

Tuesday, August 20

Session Time	Session Title	Presentation Type	Presentation Title	Presenters/Authors
7:30-8:00			Registration for workshop registrants and brief announcements from the conference chair	Brandon Searle
8:00-12:30		Workshop-#1	Integration of Business Intelligence and Modular Construction for Affordable Homes in Canada with the Oxford Institute for Sustainable Development	Oxford Institute for Sustainable Development
		Workshop-#2	CSA standards and guidelines for modular construction with CSA Group	CSA Group
12:30-17:00		Workshop-#3	Design for Manufacture and Assembly (DfMA) with SEMA Software	SEMA Software
	Technical Tour	Technical tour of the new Engineering Commons, a brand new addition to Head Hall	UNB Capital Planning and Operations (CP&O)	
17:00-18:30	BREAK			
18:30-23:30	Welcome Reception			

Wednesday, August 21

Session Time	Session Title	Presentation Type	Presentation Title	Presenters/Authors	
7:00-8:00	Registration and breakfast				
8:00-8:15	Welcome & Opening Remarks			Brandon Searle Zhen Lei Dr. Paul Mazerolle	
8:15-9:15	Plenary Session 1	Keynote Presentation	Keynote Presentation from Helena Lidelow, CTO of Volumetric Building companies	Helena Lidelow	
9:15-9:30	Coffee Break				
9:30-10:30	Stream 1 : Offsite Methods and Processes, focusing on innovative offsite manufacturing techniques, including prefabrication, panelized construction, modular construction, and industrialized construction, with the potential to revolutionize the industry.	Academic Paper	Barriers to Offsite Construction Adoption In Jordan: An Exploratory Factor Analysis	Hasan Badran, Mohammed Arif, Mahmood Alam, Mohammed Alaqad and Rubina Islam	
		Academic Paper	Application of Off-site Principles for Small-scale Gold Mining Optimization in the Built Environment	Deinsam Ogan, Tochukwu Moses and Komali Yenneti.	
		Academic Paper	Structural performance of light-weight precast concrete wall panels	Nathan McNeill and Alan Lloyd.	
	Stream 2: Advanced Technologies in Construction, focusing on innovative applications of emerging technologies such as IoT, AI, 3D printing, robotics, reality capture, and AR/VR, showcasing their potential to transform the construction domain.	Academic Paper	An Energy-Efficient Variable Frequency Suction System for Floor-Filing Robots Using a Fuzzy Logic Controller	Jinhua Chen, Siwei Chang, Zemin Lyu, Tong Hu and Wanyou Yang.	
		Academic Paper	Development of an Intuitive Mixed Reality Human Robot Interaction Interface for Construction Applications	Damith Tennakoon, Mojgan Jadidi and Seyedreza RazaviAlavi.	
		Academic Paper	Robotic cell design and simulation system for cross-laminated timber panel post-construction operations	Jessica Janeth Cisneros González, Afia Rasool, Ying Hei Chui and Rafiq Ahmad.	
	Stream 3: People and Management in Construction, focusing on human factors, collaboration, communication, education, training, leadership, procurement, performance modeling, innovation benchmarking, EDI, sustainability, and regulatory frameworks	Academic Paper	The Role of Human Dimension to Safe Working Condition in the Construction Industry	Ayodele Alejo, Clinton Aigbavboa, Douglas Aghimien	
		Academic Paper	Offsite Manufacturing for Housing in Emerging Economies: An Evaluation of Current Implementation Levels	Nenpin Dimka, Louis Gyoh, Emmanuel Daniel and Job Momoh	
		Academic Paper	A Framework to Evaluate Regional Construction Hubs Establishment	Sahar Soltani, Duncan Maxwell and Lisa Giusti Gestri.	
			Case studies	Northumbria University, Newcastle Bird Construction Arctic Modular Homes Inc. (20 mins each)	
	10:30-11:00	Coffee Break			
	11:00-12:00	Stream 1 : Offsite Methods and Processes	Academic Paper	Smart Technologies for Modular Construction: A Review of Current Applications	Sibgat Mehedi, Jin Ouk Choi and Amrit Shahi.
Academic Paper			Double-Sided STS-CLT Connection for A Modularized Building System	Linchao Shen, Meng Gong, Alan Lloyd and Mohammad Mohammad.	
Stream 2: Advanced Technologies in Construction		Academic Paper	Analyzing Deformations in As-Found Buildings for Accommodation in Panelized Retrofit	Kristine Prochnau, Simone Fatlica, Stephen Fai, Michael Jemtrud and Jessica Mendoza	
		Academic Paper	GIS Based Solutions for Management of Public Building and Infrastructure Assets: A Review of State of the Art and Emerging Technologies	Pavel Popov, M. Hamed Mozaffari, Seyedreza RazaviAlavi and Farzad Jalaei	
Stream 3: People and Management in Construction		Academic Paper	Technology Application in Enhancing Safe Working Condition in the Construction Industry	Ayodele Alejo, Clinton Aigbavboa, Douglas Aghimien	
		Academic Paper	Developing the "Industrial Commons" for Off-Site Construction	Gaurav Rampal	
		Case studies	BECC Modular (1 hour)		
12:00-12:30	Lunch				

12:30-14:00	Plenary Session 2	Panel Discussion	The Role of Government in Accelerating Off-site Construction - an International Perspective	Moderated by Dr. Jeff Rankin with presentations from Sabrina Fiorellino, CEO of Fero International Stephen Wightman, Director - UK MMC at AtkinsRealis Scott Fischer, CEO of OffsiteNZ Amrit Shahi, Jin Ouk Choi, Sibgat Mehedii
	Stream 1 : Offsite Methods and Processes	Academic Paper	Quantifying "Softer" Benefits from Modularization in Capital Projects: Literature Review	
		Academic Paper	Analysis and Mitigation Strategies of Installation Delays in Precast Concrete Columns: A Case Study in a Korean Logistics Facility	Eunbeen Jeong, Junyoung Jang, Seulbi Lee and Tae Wan Kim.
	Stream 2: Advanced Technologies in Construction	Academic Paper	Enhancing Built Environment Management: A Vision-Based Approach Unified with Fiducial Markers and Omnidirectional Camera Pose Estimation	Gelare Taherian and Ehsan Rezazadeh Azar
Academic Paper		A Review of Scan-to-BIM Technologies in Assisting Project Coordination and Management	Hannah Coldwell, Xinzhi Qiu, Jeff Rankin, Meng Gong and Zhen Lei.	
14:00-15:00	Stream 3: People and Management in Construction	Academic Paper	Awareness of Health and Safety Practices Among Construction Workers: A Case Study of Undo State, Nigeria	Oluwaseun Olu-Martins, Cliton Ohis Aigbavboa and Opeoluwa Akinradewo.
		Academic Paper	Appraising Time Performance of Higher Education Institutions Building Projects to Achieving Sustainable Development Goal 4	Ayobami Idowu, Clinton Aigbavboa, Ebekeozien Andrew, Peter Adekunle and Fortune Aigbe.
STUDENT POSTER COMPETITION				
1. Yakine Zerrad - Innovative Construction in Canada's Extreme Environments: Integration 3D Printing and Mass Timber through Computational Design and Digital Fabrication 2. Christtestimony Oluwafemi Jesumoroti - Maintenance Management 3. Derrick Mirindi - BIM-Driven Offsite Construction: Pathways to Efficiency and Sustainability 4. Saeid Metvaei - BIM-Driven Robotic Manufacturing for Off-site Construction Practices 5. Hannah Coldwell - The Impact of Using Building Information Modeling (BIM) and Digital Technologies for Project Delay Management 6. Ayodele Oluwote Alejo - A safe working condition model for the Nigerian construction industry. 7. Deinsam D. Ogan - APPLICATION OF OFF-SITE PRINCIPLES FOR SMALL-SCALE GOLD MINING OPTIMIZATION IN THE BUILT ENVIRONMENT 8. Jessica Janeth Cisneros Gonzalez - ROBOTIC CELL DESIGN AND SIMULATION SYSTEM FOR CROSS-LAMINATED TIMBER PANEL POST-CONSTRUCTION OPERATIONS 9. Stephen Elms - Immersive Training Solutions: The Potential Role of XR for Safety and Skill Development in Offsite Construction 10. Eunbeen Jeong - Precast Concrete Components Installation time 11. Muhammad Zubair - DeepFakes 12. Eberhiri Benjamin Olomu - Performance Measurement of Modular Construction (PMMC): Application of Balanced Scorecard (BSC)				
15:00-15:30	Coffee Break			
15:00-16:30	Stream 1 : Offsite Methods and Processes	Academic Paper	Integrated Framework and Impact Assessment of Design for Manufacture And Assembly (DFMA) in Modular Home Manufacturing Facilities: A Case Study	Nicole Odo, Sadaf Montazeri, Zhen Lei, Katherine Dewinter and Amir H. Shokouhy.
		Academic Paper	Economic Factors influencing the adoption of Modularity Methodology in the Built Environment	Peter Adekunle, Clinton Aigbavboa, Osamudiamen Otasowie and Ayobami Idowu.
15:30-16:30	Stream 2: Advanced Technologies in Construction	Academic Paper	Review of Natural Language Processing NLP and Generative AI Applications in the Era of Construction 4.0	M. Hamed Mozaffari, Pavel Popov, Seyedreza Razavialavi and Farzad Jalaei.
		Academic Paper	Enhancing Efficiency in Light-Gauge Steel (LGS) Prefabrication: A Strategic Workflow Optimization	Sadaf Montazeri, Nicole Odo and Zhen Lei.
15:30-17:00	Case studies	Akhurst Machinery PACE Building Technologies Inc WZMH Architects / Sparkbird (min 30 mins)		
17:00-18:00	BREAK			
18:00-18:30	Awards Banquet Reception			
18:30-23:30	Awards Banquet			

Thursday, August 22				
Session Time	Session Title	Presentation Type	Presentation Title	Presenters/Authors
7:00-7:30	Registration for 1 Day Pass			
8:00-8:30	Opening Remarks			
8:30-10:00	Plenary Session 3	Panel Discussion	New and Emerging Technologies in Off-site Construction	Mohammed Arif, Mohamad Kassem, Mohamed Al-Husseini
		Academic Paper	Structural Performance Assessment of PACE Modular Precast Slab Structure Systems	Trevor Hrynkyk, Mi Zhou, Garry Rutledge, Dejan Dikic
10:00-11:00	Stream 1 : Offsite Methods and Processes	Academic Paper	Self aligning structural connection for precast concrete walls	Kate Cunningham, Alan Lloyd, Samira Rizaee
		Academic Paper	Integrating Design and Fabrication for Sustainable Housing: Insights from the Kopps Prototype	Saeid Metvaei, Kamyab Aghajamali, Songyue Wang, Zhen Lei and Qian Chen
	Stream 2: Advanced Technologies in Construction	Academic Paper	BIM-Driven Offsite Construction: Pathways to Efficiency and Sustainability	Derrick Mirindi and Frederic Mirindi

	Case studies	Meta Bytes North America Inc. OCRC xL Architects (20 mins each)	
11:00-11:30	Coffee Break		
11:30-12:30	Stream 1 : Offsite Methods and Processes	Academic Paper	A Comparative Analysis of Design for Manufacturing and Assembly (DFMA) Implementation Challenges in On-site construction (OnSC) and Off-site Construction (OSC) Sadaf Montazeri, Sara Rankohi, Ivanka Iordanova and Amirhossein Mehdipoor.
		Academic Paper	Benefits of Integrating Advanced Composite Materials into Modular Construction for enhanced Structural Performance Peter Adekunle, Clinton Aigbavboa, Osamudiamen Otasowie, Opeoluwa Akinradewo and Nwabisa Pheza.
11:30-13:00	Stream 2: Advanced Technologies in Construction	Academic Paper	Integration of Artificial Intelligence and Smart Technologies in Offsite Construction: A Comprehensive Review Derrick Mirindi, Tonya Sanders Thach and Oluwakemi Oshineye.
		Academic Paper	Explainable artificial intelligence in generative design for modular construction Sanaz Zarghami, Hanieh Kouchaki, Longzhi Yang and Pablo Martinez
13:00-13:00	Case studies	Modular Energy Solution (Living Labs at Canadore College) Housing at High Speed/The Modular Solution 720 Modular Modular Energy Solution (Modular and Solar Energy Solutions) (20 mins each)	
13:00-14:00	Plenary Session 4	Panel Discussion	KN4 and Lunch Gursans, Mojgan, Qian
14:30-16:30	<p style="text-align: center;">McKenna Institute</p> <p style="text-align: center;">Introduction: McKenna Institute and RIDS AI (10 minutes)</p> <p style="text-align: center;">Presentations:</p> <ul style="list-style-type: none"> - Demystifying AI or Industrial AI Use (20 minutes). - AI in construction (20 minutes). <p style="text-align: center;">Panel Discussion: A panel discussion and audience Q&A (30-45 minutes)</p>		<p style="text-align: center;">Moderator- Aaloak Jaswal</p> <p style="text-align: center;">Deval Pandya from Vector Institute</p> <p style="text-align: center;">Mark Cichy from HOK</p>
16:30-17:00	Closing Notes- Brandon		