

Edited Book on

Heritage Informatics: Digital Approach to Heritage Preservation, Documentation and Visualisation

Dr. T. K. Gireesh Kumar and Prof. Olimpia Niglio (Editors)

Heritage Informatics: Digital Approach to Heritage Preservation, Documentation and Visualisation offers a comprehensive exploration of how emerging digital technologies are transforming the ways in which cultural heritage is recorded, preserved, interpreted, and shared. Bridging disciplines such as archaeology, architecture, computer science, and digital humanities, this edited volume brings together academicians, international scholars, practitioners, and technologists to examine the role of digital tools—from 3D scanning and photogrammetry to GIS, virtual reality, and AI—in reshaping heritage practices.

The book is structured around four key thematic areas:

1. **Acquisition and Survey Techniques**, covering the use of technologies such as laser scanning, photogrammetry, LiDAR, drones, digital photography and GIS for the precise capture and analysis of heritage data;
2. **Digital Representation and Visualisation**, exploring how 3D modelling, digital twins, HBIM, virtual and augmented reality, and immersive media can bring heritage to life.;
3. **Digital Documentation, Archiving, and Accessibility**, examining the application of digital technologies to cultural heritage standards and systems for the long-term preservation, management, and open access of digital heritage records. Also, virtual museums, online exhibitions, AI, ML and NLP to expand access to cultural content, incorporating advanced data analysis and pattern recognition.
4. **Digital Heritage Policy and Ethics**, addressing the governance, intellectual property, and ethical considerations that shape responsible digital heritage practices.

Case studies from diverse geographic and cultural contexts illustrate the practical application of these tools, highlighting both opportunities and challenges.

The book is designed for academics, heritage professionals, and policy-makers, and provides a critical and forward-looking perspective on the digital turn in heritage studies. It underscores the importance of interdisciplinary collaboration, ethical considerations, and sustainable practices in leveraging technology for cultural preservation.

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CALL FOR BOOK CHAPTERS

Heritage Informatics

Digital Approaches to Heritage Preservation,
Documentation and Visualisation

No publication fee

Reputed publisher (Springer Nature)

State of the art topics

TOPICS TO COVER

Acquisition and Survey Techniques

- Laser Scanning (Terrestrial and)
- Photogrammetry (Terrestrial and UAV)
- Light Detection and Ranging (LiDAR)
- Reflectance Transformation Imaging
- Multi-Platform Fusion
- GIS and Spacial Analysis
- Digitalization of Materials
- Digital Photography
- Structural and Landscape Analysis

Digital Documentation, Archiving and Accessibility

- Digitisation and Digital Preservation
- Digital Storytelling and Interactive Media
- Virtual Museums/Online Exhibitions
- Artificial Intelligence and Natural Language Processing
- Deep Learning and Machine Learning
- Digital Archives and Databases
- Metadata/Semantic Web/Linked Data
- Ontology/ Interoperability

Digital Representation and Visualisation

- 3D Modelling/3D Mapping/3D Visualisation
- Computational Imaging
- BIM/HBIM/Digital Twin
- Point Cloud/ Dense Cloud/ Mesh Models
- Immersive and Interactive Technologies (AR, VR, MR, AV, XR)

Digital Heritage Policy and Ethics

- Cultural Information and Digital Preservation Standard
- Policy Development and International Frameworks
- Intellectual Property, Licensing and Open Access
- Ethical Principles for Digital workflow
- Ethical framework for Digital Replications
- Ethics by Design and Considerations

The proposal will be submitted to Springer and subject to peer review, following an expression of interest

Prospective authors are invited to submit their proposal outline with Author's details (Name and Affiliation each author); Title, Abstract (at least 200 words) and Keywords (4-6), Language: English, Font: Times New Roman, Size: 12

IMPORTANT DATE

15 SEPTEMBER 2025

Abstract
Submission

15 NOVEMBER 2025

Full Chapter
Submission

10 DECEMBER 2025

Reviews
Notification

20 JANUARY 2026

Revised
Submission

15 FEBRUARY 2026

Camera-ready
Submission

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