CANADIAN ENGINEERING EDUCATION ASSOCIATION
ASSOCIATION CANADIENNE DE L'ÉDUCATION EN GÉNIE

Canadian Engineering Education Association Conference

BUILDING FOUNDATIONS FOR STUDENT SUCCESS

CEEA-ACEG 2018 in Vancouver, BC
June 3 – 6, 2018

CONFERENCE PROGRAM

Sunday, June 3, 2018

All Sunday workshops will be held in Orchard Commons (6363 Agronomy Rd, V6T 1Z4)

Registration Desk will be open in Orchard Commons from 8:00 am to 4:00 pm, and open at Museum of Anthropology from 6:30 pm to 8:30 pm.

Sunday morning workshops:

Venue	ORCH 4004	ORCH 4016	ORCH 3018	ORCH 4018	ORCH 3074	ORCH 4074
Time	Workshop title (registration code)					
8:45 – 10:15	Greening Engineering in a Learner-Centered Participatory Environment **(1C)**	WeBWorK for beginners part I: Using WeBWorK **(1B)**	Outcome-Based Assessment and Continuous Improvement Made Simple **(1D)**	Community Engaged Learning in Engineering: Exploring Challenges and Effective Practise **(1E)**	IER	
10:15 – 10:30	Coffee Break					
10:30 – 12:00	STEM in 3 Acts: Building Engineering Identity in Rural Students **(2A)**	WeBWorK for beginners part II: Developing in WeBWorK for the Open Problem Library **(2B)**	"Aware and engaged": Graduate Attributes and you **(2D)**	"You want to do what??" Hands-on activities for large groups in non-lab space **(2E)**	IER	"Designing and Giving Effective Presentations: Building a Shared Understanding With Your Presentations" **(2C)**

12:00 – 1:00 Lunch

Sunday afternoon workshops:

Venue	ORCH 4004	ORCH 4016	ORCH 3018	ORCH 4018	ORCH 3074	ORCH 4074
Time	Workshop title (registration code)					
1:00 – 2:30	The Conrad Games in Engineering: Encouraging Entrepreneurship and Innovation Mindsets **(3B)**	Teaching Science Communication via Gwyneth Paltrow (and other Case Studies in Popular Science) **(3E)**	EGAD Workshop 1: Running a continuous improvement process in engineering **(3D)**	Creating Engaging Video Content to Support Curriculum Delivery **(3C)**	IER	Teaching Ideation to Engineering Students in Order to Foster Better Ideas and More Socially Responsible Leadership **(3A)**
2:30 – 2:45	Coffee Break					
2:45 – 4:15	Fostering Interdisciplinary Competencies in Engineering Design through Co-curricular Design Reviews **(4B)**	Systematic Reviews in Engineering Education Research: An Emerging Methodology. Part 1 **(4C)**	EGAD Workshop 2: Working with Data **(4D)**	IET 1 Designing Great Courses	IER Building a Community of Reflective and Responsive Researchers **(4E)**	Supporting blended learning through interactive creativity **(4A)**
4:15 – 4:30	Coffee Break					
4:30 – 6:00		Asset mapping for engineering leadership: using unexpected allies to expand initiatives (a NICKEL workshop) **(5A)**	How to Survive a CEAB Visit **(5D)**	IET 2 Building a Solid Foundation Goals, Outcomes, and Course Planning	IER Conducting a Systematic Review in Engineering Education Research. Part 2 **(5C)**	Coaching and Facilitation for Teaching Engineering Design **(5B)**

6:30 – 9:00 Welcome Reception: Museum of Anthropology (MOA)

Monday, June 4, 2018

Plenary sessions are scheduled in the Life Sciences Centre, LSC (2350 Health Sciences Mall V6T 1Z3)

All technical sessions, poster sessions, meetings and social events will be held in the Chemical and Biological Engineering Building, CHBE (2360 East Mall V6T 1Z3)

Registration desk opens at 7:30 am in Chemical and Biological Engineering Building, CHBE

Lunch will be served in the Fred Kaiser Building, KAIS (2332 Main Mall V6T 1Z4)

Monday morning events:

8:00 – 8:45 LSC1	**Conference Plenary Session: Welcome and Opening Remarks** Dr. Andrew Szeri, UBC Provost and Vice-President Academic Dr. James Olson, Dean Faculty of Applied Science Dr. John Donald, CEEA-ACEG President
8:45 – 9:45 LSC1	**Conference Plenary Session: Keynote Speaker** Dr. Cynthia Atman, University of Washington ***"Dancing with Ambiguity" and Other Ideas for Teaching Engineering Students to Think Broadly***

9:45 – 10:00 Coffee break

10:00 – 11:30 Technical Session TS-1

TS1-A Podium presentations: "Pedagogy I", venue CHBE 101	
10:00 - 10:12	"*From Complaining to the Associate Dean to Leading Innovation and Entrepreneurship in the Engineering Classroom*" **Alexander Bruton**
10:18 - 10:30	*"Will that be on the exam? - Student perceptions of memorization and success in engineering"* **Ryan Clemmer, Karen Gordon and Julie Vale**
10:36 - 10:48	*"A networked social change lab approach to re-imagining engineering education"* **Brian Frank, Bob Brennan, Deena Salem, Laurent Mydlarski and Stephen Mattucci**
10:54- 11:06	*"Unleashing Knowledge Creation and Sharing in a Reflective Open Education"* **Riadh Habash**
TS1-B Podium presentations: "Diversity & Identity I", venue CHBE 103	
10:00 - 10:12	*"The Experiences of Women in Undergraduate Engineering"* **Natalie Mazur, Bronwyn Chorlton and John Gales**

10:18 - 10:30	*"Becoming Aware of Engineering Culture: Toward Sculpting a New Way of Acting, Being, and Thinking in the World"* **Scott Flemming**
10:36 - 10:48	*"Diversity Research in an Engineering Technology Program: Promising Practices for Diversity Research Initiatives in Post-secondary Education"* **Jennifer Long and Kostas Apostolou**
10:54 - 11:06	*"Exploring the Conflict Between an Engineering Identity and Leadership"* **William Schell, Bryce Hughes and Brett Tallman**
11:12 - 11:24	*"Testing an engineering design teaching technique for improving female self-efficacy and belonging in Physics 11 classrooms"* **Katherina Tarnai-Lokhorst**
TS1-C Panel presentations: "Experiential & Hands-on Learning I", venue CHBE 102	
10:00 - 10:06	*"Experiential Learning vs Systematic Prescriptions in Engineering Design: A Crossroads for Education"* **Gary Gress, Simon Li and Robert Brennan**
10:09 - 10:15	*"A new laboratory for the students of the Faculty of Engineering at the University of Sherbrooke to support the characterization and the validation of their prototypes"* **Jonathan Nadeau, Alain Desrochers and João Pedro Trovão**
10:18 - 10:24	*"New technical elective recognizing experiential learning in competitive engineering teams: A report from the inaugural offering of the course"* **Elizabeth Hassan**
10:27 - 10:33	*"Strengthening Students Mechanics Knowledge through Instructional Videos of Hands-on Activities"* **Kayleanna Giesinger, Chloe Gibson, Wayne Brodland and Rania Al-Hammoud**
10:36 - 10:42	*"Introducing and Sustaining Traditional Fabrication Methods in the Context of Teaching Prototyping for Engineering Design"* **Patrick Dumond**
TS1-D Lightning talks: "Student Well-being", venue CHBE 202	
10:00 - 10:06	*"Engineering Preparatory Programs: Students' Academic Motivation"* **Aharon Gero and Gershon Abraham**
10:12 - 10:18	*"Effects of a Fall Reading Break on First Year Students' Course Performance in Programming"* **Carol Hulls, Chris Rennick, Mary Robinson and Samar Mohamed**

10:24 - 10:30	*"Effect of a Mini Lesson on Self-Regulated Learnin on Sudents' Learning"* **Amir Maleki, Jonathan Verrett and Constanza Picollo**
10:36 - 10:42	*"Being a C-student is the new normal: a literature review on grades, self-worth, and mental wellbeing"* **Agnes d'Entremont, Juan Abelló and Eisha Sharda**

11:30 – 12:15 Lunch (KAIS 2020/2030)

12:15 – 1:00 SIG meetings (details provided by SIG chairs)

12:15 – 1:00 Students "meet and greet" (CHBE 103) – **Students only**

Monday afternoon workshops:

1:00 – 2:30 CHBE 202	**IET3** **How People Learn**
1:00 – 2:30 CHBE 102	**Reflection workshop** Jennifer Turns, University of Washington

1:00 – 2:30 Poster Session 1 (CHBE Lobby)

"Indigenizing the Applied Science Curriculum: First Steps"
Jannik Eikenaar

"Common First-Year Engineering Curriculum in British Columbia"
Brian Dick, Yang Cao, Jennifer Kirkey, Margaret Gwyn, Barbara Rudecki, Elroy Switlishoff and Tara Todoruk

"A Team Health Self-Assessment Tool and Workshop for Engineering Student Teams"
Ada Hurst, Maria Barichello, Erin Jobidon and Rania Al-Hammoud

"Project-based Approach in a First-Year Engineering Course to Promote Project Management and Sustainable Energy Development"
Pooya Taheri and Csilla Tamas

"Evaluation of Student Experiences in a Developed Blended Learning Course in Engineering"
Mohammadali Sepehri, L. Francisco Vargas M. and Samer Adeeb

"Using Concept Maps to Facilitate Deep Learning in a Third Year Geomatics Engineering Course"
Elena Rangelova

"Examining Student Learning Outcomes and Engagement in Engineering Entrepreneurship Education Programs"

Prateek Shekhar, Aileen Huang-Saad and Julie Libarkin

"Promoting Career Planning Through the Use of an Engineering Experience Evaluation for Licensure"
Martin Bollo

"Using Internships to Enhance Engineering Programs – the Case Study of an Industrial Partner"
Antoine Côté

"Developing a Laboratory for Engineering Education in Mechatronics"
Alireza Fazlirad and Robert Brennan

"Sustainability within Technical Engineering Curriculum – A Hydraulic Fracturing Module in Fluid Mechanics"
Ryan Anderson, Carolyn Plumb and Paul Gannon

"Computer-supported collaborative knowledge building using a sustainability assessment framework and Microsoft Teams"
Ralph Buchal

"WeBWorK as an open online homework system in a second-year material and energy balances course"
Jun Sian Lee and Jonathan Verrett

"Designing a mobile makerspace: A strategy for increasing diversity by offering engineering outreach workshops to underrepresented youth"
Scott Compeau

2:30 – 2:45 Coffee break

2:45 – 4:15 Technical Session TS-2

TS2-A Podium presentations: "Accreditation", venue CHBE 101	
2:45 - 2:57	*"Graph-based approach to model the dependency information of graduate attributes for supporting the accreditation process"* **Simon Li, Bob Brennan and Anders Nygren**
3:03 - 3:15	*"Cohort Analysis and Reporting for Graduate Attribute Assessment"* **Aneta Traikova and Liam Peyton**
3:21 - 3:33	*"Graduate Attribute Based Continuous Course Improvement in a Blended Learning Engineering Design Course – A Writing Improvement Case Study"* **Marnie Jamieson and John M. Shaw**
3:39 - 3:51	*"OBACIS IV: The Analytics"* **Mohamed Ismail**

TS2-B Podium presentations: "Communication", venue CHBE 102	
2:45 - 2:57	*"The Right Tools for the Job: Discipline-Specific Language-Learning for First-Year International Engineering Students"* **John Pringle and Gabriel Potvin**
3:03 - 3:15	*"Making writing practices visible and sustainable in the engineering curriculum: a practice architectures theory analysis"* **Rosalie Goldsmith and Keith Willey**
3:21 - 3:33	*"Preliminary Results of a Study Assessing Engineering Students' Formation of Identity as Rhetorician"* **Debora Rolfes, Corey Owen and Julie Hunchak**
3:39 - 3:51	*"Integrating Writing and Engineering Instruction to build a foundation for student success in their engineering disciplines"* **Michael Schoen, Tatiana Teslenko, Estella Qi and Johnathan Verrett**
TS2-C Lightning talks: "Student Assessment / Continual Improvement", venue CHBE 202	
2:45 - 2:51	*"Quantifying "deep learning" in geomatics engineering by means of classroom observations"* **Elena Rangelova, Ivan Detchev and Scott Packer**
2:57 - 3:03	*"Exams and Student Feedback: An experiment in Marking Efficiencies"* **Denard Lynch and Andrew Kostiuk**
3:09 - 3:15	*"Engineering Instructor Use and Interpretation of Rubrics in a Large Scale Undergraduate Independent Research Course"* **Nikita Dawe, Alan Chong and Lisa Romkey**
3:30 - 3:36	*"Peer Tutoring in Project-Based Course"* **Jean Brousseau and Andrée Sano-Gélinas**
3:42 - 3:48	*"Peer Assessment: Preparing for Professional Practice"* **Denard Lynch**
3:54 - 4:00	*"Comprehensive Assessment of Capstone Senior Design Course Comprised of Students from Different Engineering Program Majors"* **Prathivadi Ravikumar, Blair McDonald, William Pratt, Il-Seop Shin and Khaled Zbeeb**
TS2-D Special session: "Meta-cognition", venue CHBE 103	
2:45 – 2:51	*"Windmills of Your Mind: Metacognition and Lifelong Learning"* **Greg Evans**

2:54 – 3:00	*"Thinking About Learning – Inferences from How We Support Curriculum Design"* **Gordon Stubley**
3:03 – 3:09	*"Developing Student Meta-Cognition in a Design Course"* **Alan Steele**

4:30 – 6:00 Technical Session TS-3

TS3-A Podium presentations: "Creativity", venue CHBE 103	
4:30 - 4:42	*"A measured educational experience developing creativity with graduate and undergraduate engineering students"* **Sophie Morin, Jean-Marc Robert and Liane Gabora**
4:48 - 5:00	*"Componential Theories of Creativity: A Case Study of Teaching Creative Problem Solving"* **Chris Rennick and Kenneth N McKay**
5:06 - 5:18	*"Extending Creative Activity in the Engineering Classroom"* **Ken Tallman**
5:24 - 5:36	*"Creative Confidence and the Arts: Measuring a Potential Contributing Factor to Students' Motivation to Engage in Engineering Creativity"* **Hannah Smith and David Strong**
TS3-B Lightning talks: "First Year Math and Science", venue CHBE 202	
4:30 - 4:36	*"Implementation and Student Assessment of a Two-stage Midterm Exam in a First-year Physical Chemistry Course for International Engineering Students"* **Roza Vaez Ghaemi and Gabriel Potvin**
4:42 - 4:48	*"A Study of Blended Learning in a First-Year Chemistry for Engineers Course"* **Jason Grove and Eline Boghaert**
4:54 - 5:00	*"Student usage of short online single-topic videos in a first-year engineering chemistry class"* **Yasaman Delaviz and Scott D. Ramsay**
5:15 - 5:21	*"So you need to choose a textbook: An investigation into first-year engineering calculus textbooks in Canada"* **Sasha Gollish, Anne Mather and Bryan Karney**
5:27 - 5:33	*"Measuring the Connection Between Mathematics and Engineering"* **Sasha Gollish and Bryan Karney**

TS3-C Special session: "Labour Market", venue CHBE 101 (4:30 – 6:00)	
"Charting the University-to-Work Transition in Engineering: A National Analysis by Field, Gender, Race and Province" **Serhiu Kovalchuk, Michael Klassen, Jinli Yang, Jamie Ricci and Doug Reeve**	
TS3-D Panel presentations: "Problem Solving and Problem-based learning", venue CHBE 102	
4:30 - 4:36	*"Making Undergraduate Research Experience More Productive"* **Roes Budiman and Ryan Zheng**
4:39 - 4:45	*"Engineering success: Using problem-based learning to develop critical thinking and communication skills in a Chemical Engineering classroom"* **Lydia Wilkinson and Jennifer Farmer**
4:48 - 4:54	*"Supporting the Development of Problem Solving Skills in an Integrated Electromagnetics and Vector Calculus Course"* **Carol Jaeger, Philip Loewen and Negar Harandi**
4:57 - 5:03	*"An Engineering Design Course to Develop and Assess Critical Thinking and Problem Solving"* **Ryan Mulligan, Natalie Simper and Nerissa Mulligan**

6:00 – 7:00 SIG Meet and Mingle (CHBE Lobby)

ALL ARE WELCOME, JOIN US AND LEARN ABOUT THE SIGs

Tuesday, June 5, 2018

Plenary sessions are scheduled in the Life Sciences Centre, LSC (2350 Health Sciences Mall V6T 1Z3)

All technical sessions, poster sessions, and meetings will be held in the Chemical and Biological Engineering Building, CHBE (2360 East Mall V6T 1Z3)

Registration desk opens at 7:30 am in Chemical and Biological Engineering Building, CHBE

Lunch will be served in the Fred Kaiser Building, KAIS (2332 Main Mall V6T 1Z4)

Tuesday morning events:

7:30 – 8:15 SIG meetings (details provided by SIG chairs)

8:15 - 8:45 LSC1	**Conference Plenary Session: Lifetime Service Award Recipient** Dr. Ron Britton, Professor Emeritus, University of Manitoba ***"Helping Students Transition - from "being" a student to "becoming" an Engineer"***
8:45 – 9:45 LSC1	**Conference Plenary Session: Keynote Speaker** Deanna Burghart, President of Indigenous Engineering Solutions Inc. ***"Indigeneering"***

9:45 – 10:00 Coffee break

10:00 – 11:30 Technical Session TS-4

TS4-A Podium presentations: "Curriculum", venue CHBE 102	
10:00 - 10:12	*"A multi-institutional investigation of first-year engineering tutorials: content, pedagogy, and effectiveness"* **Shelir Ebrahimi, Chirag Variawa and Jeffrey Harris**
10:18 - 10:30	*"Using an Academic Plan Model to Analyze Canadian Engineering Leadership Curriculum"* **Mike Klassen and John Donald**
10:36 - 10:48	*"Determining the Content Validity of a Biosystems Engineering Program"* **Jillian Seniuk Cicek, Robert Renaud, Danny Mann and Sandra Ingram**
10:54 - 11:06	*"Engineering Co-op and Internship Experiences: The Roles of Workplaces, Academic Institutions and Students"* **Qin Liu, Serhiy Kovalchuk, Cindy Rottmann and Doug Reeve**
11:12 – 11:24	*"A snapshot of engineering education in Canada"* **Nancy Nelson and Bob Brennan**

TS4-B Podium presentations: "Design I", venue CHBE 202	
10:00 - 10:12	*"Knowledge structures in engineering design: integrating multiple 'ways of knowing'"* **Nicky Wolmarans**
10:18 - 10:30	*"Building Better Together: Interprofessional reflections on educating students when designing assistive technology"* **T Claire Davies, Elizabeth Delarosa, Susanne Murphy and Catherine Donnelly**
10:36 - 10:48	*"Meaningful problems in students' design projects: Relational, perceptual, and moral tensions"* **Minha Ha and Aleksander Czekanski**
10:54 - 11:06	*"Teaching Engineering Innovation, Design, and Leadership in a Community of Practice"* **Marnie Jamieson and John M. Shaw**
TS4-C Panel presentations: "Diversity & Identity II", venue CHBE 103	
10:00 - 10:06	*"Indigenous Knowledge, Perspectives, and Design Principles in the Engineering Curriculum"* **Marcia Friesen and Randy Herrmann**
10:09 - 10:15	*"Promoting Innovation by Women through Engineering Entrepreneurship Courses: An Assessment of Entrepreneurial Self-Efficacy"* **Prateek Shekhar, Anastasia Ostrowski, Aileen Huang-Saad and Julie Libarkin**
10:18 - 10:24	*"The Underrepresentation of Women in Technical Institutions in North America: A Review"* **Katherine Golder and Joanna Wallace**
TS4-D Panel presentations: "Technology in the classroom", venue CHBE 101	
10:00 - 10:06	*"Improvements in Transport Phenomena Teaching"* **Pierre Proulx and Francis B. Lavoie**
10:09 - 10:15	*"Student usage of higher production value multi-camera lecture recordings in a first-year engineering chemistry class"* **Yasaman Delaviz and Scott D. Ramsay**
10:18 - 10:24	*"Improving Class Participation by Using an Online Interactive Platform"* **Mahsa Khalili and Peter Ostafichuk**

11:30 – 1:00 Lunch (KAIS 2020/2030)

Tuesday afternoon workshop:

1:00 – 2:30 CHBE 202	**IET4** **Learning Activities**

1:00 – 2:30 Poster Session 2 (CHBE Lobby)

"Research and Education in Accessibility, Design, and Innovation: Integrating Post-Secondary Training in Accessibility"
Mojtaba Ahmadi, Adrian Chan, Claire Davies, Lois Frankel, Audrey Girouard, T. C. Nicholas Graham, Yvan Labiche, Edward Lemaire, Jesse Stewart and Chantal Trudel

"Utilizing the CDIO syllabus to reveal CEAB Graduate Attribute Pathways in a Mechanical Engineering Curriculum"
Alexandra Meikleham, Robert Brennan and Ron J. Hugo

"A Python Computer Science Course Taught with a New Web Platform"
Francis B. Lavoie and Pierre Proulx

"An experimental lab to enhance undergraduate electromagnetics education"
Elise Fear and David Garrett

"Reduced Complexity Processor for Teaching Computer Architecture"
Hamid S. Timorabadi

"Three Birds, One Stone: A Pedagogy and Accreditation Driven Redesign"
Bryson Robertson, Margaret Gwyn and Lillanne Jackson

"Graduate Attribute Assessment Practice in Canadian Engineering Programs"
Monique Sullivan and Robert W Brennan

"OBACIS V: The Accreditation Reporting and The CEAB Mock-Ups"
Mohamed Ismail

"Integrated Learning in First-Year Engineering: Preliminary Findings and Impressions from a New Project-Based Design Course"
Colin Mcdonald, Kathryn Grandfield, Calvin Zhu, Christie Condron and Roberta Dolling-Boreham

"An Analysis on the State of Wellness of Engineering Undergraduate Students"
Quentin Golsteyn, Diana Sofia Nino Sua, Gillian Fung-Quon, Cameron Yuen, Jordan Farrow and Cecilia Ruigrok

"Assessing the Individual in Team Based Design Projects"
Roger Carrick and Aleksander Czekanski

"Student preference between single-box and multi-box homework problem answers using WeBWorK, an online homework system" **Sayed Mohammad Hashem Jayhooni, Carly Jones and Agnes d'Entremont**
UNDERGRADUATE STUDENT POSTER COMPETITION

2:30 – 2:45 Coffee break

2:45 – 4:15 Technical Session TS-5

TS5-A Podium presentations: "Assessment", venue CHBE 101	
2:45 - 2:57	*"Exploring Challenges of Assessment in Engineering Problem Solving, A Thematic Analysis"* **Bahar Memarian and Susan McCahan**
3:03 - 3:15	*"Network-Based Approach to Assessment of Cognitive Skills"* **Nerissa Mulligan, Natalie Simper and Brian Frank**
3:21 - 3:33	*"Identification of Ineffective Team Members Using Normalized Peer Ratings"* **Michel Couturier and Guida Bendrich**
3:39 - 3:51	*"What Makes a Good Assessment? Assessments for Learning"* **Andrew Milne and Michael Stachowsky**
3:57 - 4:09	*"Assessment of Individual and Teamwork Attributes in Undergraduate Engineering Students"* **Katherine Gibbard, Alyssa Grocutt, Adam Turner, Tom O'Neill, Robert Brennan and Simon Li**
TS5-B Lightning talks: "Design II", venue CHBE 202	
2:45 - 2:51	*"Combining Hierarchical Task Analysis and Usage Scenarios to Help Embed Human Factors in Design"* **Filippo Salustri and Patrick Neumann**
2:57 - 3:03	*"Adapting waterfall design to an eight-month capstone course"* **Hossam Sadek, James Smith and Franz Newland**
3:09 - 3:15	*"Impact of Scaffolding Strategies for Teaching Engineering Design in a Collaborative Project-based Learning Environment"* **Mohamed Galaleldin, Justine Boudreau and Hanan Anis**
3:30 - 3:36	*"Design of a Completely New First Year Engineering Program at the University of Saskatchewan"* **Sean Maw, Joel Frey and Bruce Sparling**

3:42 - 3:48	*"A Cornerstone Design Module in First Year Engineering"* **Peter Ostafichuk, David Sommer and Carol Jaeger**
TS5-C Panel presentations: "Experiential & Hands-on Learning II", venue CHBE 102	
2:45 - 2:51	*"Tackling Kirkpatrick: Creating and Improving a First-Year Electromagnetics Activity"* **Derek Wright**
2:54 - 3:00	*"Hardware Skills for Hardware Engineers"* **Arrchana Pradeepan and Derek Wright**
3:03 - 3:09	*"Use of Cyber Attacks as a Case Study for Design Projects in an Undergraduate Process Control Course"* **Haoyu Wu, Maja Mujcin and Sidney Omelon**
3:12 - 3:18	*"It's not pronounced Mahna-mahna": Creating a hands-on activity to teach first-year engineers about pressure measurement"* **Mary Robinson and Eugene Li**
3:21 - 3:27	*"Linking Academic Courses with Practical Hands-on Experience for Civil, Environmental and Geological Engineering Students"* **Christopher Muirhead, Rania Al-Hammoud, James Craig and Bruce MacVicar**
TS5-D Panel presentations: "Graduate Attribute Assessment", venue CHBE 103	
2:45 - 2:51	*"A Three-Level Software Support Platform for the Graduate Attribute-Curriculum Improvement Process"* **David Taylor**
2:54 - 3:00	*"How to Assess Lifelong Learning"* **Mehrdad Pirnia, Ken McKay, Rania Al-Hammoud, Derek Wright, Jason Grove, Andrew Milne and Reem Roufail**
3:03 - 3:09	*"Using Coop Performance Evaluations for Graduate Attribute Assessment"* **Jason Grove, Derek Wright, Hannah Negami, Rania Al-Hammoud, Andrew Milne, Mehrdad Pirnia, Reem Roufail and Christine Moresoli**
3:12 - 3:18	*"Fuzzy logic in engineering education and evaluation of graduate attributes"* **Mory Ghomshei**

4:30 – 6:00 Technical Session TS-6

TS6-A Podium presentations: "Life-long Learning", venue CHBE 101	
4:30 - 4:42	*Using Qualitative Methods to Holistically Assess and Evaluate CEAB's Lifelong Learning Attribute in One Major Canadian University's Engineering Program"* **Rachel Huh and Lisa Stowe**
4:48 - 5:00	*"Assessing Life Long Learning Utilizing Coop Work Term Report"* **Reem Roufail and Carolyn G. MacGregor**
5:06 - 5:18	*"Alumni Perspective on their Undergraduate Engineering Leadership Experience and Important Career Skills"* **Robyn Paul and Lynne Cowe Falls**
TS6-B Lightning talks: "Non-technical skills / student self-assessment", venue CHBE 202	
4:30 - 4:36	*"The Development of GENE 101 – A 'Strategies and Skills for Academic Success' Course for First Year Engineering Students at Waterloo"* **Bill Owen, Maria Barichello and Andrea Prier**
4:42 - 4:48	*"Crossing Boundaries: Developing Transdisciplinary Skills in Engineering Education"* **Tanya Tan, Susan Nesbit, Naoko Ellis and Peter Ostafichuk**
5:06 - 5:12	*"Implementing reflective writing in large non-technical engineering courses"* **Lawrence Chen and Maria Orjuela-Laverde**
5:18 - 5:24	*"The Self-Reported Confidence and Proficiency Levels in Communication Skills: A Comparison of Senior Capstone Students and Undergraduate Students in a Technical Communication Course"* **Anne Parker and Kathryn Marcynuk**
5:30 - 5:36	*"Assessing the ability of students to self-evaluate their level of comprehension in a 1st year chemical engineering course"* **Andrew Sowinski**
TS6-C Lightning talks: "Educational Philosophy / Peer Collaboration", venue CHBE 102	
4:30 - 4:36	*"Training Teaching Assistants to be Coaches: A Sustainable Approach"* **Alexandros Dimopoulos, Eric Wilson, Kush Bubbar and Peter Wild**
4:42 - 4:48	*"On Becoming Educator-Changemakers"* **Kai Zhuang and Franz Newland**
4:54 - 5:00	*"Methods of Applying Machine Learning to Student Feedback Through Clustering and Sentiment Analysis"* **Eric Andersson and Christopher Dryden**

5:15 - 5:21	*"Using a common course syllabus as part of the quality control loop and accreditation data collection process"* **Marcus Ivey, Yasser Mohamed, Petr Musilek, Don Raboud, Arvind Rajendran and Jason Carey**
5:27 - 5:33	*"How to Make Peer Feedback in Teams Useful: An Empirical Study"* **Thomas O'Neill and Nicoleta Maynard**
5:39 - 5:45	*"Engineering Teaching and Learning Fellows as a Catalyst of Change Management in Engineering Education"* **Deena Salem and Brian Frank**
TS6-D Panel presentations: "K-12 Outreach", venue CHBE 103	
4:30 - 4:36	*"Improving Motor Skills of Students with Disabilities via Engineering Education"* **Sarah Morgan**
4:39 - 4:45	*"Examining the use of a Personalized Learning Management System (PLMS) to Increase Student Engagement in High School Physics"* **Meera Singh, Qiao Sun and Cassy Weber**
4:48 - 4:54	*"Knowledge Mobilization Intermediaries in STEM: The roles and functions of K-12 STEM Outreach Organizations at Canadian Universities"* **Scott Compeau**

6:30 – 9:00 Conference Banquet (Robert H. Lee Alumni Centre)

Wednesday, June 6, 2018

All technical sessions, workshops, and meetings will be held in the Chemical and Biological Engineering Building, CHBE (2360 East Mall V6T 1Z3)

Lunch will be served in the Fred Kaiser Building, KAIS (2332 Main Mall V6T 1Z4)

7:30 – 8:15 SIG meetings (details provided by SIG chairs)

Wednesday morning workshops:

8:15 – 9:45 LSC 1	**Engineer of 2050 workshop**
8:15 – 9:45 CHBE 202	**IET5** **Assess Like and Expert**

9:45 – 10:00 Coffee break

10:00 – 11:30 Technical Session TS-7

TS7-A Podium presentations: "Teaching Innovations", venue CHBE 101	
10:00 - 10:12	*"More time for hands-on learning: Flipping the Engineering classroom in a polytechnic"* **Stephanie Koska and Louise Condra**
10:18 - 10:30	*"Improving Classroom Engagement to Maximize Learning in an Interdisciplinary Dual Faculty Capstone Experience at the University of Manitoba"* **William Degagne and Paul Labossiere**
10:36 - 10:48	*"Student Video-Usage in Introductory Engineering Courses"* **Negar M. Harandi, Farshid Agharebparast, Luis Linares, Samuel Dodson, Ido Roll, Matthew Fong, Dongwook Yoon and Sidney Fels**
10:54 - 11:06	*"A Case-Control Study of Student Performance in a Blended Learning Environment"* **David Taylor**
11:12 – 11:24	*"Collaborative Knowledge Building using Microsoft SharePoint"* **Ralph Buchal and Emmanuel Songsore**
TS7-B Lightning talks: "STEAM: collaboration & creative approaches", venue CHBE 103	
10:00 - 10:06	*"Humanitarian Engineering: A New Interdisciplinary Course on the Application of Engineering Skills to Local and Global Humanitarian Challenges"* ***Andrew Sheroubi and Gabriel Potvin***

10:12 - 10:18	*"Approaching Sustainable Energy Transitions Through Bringing Disciplines Together: an examination of Carleton University's graduate cross disciplinary course in sustainable energy"* ***Heather Hayne and Nathalin Moy***
10:45 - 10:51	*"Use of a roleplaying exercise to illustrate design stakeholder roles in a first-year design course"* ***Juan Abelló, Alys Avalos-Rivera, Saloome Motavas, Vladan Prodanovic and Sandra Zappa-Hollman***
10:57 - 11:03	*"Leveraging Escape Room Popularity to Provide First-Year Students with an Introduction to Engineering Information"* ***Michelle Spence and Benjamin Walsh***
TS7-C Podium presentations: "Project-based Learning", venue CHBE 202	
10:00 - 10:12	*"Flipping the Script on Project Management Practices in Education: Outcomes of Applying Agile Development Methodologies in a Classroom Setting"* **Saif Abid, Maxim Antipin and Hamid Timorabadi**
10:18 - 10:30	*"Implementing project-based and experiential learning in the Aerospace Engineering program at Concordia University"* **Catharine Marsden, Andrea Cartile and Susan Liscouet-Hanke**
10:36 - 10:48	*"Implementation of the Second-year course in an Engineering Professional Spine"* **Umar Iqbal, Deena Salem, Brian Frank and David Strong**
10:54 - 11:06	*"Defining the Appropriate Course Project for Fostering the Expected Cognitive Competencies: EBD Approach to an Engineering Design Course"* **Amirali Ommi and Yong Zeng**
TS7-D Panel presentations: "Pedagogy II", venue CHBE 102	
10:00 - 10:06	*"Building a culture that values learning outcomes as an integral part of effective program development - one faculty's example"* **Ellen Watson, Marcus Ivey, Yasser Mohamed, Petr Musilek, Raboud Don, Arvind Rajendran and Jason Carey**
10:09 - 10:15	*"Supporting a Community of Practice with a Collaborative Platform of Active Learning Strategies"* **Sophie Morin and Patrice Farand**
10:18 - 10:24	*"A Systematic Review of Canadian Engineering Education Research 2004-2017"* **Bob Brennan, Ron Hugo, Kim Johnston, Nancy Nelson, Robyn Paul and Monique Sullivan**

10:27 - 10:33	*"Teaching From 1 to 9: A Progressive Teaching and Learning Experience"* **Mohamed Ismail**
10:36 – 10:42	*"When Does Leadership Become Engineering Leadership"* **Paul Winkelman**

11:30 – 12:30 CEEA-ACEG AGM (LSC1)

12:30 - 1:00 Box Lunch (CHBE Atrium)

Wednesday afternoon workshops:

1:00 – 2:30 CHBE 202	**IET6** **IET Closing**
1:00 – 2:30 CHBE 103	**Engineers Canada workshop**
1:00 – 2:30 CHBE 102	**Students' "UNCONFERENCE" (students only)**

1:00 - 2:30 UBC Campus Tours (sign-up sheets available at the registration desk/live app)

2:30 – 3:30 Le "bon voyage et à la prochaine" ice-cream social