



7th International Conference on Innovation in
Art Research and Technology
Funchal, Madeira Island, Portugal

DIGITAL TECHNIQUES AND IN-SITU PHYSICAL & CHEMICAL ANALYSIS WORKSHOP

This one-day hands-on workshop introduces advanced digital documentation and portable analytical techniques applied to cultural heritage and conservation studies.

The workshop is primarily intended for university professors and heritage professionals, and is also open to conference participants interested in further developing their practical expertise in in situ analytical methodologies.

Participants will rotate through guided stations featuring imaging and analytical techniques (e.g. photogrammetry, hyperspectral imaging, infrared reflectography (IRR), multi-spectral imaging, portable EDXRF, and portable Raman spectroscopy). Each station combines a concise theoretical introduction with live demonstrations and supervised hands-on experience using professional-grade equipment.

Special emphasis is placed on non-invasive and non-destructive approaches, as well as on strategies for integrating these digital and analytical tools into teaching, research projects, and professional heritage practice.

This workshop offers a unique opportunity to engage directly with advanced instrumentation and real-world workflows, fostering interdisciplinary collaboration between science and heritage studies. Due to its practical format, the number of participants is limited.





WORKSHOP

PROGRAMME

PRELIMINARY

9:00am - 9:30 am

EVENT REGISTRATION

09:30am - 1:00pm

MORNING SESSION

INTRODUCTION TO HERITAGE SCIENCE AND DIGITAL TECHNIQUES AND IN-SITU PHYSICAL & CHEMICAL ANALYSIS

António Candeias

UÉvora | HERCULES Laboratory | IN2PAST

Scientific analysis of cultural heritage: past actions & future challenges

Peter Vandenabeele

Ghent University

Raman applications in Cultural Heritage research

Teresa Reis

UÉvora | HERCULES Laboratory | IN2PAST

Crossing historical and scientific facts in the interpretation of multi-layered repaints (Project Old Goa Revelations)

Fabio Sitzia

UÉvora | HERCULES Laboratory | IN2PAST

Traditional Photogrammetry and Beyond: New Frontiers in the Digitalization of Cultural Heritage

Filipa Abrantes | Rita Rodrigues | Elsa Murta

Regional Directorate of Culture - SRTAC | ARTIS | José Figueiredo Laboratory

Conservation, restoration, and art studies: interdisciplinary projects

10:50am - 11:20am

COFFEE BREAK



WORKSHOP

PROGRAMME

PRELIMINARY

02:00pm - 5:30pm

AFTERNOON SESSION

HANDS-ON DIGITAL TECHNIQUES AND IN-SITU PHYSICAL & CHEMICAL ANALYSIS

Fabio Sitzia

UÉvora | HERCULES Laboratory | IN2PAST
Photogrammetry and 3D digitalization

Teresa Reis & Sara Valadas

UÉvora | HERCULES Laboratory | IN2PAST
Infrared Reflectography / multi-spectral imaging

Riccardo Tagliapietra

RENISHAW: apply innovation
In-Situ Chemical molecular Analysis – portable Raman Spectroscopy

Eva Direito

OPUS INSTRUMENTS
Infrared reflectography - Opus system

ORGANIZATION



Secretaria Regional
de Turismo, Ambiente e Cultura
Direção Regional de Cultura



PARTNERS

