



POLITÉCNICA



AIPA
ANÁLISIS E
INTERVENCIÓN
EN EL PATRIMONIO
ARQUITECTÓNICO

GRUPO DE INVESTIGACIÓN AIPA

ANÁLISIS E INTERVENCIÓN EN EL PATRIMONIO ARQUITECTÓNICO



Nombre: Luis Javier

Apellidos: Sánchez Aparicio

Titulación: Dr. Ingeniero de la Edificación (Universidad de Salamanca)

Profesor/Becario: Profesor Ayudante Doctor

Universidad/Escuela Técnica: UPM-ETSAM

Tipo de Miembro AIPA: Investigador

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Líneas de Investigación / PATRIMONIO HISTÓRICO

- Métodos fotogramétricos y de escaneo láser aplicados al diagnóstico de construcciones históricas.
- Desarrollo de soluciones tecnológicas para la asistencia al diagnóstico y conservación preventiva de edificios históricos.
- Métodos basados en modelos numéricos para la cuantificación de daños en construcciones históricas.
- Correlación Digital de Imágenes aplicada a la caracterización de materiales.

Sexenios investigación: 0

Publicaciones más destacadas /últimos 10 años (máximo 6)

- Mora, R., Sánchez-Aparicio, L. J., Maté-González, M. Á., García-Álvarez, J., Sánchez-Aparicio, M., & González-Aguilera, D. (2021). An historical building information modelling approach for the preventive conservation of historical constructions: Application to the Historical Library of Salamanca. *Automation in Construction*, 121, 103449.
- Sánchez-Aparicio, L. J., Masciotta, M. G., García-Alvarez, J., Ramos, L. F., Oliveira, D. V., Martín-Jiménez, J. A., ... & Monteiro, P. (2020). Web-GIS approach to preventive conservation of heritage buildings. *Automation in Construction*, 118, 103304.
- García-Martin, R., Lopez-Rebollo, J., Sánchez-Aparicio, L. J., Fueyo, J. G., Pisonero, J., & Gonzalez-Aguilera, D. (2020). Digital image correlation and reliability-based methods for the design and repair of pressure pipes through composite solutions. *Construction and building materials*, 248, 118625.
- Masciotta, M. G., Morais, M. J., Ramos, L. F., Oliveira, D. V., Sanchez-Aparicio, L. J., & González-Aguilera, D. (2019). A digital-based integrated methodology for the preventive conservation of cultural heritage: the experience of HeritageCare project. *International Journal of Architectural Heritage*, 1-20.
- Sánchez-Aparicio, L. J., Bautista-De Castro, Á., Conde, B., Carrasco, P., & Ramos, L. F. (2019). Non-destructive means and methods for structural diagnosis of masonry arch bridges. *Automation in Construction*, 104, 360-382.
- Sánchez-Aparicio, L. J., Del Pozo, S., Ramos, L. F., Arce, A., & Fernandes, F. M. (2018). Heritage site preservation with combined radiometric and geometric analysis of TLS data. *Automation in Construction*, 85, 24-39.

Otros/ Aspectos resaltables; Premios, distinciones, Becas, etc./ últimos 10 años

- Premio internacional Coello 2020, CIPA 2017. Premio nacional joven investigador GEICC 2019; Premios por resultados en proyectos de investigación (El Mundo 2018, 2017; 2015; Microsoft 2014). Premio extraordinario Tesis Doctoral (2017).
- Beca de investigación en 2018 para el desarrollo de la plataforma SmarWall en la Muralla de Ávila
- Beca postdoctoral en Ingeniería y Arquitectura en 2019 para desarrollo de modelos Smart en conservación preventiva
- Miembro del Comité CIPA (International Committee of Architectural Photogrammetry)
- Miembro de la Institución Gran Duque de Alba en el campo de las nuevas tecnologías e innovación
- Miembro de la iniciativa europea HeritageCARE para la conservación preventiva del Patrimonio Histórico
- Co-inventor de 3 propiedades intelectuales
- Co-IP de diversos proyectos regionales
- Comité Científico en diversos congresos internacionales
- Revisor y editor invitado en diversas revistas del JCR y revistas indexadas



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AIPA RESEARCH GROUP

ANALYSIS AND INTERVENTION IN THE ARCHITECTURAL HERITAGE



Name: Luis Javier

Surname: Sánchez Aparicio

Degree: PhD in Building Engineering (University of Salamanca)

Teacher/Fellow: Assistant Professor

University/Technical School: ETSAM-UPM

Type of AIPA member (PhD Student, Researcher): Researcher

Email: lj.sanchez@upm.es

Research lines / HISTORICAL HERITAGE

- Diagnosis of historical constructions by means of photogrammetric and laser scanning approaches.
- New tools to assist in the diagnosis and preventive conservation of historical constructions.
- Model-based methods (Finite Element Model Updating) for the damage assessment of historical constructions.
- Digital Image Correlation approaches applied to the evaluation of materials

Research Sexenios (official periods): 0

Most Important Publications last 10 years (maximum 6)

- Mora, R., Sánchez-Aparicio, L. J., Maté-González, M. Á., García-Álvarez, J., Sánchez-Aparicio, M., & González-Aguilera, D. (2021). An historical building information modelling approach for the preventive conservation of historical constructions: Application to the Historical Library of Salamanca. *Automation in Construction*, 121, 103449.
- Sánchez-Aparicio, L. J., Masciotta, M. G., García-Alvarez, J., Ramos, L. F., Oliveira, D. V., Martín-Jiménez, J. A., ... & Monteiro, P. (2020). Web-GIS approach to preventive conservation of heritage buildings. *Automation in Construction*, 118, 103304.
- García-Martin, R., Lopez-Rebollo, J., Sánchez-Aparicio, L. J., Fueyo, J. G., Pisonero, J., & Gonzalez-Aguilera, D. (2020). Digital image correlation and reliability-based methods for the design and repair of pressure pipes through composite solutions. *Construction and building materials*, 248, 118625.
- Masciotta, M. G., Morais, M. J., Ramos, L. F., Oliveira, D. V., Sanchez-Aparicio, L. J., & González-Aguilera, D. (2019). A digital-based integrated methodology for the preventive conservation of cultural heritage: the experience of HeritageCare project. *International Journal of Architectural Heritage*, 1-20.
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Other / Highlights; Awards; Distinctions, Scholarships, etc. /last 10 years

- International award Coello 2020, CIPA 2017; National award GEICC 2019; Awards related with project results on which he was researcher (El Mundo 2018, 2017; 2015; Microsoft 2014). PhD award (2017).
- Research Grant (2018) for the implementation of the platform SmartWall in the Mediaeval Wall of Avila
- Post-doctoral grant in Engineering and Architecture (2019) for the development of SmartModels applied to preventive conservation
- Member of the CIPA committee (International Committee of Architectural Photogrammetry)
- Member of the institution Gran Duque de Alba within the field of research and new technologies
- Member of the european association HeritageCARE for the preventive conservation of Cultural Heritage
- Co-inventor of 3 intellectual properties
- Co-PI of several research projects
- Reviewer and guest editor of several JCR and indexed journals