

Dipartimento ABC

Prof. Fulvio Re Cecconi - Dipartimento ABC – Organiser

Dates: an afternoon twice a week from 03/09/2024

Where: Politecnico di Milano

This is an in Hybrid event

Rooms: as in Ag enda

Campus: Milano P.zza Leonardo

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The ONLINE ENROLLMENT procedure available at the link

<https://www.polimi.it/en/corsi/master-universitari-e-corsi-post-laurea/translate-to-english-dettaglio-master/427>

must be completed NO LATER than the date indicated on the webpage for online registration.

The course will be held in ENGLISH LANGUAGE

Registration fee: no registration fee is asked. Online enrollment is mandatory

A certificate of attendance will be issued upon request.

Information

Secretariat: prof. Fulvio Re Cecconi

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web: [www.dabc.polimi.it](http://www.dabc.polimi.it)



**POLITECNICO**  
MILANO 1863

DIPARTIMENTO DI ARCHITETTURA,  
INGEGNERIA DELLE COSTRUZIONI  
E AMBIENTE COSTRUITO



**International Council**  
**for Research and Innovation**  
**in Building and Construction**

Continuing Education Event

# AI for Construction Project Management

## Who can participate?

The event is open to national and international research students and professional practitioners upon registration. Applications need to be submitted through the Politecnico di Milano website.

N.B: The organisers reserve the right not to hold the event if the minimum number of 10 people is not reached

## Topics

The hybrid summer school on "AI in Construction and Project Management" offers a blend of theoretical and practical learning, covering AI fundamentals, applications in construction, data management, design, and facility management of building projects. After introductory sessions on various project management domains, participants will engage in hands-on exercises in project planning, risk management, cost estimation, quality control, safety, team management, energy performance analysis, and sustainability. At the end of some sessions, special guests from leading enterprises in the industry will deliver a lecture followed by a Q&A by the participants, to make the potential applications and advantages of AI methods more tangible. The broad team of lecturers from different locations in the world will enable the participants to make a comparison on the maturity level of AI application in different countries.

## Agenda

The event will be held over six half days, from 4:00 to 8:00 PM (CET), according to the following schedule:

### 3rd September – Room Castigliano

AI for Intelligent Project Management. What are the main pillars of project management and how AI can contribute to the efficient and automated management of projects.

### 5th September – Room Castigliano

Data are the foundation of AI, this session will focus on how data can be collected, made reliable and analysed. An extensive hands-on session will enable participants to practice a data cleaning and analysis pipeline.

### 10th September – Room Beltrami

Knowledge Management and lessons learned transfer in construction projects. What AI tools can contribute to structured registry of lessons learned during the construction phase of the project, and how the qualitative and subjective knowledge can be quantified for further use by the machines.

### 12th September – Room Castigliano

AI-based Risk, Time, and Cost Management in construction projects. What are the main probabilistic and deterministic AI techniques that can be used to predict risks of various types, especially time and cost risks, to proactively manage the projects and secure their successful delivery.

### 17th September - Room Castigliano

AI-driven design management. In what scopes AI can contribute to managing the design phase of the projects, for a more optimized delivery during the construction phase.

### 19th September - Room TBD

AI-driven facility and operation management of projects. How AI and digital technologies can contribute to the optimized management of built projects by automating the inspection and maintenance procedures, energy efficiency analysis, and project valuation.

## Type of event

The event will be held in hybrid mode. PoliMI students can participate in person, international students can participate online. The official language of the event is English.

## Lecturers

Prof. **Chimay J. Anumba** - University of Florida

Prof. **Ana Filipa Ferreira da Silva Cigarro Matos** - Instituto Superior Técnico

Dr. **Ania Khodabakhshian** - Politecnico di Milano

Prof. **Masoud Jalayer** - Politecnico di Milano

Prof. **Andrea Giovanni Mainini** - Politecnico di Milano

Prof. **Fulvio Re Cecconi** - Politecnico di Milano