Conference Day 3	/	Tuesday, August 27, 2024	/	icccbe 24 Montreal
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ROOM	E2021	E2022	E2023	E2024	E2025
	E-1 : Advancing Construction Planning & Scheduling	L-5 : Big Data, data mining, machine learning and artificial intelligence	B-5 : Building Information Modelling	T-1 : Technologies and smart data management	S-1 : Digital Twins
9:50	3 - Automated inspection in mechanical and electrical construction leveraging OpenVSLAM and instance segmentation Wei Wei, Yujie Lu, Lijian Zhong, Yufan Chen, Ruihan Bai, Yijun Lin		95 - Heritage Building Air Diffusion Performance Index: HVAC Diffuser Layout Evaluation for Heritage Building Preservation Jiaying ZHANG, Helen H.L. Kwok, Jack Cheng	136 - Integrating Privacy-Preserving Occuponcy Estimation Using Thermal Camera with a Digital Twin Platform Benjamin Rafatian, Pezhman Sharafdin, Ali Motamedi	40 - Digital Twins, architectures, and elements in civil engineering – A multivocal literature review Kay Smarshy, Muhammad Ahmad, Patricia Peralta, Thamer Al-Zuriqat, Heba Al-Nasser, Kosmas Dragos , Carlos Chillón Geck
10:10	50 - Semi-automated Digital Planning Assistant for Frame Bridges Amelie Becker, Jakob Grave, Niels Bartels , Steffen Marx	123 - Automated Hierarchical Object Clustering for Multi-Image Documentation: A Comprehensive Image Analysis Pipeline Michael Disser, Maximilian Gehring, Uwe Rüppel	109 - Semantic Web for BIM-Based Automated Project Management and Control: A Review Asha Palihakkara, Carlos Osorio-Sandoval, Walid Tizani	238 - Exploring Critical Success Factors for Cloud Data Management in the South African Construction Industry Wanda Mpingana, Opeoluwa Akinradewo, Clinton Aigbavboa	11 - A System-of-Systems Approach for Deploying Containerized Construction S- Digital Twins using Linked Data Philipp Hagedorn, Ekaterina Petrova, Markus König
	97 - What Quantitative Indicators do Construction Companies Use to Manage ESG?: A Case Study in South Korea Moobin Kim , Youngcheol Kang, Wonkyoung Seo	143 - Evaluating the capabilities of machine learning surrogate modeling to support high-resolution building perform simulation Elin Markarian, Seif Qibbawi, Shivram Krishnan, Anagha Divakaran, Albert Thomas, Elie Azar	120 - Enhancing Information Extraction from Building Standards Using Kasmos-2: A Multimodal Approach Sven Zentgraf, Markus König	146 - Automated Registration of Ground 3D Point Cloud Data for Individual Buildings Huaiyuan Weng, Chul Min Yeum , Derek Robinson, Bruce MacVicar	42 - Correcting Rood Image Annotations Percy Lam, Weiwei Chen, Lavindra De Silva, Ioannis Brilakis
10:50	100 - An Automated Vision-based Construction Efficiency Evaluation System with Recognizing Worker's Activities and Counting Effective Working Hours Chao Mao, Chaojun Zhang, Yunlong Liao, Jiayi Zhou, Huan Liu	148 - Federated Learning in Infrastructure Predictive Models: A Case Study of Utah's Culverts Pouria Mohammadi, Abbas Rashidi, Sadegh Asgari	282 - Using Change Orders to Measure the Impact of Building Information Modeling: A Case Study Constantine Katsanis, Conrad Boton, Gabriel Lefebvre, Carlos Bedoya	162 - Automated Stakeout Survey Solution for Earthwork Construction Projects Ming Lu, Sida Wang	165 - A blockchain-enabled Urban Digital Twin: Decentralized Asset Management using City Information Modeling Oluwatoyin Lawal, Nawari Nawari, Adel Alsaffar
	E2 : Advancing Construction Planning & Scheduling	L-6 : Big Data, data mining, machine learning and artificial intelligence	B-6 : Building Information Modelling		
11:30	161 - Analyzing the Effect of Wind on Construction Schedules Samaneh Gholitabar	182 - Artificial Intelligent Design Sys. for Shear Wall Structures with Large Language Model Controlling Generation and Optimization Sixhong Qin, Hong Guan, Wenjie Liao, Yi Gu, Zhe Zheng, Hongjing Xue, Xinzheng Lu	153 - S- Digital Twins for Smart Decision Making in Facilities and Asset Management (FAM) Chady Elias, Isabelle Southern, Raja Issa		
11:50	176 - The Mechanism of Construction Workers' Intentional Unsafe Behavior: In Perspective of Theory of Planned Behavior Jeonghyeun Chae, Youngcheol Kang	189 - Dimensionality Reduction in Structural Reliability Analysis I -Tung Yang , Jonathan Aloysius	235 - Integrating S- Digital Twins and Web3 on the Carbon Offsetting Industry for Transparency: A New Framework Approach Ricardo Gallopp, Raja Issa		
12:10	215 - An Advanced Work Packaging Inspired Ontology for Industrial Construction Projects Mohamed ElMenshawy, Liingzi Wu, Ulrich Hermann (Rick), Travis Zubick, Simaan AbouRizk	192 - Building the Blueprint for Al-powered Compliance Checking: Analyzing ChatGPT-4 & Gemini by Question Category in Engineering Regulations Entesar Al Nama, Maqsood Mahmud	207 - HBIM For Historic Concrete Buildings: Benefits of Documentation and Analysis for Historic Preservation Anne Marie Sowder, Raja Issa		
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14:30	239 - Planning the evolution of the sectors of a construction project over time with the Dynamic Location Breakdown Structure Stephane Morin-Pépin, Adel Francis	223 - Efficient and Rapid Optimal Chiller Loading Using a Simplified Two-Stage AlgorithmMohamed Kandil, Gary Chang, Jenn McArthur	212 - A case-study investigating the integration of ISO 19650 and OpenBIM principles Adam Yousfi, Cloé Arnould, Nathalia De Paula, Brenda Da Silva Laurindo, Megan Doume Ekale, Ivanka lordanova, Ali Motamedi, Erik Poirier French Presentation	127 - A BIM-Based Assessment Method for Reusing Components from Existing Precast Concrete Buildings Husam Al-Jawhar, Georgia Thermou, Carlos Osorio-Sandoval, Serik Tokbolat - Presenter: Utami Retno	
	245 - The Effects of Incorporating Artificial Intelligence (AI) into Lean Construction Thalya Nunes, Silvio Melhado	243 - Data Mining and Feature Selection in Large Hospital Central Heating Plant Marjan FatehiJananloo , Jenn McArthur, Helen Stopps	252 - Re-modeling built asset information to improve and optimize asset management. Amine Souilah, Erik Poirier French Presentation	116-Integrating inspection data from non-destructive tests on in- service infrastructure into OpenBIM data models Mahsa Mirboland, Paul-Christian Schuler , Christian Koch, Mathias Artus	
	251 - Untangling the Complexities of the Uptake of Smart Construction Sites in South Africa Matthew Ikuabe, Clinton Aigbavboa, Ntebo Ngcobo, Lerato Aghimien	Model	200 - Comparative Analysis of two BIM Model Transfer Processes in Cave Automatic Virtual Environments. Ilyass latissami, Conrad Boton .	144 - Using Linked Data Containers for structural inspection data: A sustainable data integration for bridge inspection tests Paul-Christian Schuler, Mahsa Mirboland, Christian Koch, Chris Voigt	
		L-8 : Big Data, data mining, machine learning and artificial intelligence	B-8 : Building Information Modelling	F-1 : Visualization	P-1 : Estimation and risk assessment
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16:10		257 - Near Real-Time Steel Rust Recognition Using Transformer-Based Convolutional Neural Networks Shahinuzaman Shahinuzzaman, Po-Han Chen, Luh-Maan Chang	213 - Literature review on semantic enrichment of BIM models to consider occupational health and sofety requirements Feriel Moalla , m Feno, Tommy Messaoudi, Adriana Savescu, Gilles Halin	217 - Guidelines for Designing a Facility Management Digital Twin Dashboard Andrea Mata Celis, Karim El Mokhtari, Jenn McArthur	184 - Automatic Construction Safety Report using Visual Question Answering and Segmentation Models Dai Quoc Tran, Vuntae Jeon, Seongwoo Son, Almo Kulinan, Changjun Lee, Seunghee Park
16:30		260 - Modelling silicon-based materials with machine learning potential Claudiane Ouellet-Plamondon, Karim Zongo, Laurent Béland French Presentation	234 - BIM-based Life Cycle Assessment for Integrated Energy and Seismic Retrofit of Existing Buildings Yuwadee Kulthanaphanich, Szu-Yun Lin	171 - A survey of Visualization techniques for Digital Twins Mahsa Paziraei, Ali Motamedi	219-Investigating causes of cost overruns and delays in South African mega projects . Lindelani Matshidze.