students, the National Council of Engineering and Applied Science, and the engineering industry in Canada will present their viewpoints on where engineering education should be moving. Each of these talks will be followed by an extended period of discussion from the audience. All talks and comments will be recorded and a meeting transcript will be provided to all attendees. This document is intended to form a foundation document for planning of the next phase of Canadian engineering education development.</p>		
14:15	15m	Break (E2-229)		
14:30	1h15	Panel, Part 2, Discussion: Future Directions of Engineering Education (E3-270) Chair: Doug Ruth		
15:45	1h	Networking & Break (E2-229) Chairs: Ron Britton, Doug Ruth, & Witold Kinsner		
16:45	–	End of Day 1 (Conference)		
17:15	45m	Buses leave for banquet		
18:00	3h	<p>Banquet (Lower Fort Garry) Lower Fort Garry; Menu: Locally-grown cuisine, including bison & bannock Chair: Doug Ruth; MC: Amber Anderson Skrabek Entertainment: Simpson's Folly (18:00 to 20:00); Summer Bear Dance Troupe (20:00 to 20:40)</p>		

		Conference Day 2: Tuesday, June 19, 2012		
Start Time	Duration	Venue: University of Manitoba (UofM); EITC		
08:00	30m	Registration for Conference, Breakfast (E2-229)		
	1h40	TM-1A: Design (E2-130) Chair: David Strong	TM-1B: Accreditation (E2-150) Chair: Brian Frank	TM-1C: Teaching (E3-270) Chair: Ken Ferens
08:30	20m	Importance of First-Year Engineering Design Projects to Self-Efficacy: Do First-Year Students Feel Like Engineers? <i>Jon-Michael J. Booth and Thomas E. Doyle McMaster University (65)</i>	Realizing CEAB Graduate Attributes Using the Case Method <i>David Effa, Steve Lambert, and Oscar Nespoli University of Waterloo (24)</i>	Student-Directed Learning Opportunities for the Development of Life-Long Learning Skills <i>Lisa Romkey University of Toronto (60)</i>
08:50	20m	Writing and Designing a Book about Design and Designing for Young Designers: People Who Traditionally Don't Like to Learn by Reading <i>Brian Burns Carleton University (47)</i>	Integration of Desired Learning Outcomes in a First Year Design Course <i>Marjan Eggermont and Bill Rosehart University of Calgary (39)</i>	Models for Integrating Curricular Innovation: Concordia's Centre for Engineering in Society <i>Govind Gopakumar, Deborah Dysart-Gale, Brandiff Caron, and Robin Drew Concordia University (54)</i>
09:10	20m	Questionnaire for Assessing Design Practices <i>Steeve Gendron, Jean Brousseau, Abderrazak Elouafi and Bruno Urli Université du Québec à Rimouski (UQAR) (22)</i>	CEAB-Inspired Rubrics for Assessing Design Dossiers in Capstone Design Courses <i>Antony Hodgson and Machiel Van Der Loos University of British Columbia (69)</i>	Visualization Performance Through Simulation Based Learning <i>Thomas E. Doyle and David Musson McMaster University (64)</i>
09:30	20m	Case Study in Systematic Design Engineering: Bow Thruster Covers <i>W. Ernst Eder Royal Military College of Canada (8)</i>	Outcomes-Oriented Accreditation: Catalyst for Pedagogical Change <i>Barbara Kerr Dalhousie University (75)</i>	Case Studies: A Tool for Learning <i>Jim Graham and David Kurz University of Manitoba (38)</i>
09:50	20m	Engineering Design from a Safety Perspective <i>Cristian Iorga, Alain Desrochers, and Cécile Smeesters Université de Sherbrooke (5)</i>	Engineering and Social Justice through an Accreditation Lens <i>Katy Haralampides, Dawn Macisaac, and Bruce Wilson University of New Brunswick (76)</i>	Breaking the Barriers of Research Writing: Rethinking Pedagogy for Engineering Graduate Research <i>Janna Rosales, Cecilia Moloney, Cecile Badenhorst, Jennifer Dyer, & Morgan Murray Memorial University of Newfoundland(42)</i>
10:10	30m	Break (E2-229)		
	1h20	TM-2A: Design (E2-130) Chair: Susan McCahan	TM-2B: Accreditation (E2-150) Chair: Andy Fisher	TM-2C: Teaching (E3-270) Chair: Chris Diduch
10:40	20m	Modeling an Abbreviated Product Design Cycle in a First-Year Engineering Design Course <i>Patricia Kristine Sheridan, Jason Foster, and Geoffrey Frost University of Toronto (85)</i>	Assessment of Evidence for the Effectiveness of Different Ideation Practices <i>Antony Hodgson and Machiel Van Der Loos University of British Columbia (70)</i>	An Interactive Web-based Pedagogical Tool for the Training of Engineers in Electrical Engineering <i>Lyne Woodward, Alexandre Hatim-Limoges, Nicolas Constantin, Sylvie Ratté, and Vahé Nerguizian École de technologie supérieure (6)</i>
11:00	20m	Technology, Society and the Future: A Course for Engineering Students on Technology as a Value-Laden, Society-Transforming and Future-Shaping Practice <i>Aezeden Mohamed, Brian Stimpson, and Andy Fisher University of Manitoba (88)</i>	CEAB's Graduate Attribute 3.1.3 Investigations: Is It Really Possible for Engineering Graduates to Possess This Attribute? <i>Leonard Lye Memorial University of Newfoundland(4)</i>	Engineering Portfolios at the University of Toronto: Developing Skills for Communication, Professionalism and Life-Long Learning <i>Deborah Tihanyi, Alan Chong, Penny Kinnear, Lydia Wilkinson, and Chris Ambidge University of Toronto (18)</i>
11:20	20m	CEAB Accreditation: Can Parallel Worlds Meet? <i>Norma Godavari University of Manitoba (40)</i>	Course-Based Learning Outcomes as the Foundation for Assessment of Graduate Attributes <i>Andy Fisher and Darlene Spracklin-Reid</i>	Creating a Separate Introductory Computer Science Course for Engineers: An Experience in Moving from Java to Python

			<i>Memorial University (95)</i>	<i>Jason Morrison and Terry Andres University of Manitoba (82)</i>
11:40	20m	Case Study in Systematic Design Engineering: Wind Tunnel Balance Model Support <i>W. Ernst Eder Royal Military College of Canada (9)</i>	External Assessment of Engineering Programs <i>Ken Ferens University of Manitoba (80)</i>	ePortfolios to Build, Demonstrate and Maintain Professional Competence <i>Donald Presant Learning Agents (20)</i>
12:00	1h	Lunch (University Centre, Marshall McLuhan, Room UC-204)		
	1h40	TA-1A: Design (E2-130) Chair: Mal Symonds	TA-1B: Accreditation (E2-150) Chair: Brian Frank	TA-1C: Teaching (E3-270) Chair: Andy Fisher
13:00	20m	A Qualifications Recognition Program for Internationally Educated Engineers: A Model and Critical Perspectives <i>Marcia Friesen and Catherine Baxter University of Manitoba (93)</i>	Innovative Assessment of CEAB Graduate Attributes in Large Class: Law and Ethics In Engineering Practice <i>Said Easa, Robert Beaumont, Marc Rosen, and Bob White Ryerson University, Osler, Hoskin and Harcourt LLP, University of Ontario Institute of Technology (106)</i>	Teaching Anatomy and Physiology to Engineers in Biomedical Engineering Programs <i>Zahra Moussavi and Brian Lithgow University of Manitoba (99)</i>
13:20	20m	Friends of Engineering: A Positive Connection with Industry <i>Ron Britton, Amber Skrabek, and Doug Ruth University of Manitoba (91)</i>	Embedding Sustainability into the Engineering Curriculum <i>Vivian Neal Simon Fraser University (101)</i>	Guiding Useful Self- and Peer-Assessments of Team-Effectiveness in a First Year Engineering Design Course <i>Patricia Kristine Sheridan, Doug Reeve, and Greg Evans University of Toronto (36)</i>
13:40	20m	Faculty Buy-In and the Bottom-up Approach: A Case Study in Integrated Engineering Curriculum Reform Advocacy and EWB's Global Engineering Program <i>Sal Alajek Eng Without Borders Canada (102)</i>	Assessment-focused Model for Monitoring Student Attributes <i>Esam Hussein, Dawn Macisaac and Chris Diduch University of New Brunswick (77)</i>	Identifying Discipline-specific Vocabulary on Engineering Exams <i>Chirag Variawa and Susan Mccahan University of Toronto (45)</i>
14:00	20m	A Holistic, Interdisciplinary Approach to the Design of a Sustainable Personal Mobility System <i>Ralph Buchal The University of Western Ontario (52)</i>	A Collegial Approach to Integrating the 12 CEAB Attributes <i>Sylvie Doré École de technologie supérieure (41)</i>	Enhancing the Engineering Curriculum through Introducing Holistic Engineering <i>Janelle MacDougall, Alan Ham, and Remon Pop-Iliev UOIT-University of Ontario Institute of Technology (58)</i>
14:20	20m	Hands-On Design and Construction of Light Frame Buildings in the Light Frame Building Systems Course <i>Kris Dick and Qiang Zhang University of Manitoba (83)</i>	JiTT: Effective Pedagogy With or Without Technology? <i>Dorothy Missingham The University of Adelaide (68)</i>	Student Perceptions and Reported Use of Video Recorded Lectures in Engineering Courses <i>Alan Steele and Cheryl Schramm Carleton University (87)</i>
14:40	30m	Break (E2-229)		

	1h20	TA-2A: Design (E2-130) Chair: David Strong	TA-2B: Outreach (E2-150) Chair: Witold Kinsner	TA-2C: Teaching (E3-270) Chair: Susan McCahan
15:10	20m	Impact of Technology on Classroom Size <i>Aezeden Mohamed</i> <i>University of Manitoba (61)</i>	Pre-University Outreach Through a Satellite Design Competition <i>Dario Schor, Kane Anderson, Mohammadreza Fazel-Darbandi, Greg Linton, Matthew Woelk, Cody Friesen, Scott McKay, Katrina Soriano, Chad Stasiuk, Johnson Vilayvanh, Brendan Cade, David Terrazas, Troy Denton, Stephanie Reid, Witold Kinsner, Ron Britton, Dave Weichel, Debbie Leiter, and Rob Striemer</i> <i>University of Manitoba (33)</i>	Enhancing Student Learning Experiences in Introductory Statistics Tutorials/Labs <i>Mohammed Baki and Fouzia Baki</i> <i>University of Windsor, McMaster University (27)</i>
15:30	20m	Integrating Regional Industrial Theme Examples in Process Control Education <i>Jean-Sebastien Deschenes</i> <i>Universite du Quebec a Rimouski (67)</i>	A Program for Building Energy and Environment Awareness for Grade-5 Students <i>Anis Haque, Palash Bagchi, and Preetinder Garcha</i> <i>University of Calgary (94)</i>	In Collisions and Cooperation They Learnt: Finding a Balance between Online and in Person Teaching Tools <i>Peter Weiss, Jason Bazylak, Susan McCahan, and Ken Tallman</i> <i>University of Toronto (28)</i>
15:50	20m	Do Engineering: Anywhere, Anytime <i>Nicola Ricciardi, Julia Dinolfo, and Mark Walters</i> <i>National Instruments (98)</i>	Product Lifecycle Experience for Pre-University Students Through a Hovercraft Competition <i>Debbie Leiter, Patty Whitehill, Larry Leiter, Rae-Lynn Rempel, Bill Noakes, Dario Schor, Andres Chapman, Jeffrey Couch, Brad Wallin, Janet Premak, John Chaput, Jenna Biegun, and Alvina Penner</i> <i>Can Manufacturers & Exporters, Aerospace Consultant, Winnipeg Technical College, Red River College (103)</i>	Enhancing Design Education Using Mid-Program Strategies in Electronic Systems Engineering <i>Doug Wagner, Dave Duguid, and Paul Laforge</i> <i>University of Regina (29)</i>
16:10	20m	Intellectual Property (IP) for Future Engineers <i>Michel Loiselle</i> <i>Can Intellectual Property Office (44)</i>	Teachers-In-Service Program in Manitoba <i>Witold Kinsner, Dario Schor, Kathryn Marcynuk, and Troy Denton</i> <i>University of Manitoba (97)</i>	SELECT: Student Engagement, Leadership Education, Career Training <i>Matt Wright</i> <i>McMaster University (2)</i>
16:30	1h	Exhibitors Workshop: Educational Tools (E2-130) <i>Paul Riddell and Kent Powell</i> <i>Progressive Educational Systems and Amatrol</i>		
17:30	–	End of Day 2 (Conference)		
19:00	2h	Public Talk: Terry Fallis (E3-270) Chair: Ron Britton (Free, but registration required; no conference dinner)		

		Conference Day 3: Wednesday, June 20, 2012		
Start Time	Duration	Venue: University of Manitoba (UofM); EITC		
08:00	30m	Registration for Conference, Breakfast (E2-229)		
	1h40	WM-1A: Teaching (E2-130) Chair: Chris Diduch	WM-1B: Teaching (E2-150) Chair: Ken Ferens	WM-1C: Teaching (E3-270) Chair: Witold Kinsner
08:30	20m	Take Out Your Cell Phones; Class is Starting <i>Jason Bazylak, Susan Mccahan, Peter Weiss, and Phil Anderson</i> University of Toronto (21)	The Role of Biology in an Engineering Program <i>Danny Mann</i> University of Manitoba (66)	Complexity Made Simple <i>Philippe Kruchten</i> University of British Columbia (49)
08:50	20m	The iPad 2 as a Tool for Effective Teaching While Replacing Conventional Technology <i>Ramanathan Sri Ranjan</i> University of Manitoba (25)	Introduction to the Fourier Transform: Applied Image Processing Laboratory Examples <i>Gabriel Thomas</i> University of Manitoba (74)	Implementation of a Chua Circuit to Demonstrate Bifurcations and Strange Attractors in Class <i>Ahmad Byagowi and Witold Kinsner</i> University of Manitoba (96)
09:10	20m	Experience with Online Delivery of an Engineering Technical Elective Course <i>Jim Wallace and Harpreet Dhariwal</i> University of Toronto (26)	Culture and Communication in the Engineering Classroom <i>Kathleen Clarke</i> University of Manitoba (43)	The Coriolis Effect: What's Going On? <i>A.T. Dolovich, E.J. Llewellyn, G.J. Sofko, and Y.P. Wang</i> University of Saskatchewan (55)
09:30	20m	Conceptualizations and Management of Tensions with PBL Implementations in the Early Years of Engineering Education <i>Angela Van Barneveld and Johannes Strobel</i> Purdue University (79)	Teaching an Engineering Course Using Self Assessment <i>Aezeden Mohamed and Andy Fisher</i> University of Manitoba (57)	Complementing Classroom Experience with Student-Run Workshops <i>Dario Schor, Troy Denton, Matthew Sebastian, Matthew Woelk, Frank Serafin, Craig Nemeth, Pawel Glowacki, Kiral Poon, Kane Anderson, Greg Linton, Arash Fazal-Darbandi, Witold Kinsner, Allan McKay, Kenneth Biegun, and Udaya Annakkage</i> University of Manitoba (34)
09:50	20m	Description of Technical Electives That Prepare Engineers for Careers in the Medical and Health Care Professions <i>Danny Mann, Jacquie Ripat, Art Quanbury, Jason Morrison, and Jitendra Paliwal</i> University of Manitoba (72)	The Application of Support Mechanisms to Increase the Success of Aboriginal Students <i>Randy Herrmann</i> University of Manitoba (90)	Software Defined Radio Provides New Opportunities for Hands-on RF Education <i>Nicola Ricciardi, Erik Luther, Sachin Katti, and Julia Dinolfo</i> National Instruments (100)
10:10	30m	Break (E2-229)		
	1h20	WM-2A: Teaching (E2-130) Chair: Sandra Ingram	WM-2B: Teaching (E2-150) Chair: Marcia Friesen	WM-2C: Teaching (E3-270) Chair: Ramanathan Sri Ranjan
10:40	20m	The Effect of Extreme Inter-cultural Experiences on the Development of the Professional Leadership and Design Skills of Future Engineers <i>Florin Gheorghe and H.F. Machiel Van der Loos</i> University of British Columbia (78)	Teaching Embedded System Design <i>Ken Ferens</i> University of Manitoba (107)	Teaching Interfacing for Real-Time Systems: Now and Tomorrow <i>Witold Kinsner, Dario Schor, and Ken Biegun</i> University of Manitoba (105)
11:00	20m	Engineering Educators Sharing Lessons Learned about PBL Implementation <i>Angela Van Barneveld</i> Purdue University (81)	Outlining a Relevant Undergraduate Course on Computer Vision <i>Gabriel Thomas</i> University of Manitoba (89)	Learning How to Design a Graphics Processor <i>Witold Kinsner, Dario Schor, Samantha Olson, and Mount-First Ng</i> University of Manitoba (104)
11:20	20m	A Survey Method for Ergonomic Classroom Chair Design <i>Negin Ozve Aminian and Fairuz Izzuddin Romli</i> University Putra Malaysia (17)	Is Philosophical Mindset a Requisite for Teaching and Understanding the Engineering Concepts? <i>Siamak Kazemzadeh Hannani Sharif</i> University of Technology (1)	An Understanding of Self and Others: A Unique Approach to Teaching Teamwork and Critical Thinking in Undergraduate Engineering <i>Dorothy Missingham</i> The University of Adelaide (71)

12:00	1h15	Lunch & CEEA Annual Meeting (University Centre, Marshall McLuhan, Room UC-204) Chair: Ron Britton
13:10	5m	Closing of the CEEA 2012 Conference; Doug Ruth
13:15	–	End of Day 3 & End of Conference at the University

Additional Activities

	2h15	Local University Lab Tour (Optional); EITC (Free Registration at the Conference)
13:30	15m	Lab 1: Biosystems (Dan Mann; E3-270)
13:45	15m	Lab 2: Robotics/Manufacturing Lab (Subramaniam Balakrishnan; E2-282)
14:00	15m	Lab 3: Antenna Lab (Lot Shafai; E1-566)
14:15	15m	Lab 4: Biomedical Lab (Zahra Moussavi; E3-518)
14:30	15m	Lab 5: Nanotechnology Facilities (Cyrus Shafai; E3-450)
14:45	15m	Lab 6: RF Systems (Greg Bridges; E3-488)
15:00	15m	Lab 7: Power Systems Lab (Ani Gole; E1-468)
15:15	15m	Lab 8: Robotics/Walkers Lab (Christine Wu; E1-451)
15:30	15m	Lab 9: Robotics/Control Lab (Nariman Sepehri; E1-322)

		City Tours (Optional); Winnipeg (Registration at the Conference)
14:05	2h	Night at the Forks (Bus 1 departs)
15:30	1h	Tour to the Legislative Building (Bus 2 departs)
16:00	1h	Hermetic Code (Fee required; Transportation on Bus 1 or 2)
17:00	1h	Tour to the new Canadian Museum of Human Rights (Transportation on Bus 1 or 2)

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