



10:30 – 11:30

Auditorium/Multipurpose Hall

Autodesk Industry Presentation

10:30–11:15	#	Az Jasat, Donna Laquidara-Carr	When Does Industrialized Construction Become Business as Usual? Introduction to the new global study: <i>Rise of Industrialized Construction</i>
11:15 - 11:30	#	Transitioning Break	Autodesk Design & Make Lab

13:30 – 15:00

Multipurpose Room A

Chair: Feral Foscett

IConIC Technology - Session T1: Robotics and Human–Robot Interaction (Part I)

13:30–13:45	42	Amirpooya Shirazi, Idris Jeelani, Masoud Gheisari, Aladdin Alwisy	A Systematic Review of Pilot Studies in Human–Robot Interaction for Construction: Safety Implications Across Human, Robot, Interaction, and Environmental Dimensions
13:45–14:00	3	Feral Foscett, Aladdin Alwisy	Beyond the Lab: Foundations for Integrated University-Industry Connections in Translational Robotics for Industrialized Construction
14:00–14:15	62	Md Mehrab Hossain, Aladdin Alwisy	From Attributes to Multifunctionality: A Task-Oriented Approach for Humanoid Selection in Construction
14:15–14:30	83	Thanakon Uthai, Hengxu You, Jing Du	A Multi-Modal VR Teleoperation Framework for Demonstration Collection in Soft Object Manipulation Tasks
14:30–14:45	77	Seun Adeniran, Yanyu Wang	A Comparative Evaluation of Single-Image-to-3D Reconstruction Models for Building Scenes
14:45–15:00	46	Emmanuel Adeleke, Uddin Mohammad Moin, Bajracharya Biju R, Wang Fenfen, David Iyiola	Digital Twin Driven Space Retrofitting Tool for Thermal Optimization Using KPIs

Multipurpose Room B

Chair: Karla Saldana Ochoa

IConIC Management - Session M1: Education, Workforce Development, and AI Literacy

13:30–13:45	25	Ebenezer Olukanni, Abiola Akanmu, Houtan Jebelli	Hybrid Augmentation and Multi-Layer Validation of Human-Robot Collaboration Competencies for Industrialized Construction
13:45–14:00	26	Ebenezer Olukanni, Abiola Akanmu, Houtan Jebelli	A Natural Language–Driven Framework for Developing Human-Robot Collaboration Training Modules for Industrialized Construction
14:00–14:15	33	Karla Saldana Ochoa et al.	The Building as Laboratory for Industrialized Construction
14:15–14:30	69	Ruoxin Xiong, Jiahui Wang	Developing Open Educational Resources for AI Literacy in Construction Education: Curriculum Design and Implementation
14:30–14:45	81	Di Liu, Hongtao Dang	Development and Evaluation of a Dual-Course Interactive Multi-Agent Learning Assistant for Construction Management Education
14:45–15:00	82	Hongtao Dang, Di Liu, Xiao Liang	A Review of Agentic AI in Construction Education

15:15 – 16:45

Multipurpose Room A

Chair: Raja Issa

IConIC Technology - Session T2: Digital Twins, AI, and Building Informatics

15:15–15:30	16	Niloofer Heidarikohol, Mohammad Hadi Foroozandeh Dehkordi, Chao Wang	VR Pre-Training for Excavator Simulators: Improving Usability and User Experience through Interaction-Focused Training
15:30–15:45	32	Matilda Mensah, Chimay J. Anumba, Patricia Kio	A Novel AI-Driven Workflow for Optimizing Early-Stage Building Design and Construction Methods
15:45–16:00	67	James Toyin, Anoop Sattineni	Why Augmented Reality Wearables Fail to Scale in Construction: A Socio-Technical and Ergonomic Analysis
16:00–16:15	9	Melika Ketabforoush, Hisham Said	Multi-System Generative Design Synthesis of Dwellings using BIM-Based Graph Rewriting
16:15–16:30	11	Deepak Balakrishnan, Ravi Srinivasan, Chinemelu Anumba, Raja Issa, Karla Saldana Ochoa, Idalis Villanueva	A Robust, Generic Bi-Directional Connector to Integrate NVIDIA™ Omniverse and EnergyPlus™ for Near Real-Time Building Energy Simulation and Visualization
16:30–16:45	17	Mohammad Hadi Foroozandeh Dehkordi, Niloofer Heidarikohol, Chao Wang	A Human Digital Twin Framework for Simulator-Based Training of Construction Equipment Operators

Multipurpose Room B

Chair: Ravi Srinivasan

IconIC Management - Session M2: Affordable, Resilient, and Adaptable Industrialized Construction

15:15–15:30	39	Vitalis Eseonu, Mojtaba Mahmoodian, Ana Evangelista	Integrating Concepts of Advanced Work Packaging and Workforce Planning in Optimizing Industrial Construction Productivity: A Quantitative Study of Alberta Oilsand Projects
15:30–15:45	10	Beta Paramita, Ravi Srinivasan	Scaling RAFLESIA® Through Industrialized Construction and Regulatory Integration in Indonesia
15:45–16:00	35	Iwany Martinez Norales, Patricia Kio	Iconic Riverwalk: Applying the PERVAL Scale to Framework Development for Active Public Spaces
16:00–16:15	65	Rowena Shivam, Ravi Srinivasan	Rethinking Data Centre Delivery in the UK: A Systems Approach to Planning, Infrastructure and Construction Constraints
16:15–16:30	78	Dao T. Nguyen, Anh D. Chau	AI Policy Research and Industrialized Construction: A Systematic Mapping Review of Sectoral Gaps and Governance Priorities
16:30–16:45	80	Nyla Mansha, Omobolanle Ogunseiju, Ebenezer Fanijo, Manideep Tummalapudi	Delivering High-Performing Sustainable Buildings: Key Strategies from Industry Practitioners

Wednesday, August 5, 2026

10:30 – 12:30

Multipurpose Room A

Chair: Chao Xie

IconIC Technology - Session T3: Robotics, Automation, and Human–Robot Collaboration

10:30–10:45	8	Ifran Mohamed, Hisham Said	Topologically Interlocking Pavement Construction using Robotic Installation and Digital Fabrication
10:45–11:00	19	Chao Xie, Aladdin Alwisy, Bryan Franz, Raja Issa	Quantitative Analysis of the Role of Robotics in Promoting Industrialized Construction for Resilient Post-Disaster Recovery: Exploratory Research
11:00–11:15	20	Congjun Jin, Raja Issa	CNN-LSTM-Driven Method for Recognizing Multimodalities of Human Intent in Human-Robot Collaboration
11:15–11:30	34	Julie Waldrop et al.	Temporary by Design: Nature-Based Resilience Through Digital Fabrication
11:30–11:45	36	Abiola Adegoke, Abiola Akanmu, Yewande Abraham	Neurosymbolic Design Framework for Reasoning-Centric Human–Robot Collaboration in Industrialized Construction
11:45–12:00	37	Abiola Adegoke, Abiola Akanmu, Yewande Abraham	Cyber-Physical Construction Intelligence: A Neurosymbolic Framework for Semantic Human–Robot Collaboration
12:00–12:15	84	Fang Xu, Jing Du	A Multi Agent Workflow Framework for Industrialized Construction Decision Support: A Case Study on RFI Coordination
12:15–12:30	87	Chao Xie, Aladdin Alwisy, Feral Foscett	Digital Twin-Enabled Adaptive Control for Perception-Driven Robotic Assembly in Industrialized Construction

Multipurpose Room B

Chair: Ricardo Gallopp Ramírez

IconIC Operations - Session O1: Operations and Manufacturing Systems

10:30–10:45	18	Muhammad Amir Hamza Khan, Robert Leicht, John Messner	A Case Study of Industrialized Construction: Using Modular Bathroom Pods with Short Interval Production Scheduling (SIPS)
10:45–11:00	24	Henrique Barreto, Aladdin Alwisy, Raja Issa	Enhancing Disruption Prioritization in Industrialized Construction Supply Chains Using Ripple Effect Theory
11:00–11:15	21	Ricardo Gallopp Ramírez, Aladdin Alwisy, Raja Issa	Production Context Resolution Framework for Production Events in Industrialized Construction Cyber-Physical Production Systems
11:15–11:30	41	Edmund Amoyaw-Brown, Chimay Anumba, Patricia Kio, Ravi Srinivasan	Configure-to-Order HVAC Strategies for Energy-Efficient Modular K-12 Schools
11:30–11:45	44	Diekolola Abiola-Ogedengbe et al.	Perception of Construction Professionals on the Role of TQM in Enhancing Project Quality in the Digital Economy
11:45–12:00	45	Diekolola Abiola-Ogedengbe et al.	Investigating the Factors Affecting Total Quality Management Implementation in Construction Project Delivery in the Digital Era
12:00–12:15	55	David Lodinger, Juan Flores, Jennifer Burtner	Data-Driven Lean Facility Optimization for Industrialized Construction Manufacturing
12:15–12:30	64	Lan Lou, Xiao Li	Knowledge Graphs for Production Planning, Scheduling, and Control in Manufacturing: A Review

13:30 – 15:00

Multipurpose Room A

Day 3

Chair: Md Mehrab Hossain

IconIC Technology - Session T4: Data Analytics, Vision Models, and Digital Intelligence

13:30–13:45	48	Yanming Zhou, Jingyi Lai, Jiansong Zhang	Heuristic-Based Clearance-Aware Path Planning for Automated ADA Accessibility Verification
13:45–14:00	22	Dongdong Wang, Deepak Balakrishnan, Ravi Srinivasan, Shenhao Wang	Built Environment Reasoning from Remote Sensing Imagery Using Large Vision–Language Models
14:00–14:15	31	William Correa, Ahmed Bouferguene, Mohamed Al-Hussein	A Graph Network-Based Framework for Structural Resilience Analysis in Off-site Construction Production Systems
14:15–14:30	53	Obiora Odugu, Mohammad Hadi Foroozandeh, Asif Chowdhury, Muhammad Tahir Khan, Chao Wang	ConstructionQA: Evaluating Multimodal Large Language Models on Industrial Construction Drawing Set
14:30–14:45	71	Mamunul Karim, Estiak Ahmed, Afia Anzum	A Comprehensive Review and Paradigm Framework on Human–AI Collaboration in Construction Management
14:45–15:00	76	Saeed Talamkhani, Kaijian Liu	Structured Pruning–Based Efficiency Optimization of Deep Vision Models for Automated Infrastructure Inspection

 Multipurpose Room B

Chair: Idris Jeelani

IconIC Operations - Session O2: Safety and Risk Management

13:30–13:45	58	Jianhuan Zeng, Xiao Li, Yuheng Cao	A Multi-modal Smart Safety Helmet For Mental Fatigue Monitoring
13:45–14:00	63	Md. Tushar Ali, Mohammad Khalid	Multi-Dimensional Estimation of Heat Stress in Construction Integrating Metabolic Load, Anthropometry and Vertical Gradients
14:00–14:15	66	Soroush Piri, Kamalesh Panthi	Understanding Causal Factors of Construction Accidents through an AI-driven Framework
14:15–14:30	72	Sajib Sarkar	Advancing Construction Safety Through Near-Miss Reporting: A Systematic Comparison of Traditional and Technology-Driven Frameworks
14:30–14:45	70	Nyla Mansha et al.	Identifying Core Knowledge Domains for Sustainable Construction Education: Industry Perspectives
14:45–15:00	74	Mary Ifeoma Nwanua and Denise Rutledge Simmons	When Drones Enter the Worksite: Exploring Construction Professionals' Attitude Towards Shared Workspaces with Drones

**15-minute presentation slots (12 min presentation + 3 min Q&A).