

WORKSHOPS: Shaping the Future: XR Technologies for Inclusive and Educational Cultural Heritage

Genova, ex Stazione Genova Prà - Via Prà 39

4-5 June 2025

June 4th, 2025

14.00 -14.15 Welcome – Brief introduction to the CTE Genova Project

Franca Giannini Katia Lupinetti (CNR-IMATI)

Silvia Campailla (Municipality of Genova)

14.15 - 15.00 Marco Sacco (CNR-STIIMA) XR an European Perspective on the Current State and the Future: which Enhancements for Cultural Heritage

15:00 - 16:10 From real to virtual – chair Selene Frascella (IIT) *This section explores the full pipeline that turns physical artefacts and sites into faithful digital replicas. Speakers will cover different reconstruction aspects, showing how to preserve authenticity while enabling new research opportunities.*

15:00-15:30 Holger Graf (FhG-IGD) AI empowered XR technologies for the digital conservation, restoration and communication of cultural artefacts

15:30-15:50 Ugo Erra (UNIBAS) High-Fidelity 3D Reconstruction and AI Interaction for Immersive Heritage Access

15:50-16.10 Michela Mortara (CNR-IMATI) Digitization and 3D Modelling of Culturally and Historically Significant Artefacts and Sites

16:10-16:30 Coffee break

16:30 –18:10 Interactive Virtual Cultural Heritage Experiences - chair Stella Sylaiou (International Hellenic University) *This session focuses on designing interactive applications through digitized heritage. Case studies will demonstrate multi-modal interaction, narrative design, and gamification strategies that deepen visitor engagement and foster co-creation.*

16:30-17:00 Sofia Pescarin (CNR-ISPC) Designing Hybrid Experiences for Cultural Heritage (Brancacci POV, Aldrovandi Digital Twin, Iseum XR): from co-design to prototyping and experiment planning

17:00 -17:30 Manuela Chessa (UNIGE) Perceiving and interacting in XR: enhanced grasping and tangible computational thinking

17:30-17:50 Chiara E. Catalano (CNR-IMATI) A serious game in augmented reality to explore historical sites

17:50 -18:10 Brigida Bonino (CNR-IMATI) Exploiting VR to improve accessibility and engagement in cultural heritage visits

June 5th, 2025

09:30 – 09:45 Welcome and introduction second day – Katia Lupinetti (CNR-IMATI)

09:45 – 10:45 Towards Accessible and Inclusive VR – Brigida Bonino (CNR-IMATI) *This section explores methods for ensuring that VR heritage applications are usable by people of all ages, abilities, and backgrounds.*

09:45-10:15 Maite Frutos-Pascual (Birmingham city University) Breaking Barriers: Accessibility and Inclusion in XR Experiences

10:15 -10:45 Stella Sylaiou (International Hellenic University) Designing Inclusive Virtual Heritage Experiences for Older Adults: Key Considerations for Engaging Digital Cultural Narratives

10:45-11:15 Lobna Hassan (LUT University) Inclusion across the educational pipeline in AI- and XR-based education

11:15-11:45 coffee break

11:45 – 13:15 AI and XR in education – chair Lobna Sameer Hassan (LUT University) *Discover how artificial intelligence enriches extended-reality experiences to create compelling, curriculum-aligned learning tools. Sessions will showcase intelligent tutoring, adaptive storytelling, and data-driven assessment that connect learners with cultural heritage in new ways.*

11:45-12:15 Joaquin Jorge (IST/U Lisboa) Learning Through Immersion: How XR, AI, and Gamification Shape the Future of Education

12:15-12:45 Maria Blanca Ibanez Espiga (Universidad Carlos III) Learning Beyond the Screen: What VR and AR Are Teaching Us in the Classroom

12:45-13:15 Francesco Ferrise (POLIMI) Virtual Reality and Artificial Intelligence for Training and Skill Transfer

13:15 – 14:15 Lunch

14:15 - 14.45 Diego Coglitore (APRE) - Upcoming calls in Horizon Europe

14:45 – 15:30 Presentations of CTE proofs of concepts - chair Franca Giannini (CNR-IMATI) *This section describes the main proof of concepts in the use of 3D digitalisation, AI and XR for museum asset management and protection, and immersive user augmented experiences.*

Selene Frascella, Arianna Traviglia, (Center for Cultural Heritage Technologies, IIT) Automated Digitization of Cultural Artifacts through Robotic Collaboration

Barbara Mazzarino e Matteo Santoro (Camelot) Video analytics platform safety on 5G infrastructure

Alessandra Azzola (ETT) User Augmented Experience in cultural heritage

15:30 – 16:15 Demos of CTE proofs of concepts

16:15 – 16:30 Closing