

## DESCRIPTIONS

### Concurrent Sessions A - 11:15am Wednesday, May 15

#### British Columbia Institute of Technology

### Construction Industry Upskilling for Net-Zero Carbon

The BCIT Zero Energy/Emissions Buildings Learning Centre (ZEBC) is designed to ensure construction companies and their employees are fully prepared to adapt to local zero-emission bylaws and building codes. BCIT focuses on key competencies for an upskilled workforce, offering courses and micro-credentials that include applied and hands-on learning. Sessions are conducted live and online or in-person in labs equipped with learning props to demonstrate net-zero building principles. Attend this session for insights into upskilling for a net-zero workforce.

Presenter: **Mary McWilliam**, Project Leader, ZEBC

#### Humber

### International Development: The Humber Journey

As a leader in polytechnic education, Humber has been at the forefront of international development initiatives for the past 20 years. Leveraging itself as a centre of knowledge and technical expertise as well as international partnerships, Humber has made impactful and sustainable changes through equitable partnerships that focus on two-way knowledge sharing between the Global North and South. In this session, Humber will share its experiences from project work, past and present. Current projects include a TVET reform project in Bhutan and the STEM Education for Empowerment Program (STEEP) - a four-year project focused on providing girls and young women in Kenya and Ethiopia with access to STEM education.

Presenters: **Andrew Ness**, Dean, International  
**Clarisse Esteban**, International Development Lead

#### Utah Tech University

### Workforce Development Initiatives in Health Sciences

Utah Tech University (UT) is a key academic centre for healthcare education in the region. With a polytechnic mission emphasizing applied learning and career readiness, the institution prepares graduates to address immediate regional healthcare needs. Focused on sustainable health science career pathways, UT aims to seamlessly connect primary education through undergraduate and post-baccalaureate programs, showcasing a commitment to meeting the rising demand for a skilled health sciences workforce. In this session, UT will share how it has created health career pathways where students in Utah can pursue a health occupation degree or certificate that seamlessly transitions them into high-demand careers.

Presenters: **Dr. Eliezer Bermúdez**, Dean, College of Health Sciences  
**Dr. Judy Scott**, Chair, Department of Nursing  
**Dave Reiff**, Regional Pathways Coordinator



#### Algonquin

### Algonquin Centre for Construction Excellence Tour

Take a tour of the Algonquin Centre for Construction Excellence (ACCE)! Opened in September 2011, the LEED® Platinum centre brings the next generation of carpenters, plumbers, civil engineering technologists, interior designers and many other trades and professions under a single, green roof in this one-of-a-kind living laboratory. ACCE is a hub for some of the best construction, architecture and engineering instructors and labs in Ontario.

**Prior sign-up is required due to group size limits.**

Guide: **Shaun Barr**, Academic Chair, Construction Trades and Building Systems

Networking Lunch & Panel - 12:15pm Wednesday, May 15

## Are We Ready? Addressing Canada's Housing Supply, Talent Shortage and Climate Resilience Challenges

Canada's housing sector is facing the competing challenges of insufficient supply, a shortage of skilled workers and the need to build to increasingly stringent environmental standards. In this session, Algonquin College brings together industry, policy and talent development experts to discuss the nature and urgency of Canada's housing shortage. The panel will explore innovative short- and long-term solutions to Canada's housing crisis, reflecting on the role of polytechnics in equipping the next-generation workforce with the "green skills" critical to supporting a thriving green economy and addressing today's housing needs.



**Claude Brulé**  
President and CEO,  
Algonquin College  
**Moderator**



**Peter Fragiskatos**  
Parliamentary Secretary to the  
Minister of Housing, Infrastructure and  
Communities & Member of Parliament  
for London North Centre  
**Panelist**



**Chris Hahn**  
Dean, Algonquin Centre for  
Construction Excellence  
and the Perth Campus  
**Panelist**



**Kevin Lee**  
CEO, Canadian Home  
Builders' Association  
**Panelist**



## Concurrent Sessions B - 1:30pm Wednesday, May 15

### Conestoga

#### Embedding Sustainability in Research and Academic Programming

The Principles for Responsible Management Education (PRME) is a United Nations-supported initiative that aims to raise the profile of sustainability in business and management education. This session will share how PRME has been implemented at Conestoga College's School of Business and has inspired institutional transformation. We will provide examples of how we have utilized PRME to integrate sustainability into our curriculum, informing further programming. The session will also highlight how Conestoga is driving innovation through applied research projects with a sustainability focus through examples, including the integration of sustainability practices in organizational operations impacting the community.

**Presenters:** **Nicole Detlor**, Director, Food Research and Innovation Lab  
**Anna Hohenadel**, Accreditation Consultant, School of Business

### Northern Alberta Institute of Technology

#### NAIT Industry Solutions: Supporting Indigenous Communities and their Sustainability Efforts

Métis communities and First Nations across Alberta and northeast BC are working in partnership with NAIT to address land and freshwater environmental challenges due to climate change and industrial disturbance. This session details how these community-driven engagements marry western science expertise from NAIT's applied research team with a community's traditional ways of knowing to work on community identified challenges. Together, the team develops lab and field-based training that enable Indigenous communities to propose and act upon applied research questions important to them and their members, with impacts that are immediate and shared across the community.

**Presenter:** **Olle Lagerquist**, Associate Vice President Industry Solutions

### Purdue University – Polytechnic Institute

#### The Purdue Polytechnic Advanced Manufacturing Ecosystem

The Polytechnic Institute at Purdue University has evolved over six decades. Originally born from campus engineering programs in the 1960s, the polytechnic institute is home to six departments and schools focused on the application of methods and tools to solve industrial and societal challenges. Specifically, the School of Engineering Technology (SOET) is devoted to engineering practice in several areas, one of which is manufacturing. This presentation will elaborate on the manufacturing ecosystem being built within the SOET, including the general structure of manufacturing curricula and facilities, industry engagement via the institution's land-grant mission and the unique research underway.

**Presenters:** **Ragu Athinarayanan**, Professor, School of Engineering Technology  
**Ken Burbank**, Head and Professor, School of Engineering Technology  
**Nathan Hartman**, Professor, School of Engineering Technology

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## Concurrent Sessions C - 2:45pm Wednesday, May 15

### Fanshawe

#### Guardians of the Digital Realm: Exploring the Symbiosis of Cybersecurity and Artificial Intelligence

In an era dominated by digital advancements, opportunities and threats, “Guardians of the Digital Realm” delves into the intricate relationship between cybersecurity and AI. This session will reveal the symbiotic relationship where the partnership between AI and CYB emerge as formidable tools to fortify our digital defenses. From scenario planning and simulations to predictive threat analysis and autonomous responses, the synergy between cybersecurity and AI is reshaping the landscape of digital protection. Discover the dynamic strategies and innovations forging a resilient alliance in the relentless battle to safeguard the integrity of our interconnected world.

Presenter: **Dr. Dev Sainani**, Associate Dean, School of Information Technology

### Saskatchewan Polytechnic

#### Saskatchewan Polytechnic’s IENnovative Approach: Transition to Registered Nursing in Canada

In this presentation, Saskatchewan Polytechnic will share how it is responding to nursing shortages by condensing a registered nurse bridging program from nine months to 14 weeks, facilitating the transition of registered nurses from the Philippines into Saskatchewan’s healthcare system. The nature of this initiative’s intersectoral and multisectoral collaboration has drawn the attention of other provinces. To date, 121 Filipino nurses have arrived in Saskatchewan and 21 are already working. Within the foreseeable future, this program is expected to attract another 850 Filipino nurses transitioning to careers in Saskatchewan.

Presenters: **Christa MacLean**, Dean, School of Nursing and School of Health Sciences  
**Monica Gretchen**, Academic Chair, School of Nursing  
**Shelley Lofstrom**, Executive Director, Workforce Planning and Recruitment, Saskatchewan Health Authority  
**Anna Ditablan**, Director, International Engagement and Program Development, Saskatchewan Ministry of Health

### University of Wisconsin-Stout

#### Academic Innovations to Amplify Workforce Partnerships

This presentation will highlight two first-of-their-kind initiatives created in response to workforce needs. The first is a B.S. Automation Leadership program to prepare graduates for leadership in Industry 4.0 and digital automation. The program provides multiple on-ramps for degree completion and embeds completion of the Smart Automation Certification Alliance (SACA) industry credential. The second initiative is Wisconsin’s first apprenticeship designed in a partnership between a four-year university and the Wisconsin Department of Workforce Development to help businesses address the shortage of skilled workers by strengthening the knowledge and skills of internal training personnel.

Presenters: **Dr. Kelly Droege**, Assistant Professor and Program Director, M.S. Training and Talent Development  
**Dr. Xuedong (David) Ding**, Associate Dean and Director, School of Engineering

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## Concurrent Sessions D - 4:15pm Wednesday, May 15

### Red River College Polytechnic

## Empowering SMEs: How RRC Polytech is Supporting Industry in Digital Adoption and Energy Transition

In this session, RRC Polytech will highlight two intersecting institutional initiatives. The first is the newly established Price Institute of Advanced Manufacturing and Mechatronics which will add post-graduate programs in advanced manufacturing and mechatronics, reskill/upskill up to 1,000 workers per year and put Manitoba on the map for manufacturing research and partnerships. The second is the recently launched NSERC-funded Digital Technology Transformation initiative which supports Manitoba's advanced manufacturing and heavy vehicle sectors in achieving net-zero goals. In an era of unprecedented digital transformation and energy transition urgency, these initiatives highlight the important role polytechnics play in technology adoption and workforce innovation.

Presenters: **Derek Kochenash**, Dean, School of Skilled Trades and Technologies  
**Jolen Galaugher**, Director, Research Partnerships and Innovation

### George Brown

## Addressing Student Housing in Trying Times

Canada is seized with the topic of housing, students are increasingly seeking support to find places to stay and governments are demanding that colleges respond despite financial stresses. How can the sector find solutions to this puzzle? Join George Brown for a discussion about the future of student housing. This session will open with a presentation about George Brown's internal Housing Task Force then explore a range of topics to uncover sector success stories, unpack existing challenges and brainstorm future solutions. This session is for anyone who wants to advance student housing needs and goals.

Presenters: **Michelle McCollum**, Vice President, Facilities and Sustainability  
**Laura Jamer**, Director, Government Relations

### Technological University Dublin & Darmstadt University of Applied Sciences

## EUt+ Initiative: The Ultimate Exercise in Scaling

The EUt+ initiative aims to enhance co-operation between nine European institutions to a point where the institutions can deliver joint programs and provide student and staff mobility along with research opportunities. This presentation will provide context to the EUt+ project and focus on the relationship between two of those partners - Darmstadt and TUDublin. We will include examples of cooperation as well as insights into areas under development, including joint programs and a new pedagogical approach: circular pedagogy.

Presenter: **Annabelle Bijelić**, Head of International Office, Darmstadt University of Applied Sciences

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## Concurrent Sessions E - 9:30am Thursday, May 16

### Seneca Polytechnic

#### How Seneca Polytechnic is Cultivating Innovation in Micro Farming

Micro farming encompasses small-scale outdoor and indoor farming initiatives that support local food systems. The Seneca Centre for Innovation in Micro Farming (SCIM) brings together specialized equipment and cross-disciplinary expertise in engineering, life sciences, digital technology, social sciences and business to promote technical and social advancements in food and agriculture. This session will discuss initiatives underway at SCIM, including the provision of hands-on urban farming opportunities across Seneca, applied research opportunities in advanced farming technologies, community-based farming and circular agriculture, and the award-winning Toronto Urban Farmer Training program, which fosters the creation of micro farming enterprises.

Presenters: **Dr. West Suhanic**, Principal Investigator, Urban Agriculture Enterprise Support Program  
**Cyrille Reyes**, Research Assistant, Urban Agriculture Enterprise Support Program  
**Dr. Andrew Paton**, Research Manager, Seneca Applied Research

### Southern Alberta Institute of Technology

#### SAIT Students Ready for the Challenge: World-Class Applied Student Learning Experiences

In this session, we will reflect on SAIT's student journey through an avatar student social media post. Sharing multiple dimensions of student experiences, the tools and strategies SAIT has used to remain dynamic and adaptable will be woven throughout using a storytelling process. SAIT's Capability Framework, which is embedded across the institution, will be shared, illustrating how this pragmatic solution supports student and employee success and enables quick responses to industry's rapidly changing needs. SAIT is ... ready for the challenge!

Presenters: **Jamie McInnis**, Director, Applied Research and Innovation Services  
**Lee-Ann Bainbridge**, Associate Registrar  
**Michelle Fernandes**, Director, Planning Design and Projects  
**Sonja Chamberlin**, Dean, School of Health and Public Safety  
**Dr. Reva Bond**, Dean, School of Construction

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## Concurrent Sessions F - 10:45am Thursday, May 16

### Kwantlen Polytechnic University

#### Learning Grounded in Design for Extremes: ALTA - A Portable Hyperbaric Chamber for use in High Altitude

For those who experience the effects of High-Altitude Illness, the use of a hyperbaric chamber increases the partial pressure of oxygen and minimizes the likelihood of death. ALTA, protective equipment for an extreme environment, arose from an industry-modeled student project to design an effective, lightweight, portable hyperbaric chamber for recreational mountaineers. Over an eight-week period, a team of product design students undertook extensive research, interviewed experts and ideated to develop a working concept prototype. This presentation will share how the framework for this award-winning project incorporates risk and expertise into design education to respond to different environmental contexts and climate change.

Presenters: **Andhra Goundrey**, Dean, Wilson School of Design  
**Sue Fairburn**, Faculty, Product Design, Technical Apparel  
**Amit Shukla**, Associate Vice President, Research and Innovation

### Sheridan

#### Leveraging AI for Improved Elder Care: Innovative Digital Companions for a Changing Demographic

As Canada's elderly population steadily rises, addressing the associated healthcare challenges becomes increasingly crucial. This presentation showcases a collaborative research project between two of Sheridan's Research Centres and Reimagine AI, exploring the development of interactive digital characters powered by AI for the support and care of older adults. By leveraging mobile technology and user-friendly interfaces, we aim to make AI companions readily accessible and usable for staff and care partners in the community and within formal care settings, enhancing quality of life for older users.

Presenters: **Stephan Kozak**, Primary Investigator, CG Animation VFX Lead  
**Lia Tsotsos**, Director, Centre for Elder Research

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