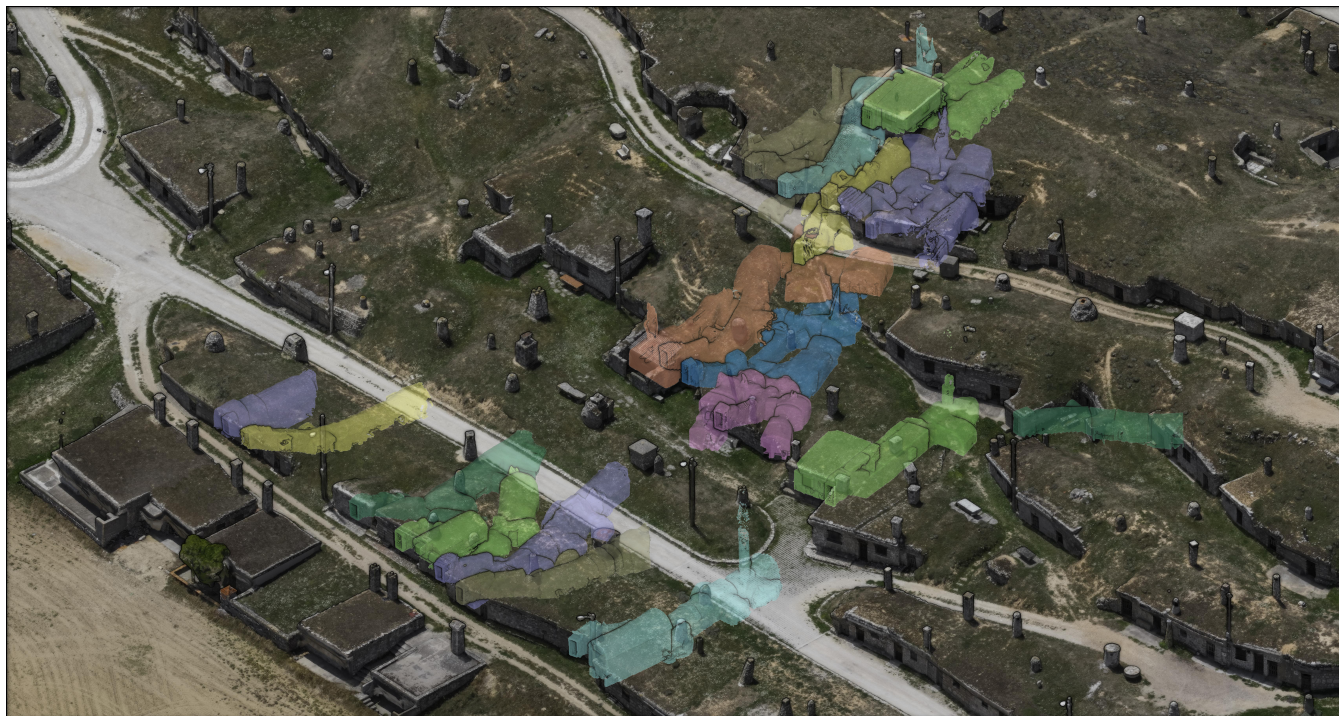


# Laser scanning, drone inspection and photogrammetric surveying

3D Laser Scanning and Photogrammetry Applied to Architecture and Engineering



## Contact information

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- Available

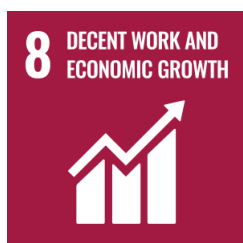
## Technological Offers type

Technological scientific services

## Research and innovation areas

- Architecture, Baukultur and Creativity
- Digital Technologies, Artificial Intelligence, Cybersecurity, 5G, Robotics
- Science For Engineering and Architecture

## ODS



**Available from:** 2019

## Where?

Architectural Heritage analysis and intervention

Keywords: | 3d model | artificial intelligence | Artificial Intelligence | augmented reality | Diagnostic | Digital Tourism | Digital Twin | Drones | Heritage | laser scanning | Photogrammetry | point cloud | reality capture | virtual reality

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## Specialized service for laser scanning, drone inspection, and photogrammetric surveying

Specialized service for 3D surveying of complex environments related to architecture and engineering through laser scanning, drones, and photogrammetric surveying.

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## Market demands

This service aims to meet all demands related to the 3D digitization of real estate and movable property, as well as their subsequent analysis, thanks to a professional team that includes experts in architecture, construction, and surveying.

The offered products range from 3D point clouds and as-built documentation to the analysis derived from the captured data, including – among other things – deformation analysis of slabs, masonry, arches, vaults, construction monitoring, etc.

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## Field of application

All those related to architecture and engineering

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## Differential Advantage

This service is distinguished by two key features:

1. The high performance of the equipment used, which includes high-precision static laser scanning systems, topographic equipment (GPS, Total Station), and photogrammetry equipment (with high-resolution calibrated digital cameras and drones).
  2. A multidisciplinary team with extensive experience and great commitment, consisting of PhDs in Architecture, Architects, Building Engineers, and Surveyors who perfectly understand the potential of 3D digitization and the specific needs for each moment, thus adapting the service to these purposes.
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## Examples of previous references

The team members have extensive experience, highlighted by the following projects:

1. 3D digitization for creating as-built documentation and promotional videos of Classical Temples in the Valley of the Temples (Sicily, Italy)
2. 3D digitization for the restoration project of the Atocha Sculptural Group (Glory and Pegasus) (Madrid, Spain)
3. 3D digitization of the Church of Vera Cruz for restoration and HBIM modeling projects (Segovia, Spain)
4. 3D digitization of underground heritage (Baltanas, Atauta, and Viana Winery Districts) for intervention projects
5. Thermographic inspection with drones for thermal envelope analysis in various neighborhoods of Madrid (Vallecas and Orcasur)
6. Monitoring of deterioration within the Royal Site of La Isabela using 3D point clouds and Artificial Intelligence

7. Automatized analysis of deflections in wooden floors using 3D point clouds and Artificial Intelligence

8. Automatized analysis of deformations in various buildings using 3D point clouds and Artificial Intelligence

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### **Equipment description**

The service utilizes high-performance digitization equipment, including calibrated digital cameras, static laser scanners, and topographic equipment (GPS and Total Station).

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### **How to apply**

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To request the service, please send an email to [lj.sanchez@upm.es](mailto:lj.sanchez@upm.es), describing the purpose of the service. This will allow us to send a personalized offer tailored to the specific needs of each project.