



#AIAEC2025 aiaec.net

Artificial Intelligence in Architecture, Engineering and Construction

AI in AEC

March 19–20, 2025

HELSINKI, FINLAND & VIRTUAL

Tuesday, March 18

Get together and Exhibition

19:00

21:00

Wednesday, March 19

Conference day 1

9:00

16:45

Dinner

19:00

22:00

Thursday, March 20

Conference day 2

8:45

15:50

PARTNERS

A-INSINÖÖRIT

FAIR

KIRAHub

SWECO

SUPPORTED BY

ATL
ASSOCIATION
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Wednesday, March 19		SIRKUS	SILTASAARI
08:30 Coffee and Exhibition		9:00	Pre-recorded Keynote 1 available in the app Generative AI on AEC industry Prof. Giuseppe Carlo Marano Chair of structural design, Politecnico de Torino, Italy
09:00 Opening session Chair Vesa Järvinen, AINS Group / A-Insinöörit, Finland 09:00 Opening of the AI in AEC 2025 Conference Vesa Järvinen, AINS Group / A-Insinöörit, Finland	 Tuomas Syrjänen		 Prof. Giuseppe Carlo Marano
09:20 Keynote 2 Challenging the conventions of the construction industry with data & AI Tuomas Syrjänen, Co-Founder, Chair of the Board, AI Renewal, Futurice, Finland 09:50 Partner presentations			
10:00 Coffee and Exhibition		10:30	
10:30 Session 1 - AI Landscapes Chair Sergej von Bagh, BST-Arkkit ehdit, Finland 10:30 Opening of the session 10:35 Building AI-Ready Foundations: The Role of Regulation in AEC Jaakko Rastas and Vesa Putkonen, Ministry of the Environment, Finland 10:55 Generative AI in Architecture, Engineering, and Construction: Emerging Business Models and Strategic Adaptation Ivana Kildsgaard, Tengbomgruppen, Petra Svensson Gleisner, IHOP Stockholm and Fredrik Nystedt, AFRY, Sweden 11:15 AI startup business opportunities in AEC Risto Rudanko, Aalto University, Finland	10:50 Session 2 - Smart Buildings and Cities Chair Davor Stjelja, Granlund, Finland 10:50 Opening of the session 10:55 Leveraging LLMs as AI Experts to Evaluate the Integration of Smart Buildings into Smart Cities Mustafa Shahrabani, Kaunas University of Technology, Lithuania 11:15 AI-Driven Predictive Analytics for Optimizing MEP Systems in Smart Buildings Enrique Galicia, AvantLeap, United States 11:35 An evolutionary algorithm-based model predictive control for combined electrical and thermal energy systems Rubén Mulero, TECNALIA, Basque Research and Technology Alliance (BRTA), Spain		
11:55 Lunch and Exhibition			11:55 Lunch and Exhibition
12:55 Session 3 - AI Implementation Chair Simon Oster, Arcadis, Netherlands 12:55 Opening of the session 13:00 Maximizing Efficiency in AEC through AI-Driven 3D model Data Generation and Standardization Dr. Simon Oster, Arcadis, Netherlands 13:20 Uncertainty Quantification: how AI can help us deal with uncertainty and help solve grand challenges that face the industry and the planet Ramaseshan Kannan, Arup, United Kingdom 13:40 Balancing Ease and Precision: From fast prototyping to actual implementation Matias Hirvikoski, AINS Group / A-Insinöörit, Finland 14:00 Advancing Infrastructure Design: AI-Powered Automation and Insights Dirk Münzner, BuP. Boll Beraten und Planen Ingenieurgesellschaft, Germany 14:20 Lets acknowledge that there is no single source of truth - and deal with it Dr. Mads Rasmussen, QAECY AG, Denmark and Christian Frausing, QAECY AG, Switzerland	12:55	12:55 Session 4 - Automated Model Processing Chair Heikki Arvio, Ramboll, Finland 12:55 Opening of the session 13:00 Leveraging Large Language Models for Automated BIM Generation: An NLP-Driven Approach John Masataka Xianfeng Jiang, Columbia University / Kengo Kuma and Associates, United States 13:20 Making AI accessible to architects Erling Storm Haaversen and Espen Færavaag da Silva, Hille Melbye Architects, Norway 13:40 Rapid sketching: Practical Applications with AI for Architecture Harri Ahokas, ONE Architects , Finland 14:00 Real-time 3D asset generation in the built environment: research and use case Asier Urueña, TECNALIA, Basque Research and Technology Alliance (BRTA), Spain 14:20 From old blueprints to 3D city model Dr. Gosia Wrzesinska and Dr. Jan-Mark Wams, Coders Co., Netherlands	
14:40 Coffee and Exhibition			
15:10 Keynote session Chair Miro Ristimäki, Skanska, Finland 15:10 Opening of the session 15:15 Keynote 3 Data-driven business modeling in the construction industry Prof. Dr. Antti Ainamo, Associate Professor of Interaction Design, Computer Science, University of Tartu - Academic visitor, Civil Engineering, Aalto University, Finland 15:45 C-suite Panel Discussion The AI adaption in the AEC industry Moderators Annina Peisa, RIL / Ramboll and Miro Ristimäki, Skanska, Finland Panelists Sarah Calder, AI Capability manager, Skanska, United Kingdom Salla Eckhardt, CEO, SARA, Finland Kari Kauniskangas, President and CEO, AINS Group / A-Insinöörit, Finland Tuomas Syrjänen, Co-Founder, Chair of the Board, AI Renewal, Futurice, Finland 16:45 End of the conference day		15:10  Prof. Dr. Antti Ainamo	14:40 Coffee and Exhibition  Sarah Calder  Salla Eckhardt  Kari Kauniskangas  Tuomas Syrjänen
19:00 Dinner at restaurant Meripaviljonki		19:00	

Thursday, March 20		SIRKUS	SILTASAARI
08:15 Coffee and Exhibition		8:45	 Prof. Dr. Eleni Chatzi
08:45	Session 5 - Cyber-Physical Systems		
Chair	Ramaseshan Kannan, Arup, United Kingdom		
08:45	Opening of the session		
08:50	Keynote 4	9:15	09:15 Session 6 - Manufacturing
	Re-engineering Infrastructures as Cyber Physical Systems Prof. Dr. Eleni Chatzi Chair of Structural Mechanics & Monitoring, ETH Zürich President, European Academy of Wind Energy		
09:20	Transforming Structural Health Monitoring with AI-Driven Digital Twins: The WeStatIX SHM Platform Nils Weissenbach , CAEmate Srl, Italy		
09:40	Intelligent Predictive Maintenance for Smart Buildings Using Digital Twin and Transfer Learning Laleh Davatgar Badie , Islamic Azad University Science and Research Branch, Iran		
10:00 Coffee and Exhibition		10:30	10:20 Coffee and Exhibition
10:30	Session 7 - Sustainable Development		
Chair	Simon Oster, Arcadis, Netherlands		
10:30	Opening of the session		
10:35	Leveraging Data and AI to Reduce Greenhouse Gas Emissions in the Construction Industry Olli Kilpeläinen , Betolar, Finland	10:50	10:50 Session 8 - Construction
10:55	Patent's evaluation with data analysis and AI - Case Climate Change Mitigation in Architecture, Engineering and Construction Rauli Koskinen and Väinö Toots , Xamk, Finland		
11:15	Gladis - Universal AI-powered search engine for EPD Alexandre Duverger , Daikon, France		
11:35	Designing Sustainable Building Assemblies with Knowledge Graph Workflows Dr. Allin Groom* , Arthur Harsuvanakit** and Brian Lee** , Autodesk, *United Kingdom, **United States		
11:55 Lunch and Exhibition		12:55	11:55 Lunch and Exhibition
12:55	Session 9 - AI Agents and Workflows		
Chair	Joonas Helminen, Sweco, Finland		
12:55	Opening of the session		
13:00	Generational Intelligence - The rise of Agentic AI in AEC Senthil Kumar , Slate Technologies, United States	15:10	12:55 Session 10 - Automatization and Optimization
13:20	Enhancing compliance in AEC with agentic AI systems Aleksei Kondratenko and Guido Maccioci , AECFoundry, Italy		
13:40	AI agent powered LCA / Cost optimization assesment Tero Järvinen and Kerkko Niemi , Granlund, Finland		
14:00	Leveraging AI to future proof Engineering Project Planning and Control Philippe Lafferre , Kannan Balaram and Nampuraja Enose , AFRY, Finland		
14:20 Coffee and Exhibition		15:10	14:40 Coffee and Exhibition
15:10	Closing session		
Chair	Vesa Järvinen, AINS Group / A-Insinöörit, Finland		
15:10	Keynote 5		
	3 Pillars of AI Implementation Stjepan Mikulić Founder and CEO, AI in AEC		 Stjepan Mikulić
15:40	Closing Words Vesa Järvinen , AINS Group / A-Insinöörit, Finland		
15:50	End of AI in AEC 2025		