

Selection notice for the allocation of  
6+3 places/scholarships for participation in:

# 2<sup>nd</sup> INTERNATIONAL WORKSHOP ON DIGITAL 3D CULTURAL HERITAGE (2IW-D3DCH)

## Exploring 3D-Modelling in Education, Documentation and Dissemination

4-11 September 2024,  
Porto, Portugal

FAUP announces a competition aimed at students enrolled in FAUP courses in September of 2024 (MIARQ or PDA) for 6 places to participate in the International Workshop on Digital 3D Cultural Heritage, which will take place from September 4th to 11th, 2024 at the Faculdade de Arquitectura Universidade do Porto (FAUP).

There are 3 additional places for students from all FAUP courses in the academic year 2023/2024, including those no longer actively enrolled at FAUP in September 2024 (due to completing their course or ending their mobility).

The International Workshop is part of the Erasmus+ project "CoVHer: Computer-based Visualization of Architectural Cultural Heritage" coordinated by the University of Bologna (IT) partnered with the Hochschule Mainz – University of Applied Sciences (DE), Faculdade de Arquitectura Universidade do Porto (PT), Politechnika Warszawska (PL), Universitat Autònoma de Barcelona (ES), as well as La Tempesta: City, culture & technology (ES), Interessengemeinschaft für Semantische Datenverarbeitung E.V. (DE).

Application and registration are free, and no participation fees are required for the students attending the International Workshop.

## Purpose

To offer a group of meritorious students with a strong inclination towards 3D modelling, digital 3D reconstruction and visualization, and cultural subjects, in general, the opportunity to confront the topic in an international context. The Workshop will be organized by the Faculdade de Arquitectura Universidade do Porto, collaborating with colleagues and external experts in the field.

Participants in the intensive course will be able to engage with Cultural Heritage 3D reconstruction directly, following advanced strategies and successful case studies that will foster the standardization in documentation and publication and further application of the 3D data sets.

The highly international nature of the Workshop also guarantees extensive cultural exchange and broader perspectives, fostering international cooperation and mobility, which is in line with the educational objectives of the Erasmus+ program.

## International Workshop objectives

- To delve into hypothetical digital 3D reconstruction within the European context.
- To introduce new standard methods and approaches to Cultural Heritage reconstruction as explorative research and dissemination tools.
- Discuss ways of representing and documenting uncertainty, either in hand drawing or digital 3D reconstruction.
- To experiment through design workshops and exercises, providing a hands-on practical approach to the subject by further application of the digital 3d models (Augmented Reality/Virtual Reality and Rapid Prototyping/3D printing).
- To offer opportunities for international interaction with prominent figures in digital 3D Cultural Heritage.
- To provide opportunities for cultural and multidisciplinary exchange in an international environment.

## Contents

- Representation and visualization.
- Hypothetical architectural and archaeological reconstruction.
- Standardization and Good Practices for the Digital 3D Reconstruction.
- Documentation, publication, and dissemination of Digital 3D Cultural Heritage.

## Modes of carrying out activities

### Pre-workshop (presential + online)

A set of presential and remote meetings will take place in June to prepare the FAUP participation in the workshop.

A few remote meetings, planned in July, for all workshop participants, with instructions on:

- Representation methods (hand drawing and digital).
- Visualization of the 'uncertainty-value-system' (own concept) for documenting the hypothesis (design of an infographic).
- Web-based documentation and publication of the 3D model.
- Preparation of the models for the Augmented Reality.
- Preparation of the models for the Rapid Prototyping application.

Remote reading of preparatory material provided by the organizers:

- Papers on 'Scientific Reference Model', documentation, publication, and representation of the uncertainty, etc.
- Handbook on digital 3D reconstruction (in preparation by the CoVHer partners).

Preparation of a short presentation on the topic and methodology, and in previous experiences.

### Workshop (presential)

Porto, Portugal (04.09.2024-11.09.2024):

(4 and 11 are travel days)

- Theoretical lectures / presentations on "best practices"
- On-site investigations and discussions
- Practical classes / exploring 3D data exchange formats
- Discussion on Handbook (preliminary version).
- Correction of the data set in the online 3D Repository and online Documentation Platform.

- Preparation of 3D derivatives in multiple output formats (AR/VR and 3D printing)
- Excursion/sightseeing
- Social Events in Porto Metropolitan Area.

## Post-Workshop (online)

Upon returning home, workshop participants must complete the assigned work to prepare the “camera-ready” material for access and re-use, e.g., Creative Industries, education, etc.

Documentation of the work/experience in a Workshop Booklet (template will be delivered/designed during the Workshop in Porto).

A final online meeting to sum up and say farewell.

## Recipients of the Call

Regarding the candidates from FAUP:

Students with mastery of 3D modelling tools and parametric design (by attending UC or by experience) and who are enrolled in MIARQ-FAUP or PDA-FAUP courses in September 2024 (MIARQ and PDA Students enrolled in 2024/25 academic year, and dissertation students enrolled in 2023/24 academic year with a valid inscription until September 30th).

Students from all FAUP courses/CU in the academic year 2023/2024, including those who are no longer actively enrolled at FAUP in September 2024 (due to completing their course or ending their mobility).

## Selection Criteria

A committee composed of Dr<sup>a</sup> Clara Pimenta do Vale, Dr José Pedro Sousa and Dr. Pedro Varela, members of the research team, will carry out the selection of the candidates from FAUP. The committee will evaluate the following criteria for the preparation of the ranking.

### Admission requirements:

To be enrolled in MIARQ-FAUP or PDA-FAUP in September 2024 (MIARQ and PDA Students enrolled in 2024/25 academic year, and the dissertation students enrolled in 2023/24 academic year with a valid inscription until September 30th).

For the extra 3 places: to be enrolled in the academic year of 2023/2024 in any FAUP course, including continuous education.

Candidates must demonstrate a minimum B2 level of proficiency in the English language. Without an official document attesting to the candidate's language level, the candidate will sign an honour declaration of language proficiency, and the committee can conduct online interviews to assess the minimum level.

Candidates must express their interest in Cultural Heritage conservation, reconstruction, and visualization, and their desire to participate in the Workshop through a motivation letter (max. 300 words).

One representative visualization of a 3D model created by the candidate. 3D Model of Cultural Heritage buildings will be a preference factor (required resolution 1920×1080 pixels, 16:9 aspect ratio).

### Preferred requirements:

Involvement in the Erasmus+ project "CoVHer: Computer-based Visualization of Architectural Cultural Heritage".

A Very Good or Excellent grade in the curricular unities of Constructive Geometry (1 or 2).

A Very Good or Excellent grade in the curricular unity History of Portuguese Architecture.

Experience elaborating 3D models of Cultural Heritage Buildings (please give evidence with a small portfolio).

## Application

The application for registration, filled out in its entirety and signed, must be accompanied by:

- Identification document (Valid Citizen Card, Passport and Student Card/Number).
- PDA students: Certificate of graduation with the final grade. Miarq Students: PDF of student's personal page in Sigarra with grades and ECTS. Other Students: Certificate for those with a degree, attendance certificates and grades for the rest.
- Certificate of Language Requirements: Document proving a minimum B2 level of proficiency in the English language (or the candidate's honour declaration of the language proficiency).
- A motivation letter, containing a self-presentation and a description of the personal motivations (300 words).
- One representative visualization of a 3D model created in by the student (resolution 1920×1080 pixels, 16:9 aspect ratio).
- The preferred requirements, in a single Zip file (all that are applied and are not included in the Sigarra personal page)

All the listed documents, including the application for registration, must be submitted in the registration link available in Sigarra by May 27<sup>th</sup>, 2024, at 11:59 PM.

The application for participation, complete with all its attachments, must be submitted in a single submission. Candidates are reminded that the priority in applying does not constitute a score and does not influence the ranking process in any way. Incomplete applications or documentation that does not comply with the specifications in this call will not be considered. Hand-delivered applications will not be accepted.

An automatic confirmation of receipt of the application and attachments will be sent by jotform (please check spam). An email with additional instructions will be sent latter.

## Selection Mode

The selection mode will be as follows for all the students who meet the admission requirements:

$$FG = 0,4 \times M + 0,2 \times E + 0,2 L + 0,2 P$$

Where:

- FG – Final grade
- M - Average academic record as it appears on the Sigarra, average bachelor's/master's degree as it appears on the certificate. For the students of other FAUP Courses, the average grades of the given certificates will be made.
- E – The number of ECTS concluded is divided by 15. For PDA Students, 300 ECTS will be given for prior graduation, regardless of whether it is at master's or bachelor's level.
- L – Assessment of the Motivation Letter and the representative visualization on a scale of 1-20.
- P – Assessment of the preferred requirements on a scale of 1-20.

## Winner of this call

The top 6 students on the ranking list prepared by the committee will be entitled to participate in the Workshop.

The top 3 students on the ranking list prepared by the committee, for the application for the additional 3 places, will be entitled to participate in the Workshop.

A ranked list of remaining candidates will be published and used if any of the selected candidates withdraws.

## Ranking Publication

The ranking of the top 6 students, valid for admission to the International Workshop, will be sent by email until May, 29<sup>th</sup> and also published on FAUP website ([www.arq.up.pt](http://www.arq.up.pt)) along with instructions.

The ranking for positions beyond the selected students will not be published unless withdrawals require revising the participants' names. However, it will still be possible to request via email, using the address ([clara\\_vale@arq.up.pt](mailto:clara_vale@arq.up.pt)), one's position in the ranking.

## Participants' duties

During the training period, each student is required to:

- actively participate in all proposed activities.
- comply with the indicated safety and behavioural rules.

## Titles/Credits

At the end of the Workshop on Digital 3D Cultural Heritage, a certificate of participation will be issued. Foreign students can ask for recognition in their own universities with the certificate.

## Insurance and costs

There are no registration fees for participating in the Workshop.

- Insurance will be covered by FAUP.
- Travel costs for Excursion/sightseeing included in the workshop program will be covered by the Erasmus+ EU Program.
- Materials for 3D printing included in the workshop program will be covered by the Erasmus+ EU Program.