

AI Driven Digital Systems for Heritage Reuse

From 3D Capture to Interactive Generative Web Environments.

29 April 2026 / 2.30 – 4.00pm,
Aula 201 Lingotto

The lecture explores how contemporary digital technologies reshape the way we interpret, document, and communicate cultural heritage within adaptive reuse contexts. Moving beyond static representations, the talk introduces a workflow that integrates rapid 3D capture, spatial data processing, and AI-assisted development to create interactive web-based digital layers. Through tools such as Google AI Studio, photogrammetry pipelines, and real-time deployment infrastructures, heritage elements are transformed into dynamic, participatory environments. The lecture combines methodological insights with applied examples from ongoing research projects, highlighting how intelligent systems can support architectural interpretation, user engagement, and cultural storytelling. Special emphasis is placed on the role of generative AI as a co-creative mechanism in designing adaptive, context-aware digital experiences.

The conference will be held in English

Dr. Markos Konstadakis, PhD

Postdoctoral Researcher and Adjunct Lecturer at the University of the Aegean, specializing in human-computer interaction, digital cultural heritage, and AI-driven interactive systems. His research focuses on immersive technologies, digital twins, and adaptive user experience through generative AI. He has participated in over 15 national and European research projects and has authored more than 50 peer-reviewed publications, with an h-index of 20. His work bridges research and practice, developing interactive digital infrastructures for cultural heritage, education, and intelligent environments.

INFO / CONTACT:

referente.MAP@polito.it
emanuele.morezzi@polito.it



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