



ALMA MATER STUDIORUM  
UNIVERSITÀ DI BOLOGNA | DIPARTIMENTO  
DI ARCHITETTURA



Con il patrocinio di:



Ordine degli Architetti di Ravenna: evento accreditato per riconoscimento CFP.  
Ordine Ingegneri: per il riconoscimento dei CFP per Ingegneri è necessario iscriversi sul portale [www.isiformazione.it](http://www.isiformazione.it) e ricercare l'evento per la propria categoria Saranno riconosciuti 3 CFP per la partecipazione all'intera durata dell'evento formativo.

## NEW FRONTIERS OF CONSTRUCTION MANAGEMENT

*workshop 1<sup>a</sup> session – 7<sup>th</sup> November 2024*

9.30-13.00 *workshop 1<sup>a</sup> session*

**9.30-10.00** **Keynote: Challenges of using BIM and digital technologies for construction management**  
Kalle Kähkönen

**10.00-11.10** *Artificial Intelligence & Digitalization of building processes*

**Optimizing Urban Energy Efficiency through a Machine Learning-Driven Framework: A Case Study in Reykjavik**

Andrea Giuseppe di Stefano

**An information ontology for construction projects quantification**

Davide Simeone

**Leveraging Blockchain and Smart Contracts for a New Frontier in Asset Management**

**Virtual reality applied to road construction sites: Designing and testing a virtual learning environment**

Valentina Villa

**The Digital Construction Site: Applications And Case Studies Of Virtual And Augmented Reality**

Valentina Dell'Infante

**A Digital Approach for Effective Asset Management of Tunnel Infrastructure**

Valentina Villa

**Leveraging AI for construction project performance predictions**

Fulvio Re Cecconi

**Virtual reality applied to road construction sites: Designing and testing a virtual learning environment**

Davide Prati

*Artificial Intelligence & Digitalization of building processes: workshop discussion and public debate*

**11.10-11.30** coffee break / short break

**11.30-12.50** *Building Information Modelling & Built Heritage*

**Historic BIM and Artificial Intelligence: perspectives on a frontier rooted in the legacy of the past**

Simone Garagnani

**IFC as a Bridging Element in BIM/GIS Integration for Sustainable Management of Disused Railway**

**Civil Engineering Assets**

Manuel Garramone

**SQL relational database usage for integration between BIM models and Quantity take-off platforms**

Beatrice Maria Toldo

**BIM based seismic vulnerability and energy efficiency assessment**

Giorgia Marcellino

**Integrating HBIM and Information Ontologies for enhanced management of layered archaeological sites**

Cassia De Lian, Cui

**Innovative BIM-Based Strategies for the Recovery and Management of Existing Buildings: A Case Study**

Stefano Cascone

**Building information modeling and virtual reality**

Annalisa Villa

**Enhancing BIM with Bayes Point Machine from Early Design Phases for HVAC Maintenance-oriented Design**

Edoardo De Santis

**12.50-13.00** *Building Information Modelling & Built Heritage: workshop discussion and public debate*



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## NEW FRONTIERS OF CONSTRUCTION MANAGEMENT

*workshop II<sup>a</sup> session – 7<sup>th</sup> November 2024*

14.00-18.00 *workshop II<sup>a</sup> session*

14.00-14.30 **Keynote:**

**Limits and potentialities of digitalization in the construction sector**

Angelo Ciribini

14.30-15.10 *Project Management & Lean Construction*

**Standardized Cost Data – Based Enhanced Construction Project Management**

Jacopo Cassandro

**IfcOWL-based web-app for user-friendly process scheduling**

Davide Avogaro

**Common Data Environment (CDE) in the Public Sector: State of the Art of Leading Products in the Italian Market and Comparison with Regulatory Demands**

Silvia Mastrolemba Ventura

**Resource-based Takt Time Evaluation of Construction operations: case study**

Gianna Mastroberardino

*Project Management & Lean Construction: workshop discussion and public debate*

15.15-16.05 *Construction Site Design and Off-site Construction*

**Features of product configurator for industrialised house building**

Laura Kauppinen

**Towards the digitization of safety documents on construction sites: analysis of a case study in Italy**

Giulia De Cet

**Off-site Industrialized Systems for Building Renovation: Implementing Plug and Play Facades in the Construction Process**

Grazia Marrone

**Strategies for off-site construction in developing a climate neutral city**

Guido Callegari

**Off-site Technologies for the Building Envelope: Mapping Practices and Innovations of Cold-Formed Steel-Based Systems**

Grazia Marrone

*Construction Site Design and Off-site Construction: workshop discussion and public debate*

16.05-16.30 coffee break / short break

16.30-17.30 *Environment, Quality and Safety.*

**Analysis of near miss accident in a construction company**

Giulia De Cet

**Knowledge graph-based Digital Twins for automatic Bayesian Networks generation**

Arsenii Kirillov

**Redefining Asset Management practices to support the digital transition of large universities**

Daniele Accardo

*Environment, Quality and Safety: workshop discussion and public debate*

17.30-18.00 **Final Keynote:**

**BIM-enabled learning**

Emlyn Witt



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## NEW FRONTIERS OF CONSTRUCTION MANAGEMENT *workshop III<sup>^</sup> session – 8<sup>th</sup> November 2024*

9.30-13.10 *workshop III<sup>^</sup> session*

9.30-10.00 **Keynote: Life Cycle Assessment in the construction sector**

Marie-lise Pannier

10.00-11.00 *Circular Economy, Low carbon and nature friendly Building Site Design (I).*

**IMPACTS OF CIRCULAR ECONOMY IN THE CONSTRUCTION INDUSTRY: A REVIEW**

**ITER Project: Experimentation on ecological and recyclable raw earth plasters**

Giada Giuffrida

**LCA-based renovation strategies in the Preliminary Design Stage**

Marco Alvisè Bragadin

**A Novel Design Approach for enhancing Material Circularity in Urban Development**

Michele Versaci

**Wood Plastic Composite: recycle and reuse**

Sara Lanzoni

**Risks in Transitioning to a Circular Economy in the Construction Sector**

Emlyn Witt

*Circular Economy, Low carbon and nature friendly Building Site Design I: workshop discussion and public debate*

11.00-11.30 *coffee break*

11.30-12.40 *Circular Economy, Low carbon and nature friendly Building Site Design (II).*

**Economic development and energy transition**

Gianluca di Castri

**Toward carbon neutral architecture: the potential of timber building system for zero CO<sub>2</sub>e emissions**

Giacomo Di Ruocco

**The Essential Role of Social Value in Construction**

Paola Alice Rosa Cavallaro

**Post WWII high-rise buildings in Udine, between preservation and retrofitting.**

Lorenzo Modena

*Circular Economy, Low carbon and nature friendly Building Site Design II: workshop discussion and public debate*

**12.40-13.10 Keynote closure: Low carbon deep renovation construction projects**

Annarita Ferrante

13.10 **discussione e chiusura del workshop / public debate and workshop closure**