



CALL FOR PAPERS

**4th International Conference on
TRANSDISCIPLINARY MULTISPECTRAL MODELLING AND
COOPERATION FOR THE PRESERVATION OF CULTURAL HERITAGE**

Addressing World Challenges

7-9 April 2025 Athens, Greece

Dear Colleague,

We are pleased to announce the 4th International TMM_CH Conference on “Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage, Addressing World Challenges”, that will be held in Athens, Greece, on April 7th – 9th, 2025, following the successful 1st, 2nd and 3rd International TMM_CH Conferences in 2018, 2021 and 2023.

You are invited to submit your research contributions for oral and poster presentations.

For more information about the Conference: <https://www.tmm-ch.com/>

INTERNATIONAL STEERING COMMITTEE

https://www.tmm-ch.com/files/TMM_CH2025_Steering_Committee.pdf

INTERNATIONAL SCIENTIFIC COMMITTEE

https://www.tmm-ch.com/files/TMM_CH2025_Scientific_Committee.pdf

ABOUT THE CONFERENCE

Innovative scientific methodologies and challenging projects marking future trends in the protection of cultural heritage, have initiated a universal conversation within a holistic approach, merging competence from the scientific fields of architecture, civil engineering, surveying engineering, materials science and engineering, information technology and archaeology, as well as heritage professionals on restoration and conservation, stakeholders, industry representatives and policy makers. The combined utilization of digital documentation technologies with innovative analytical and non-destructive techniques, numerical, computational and 3D techniques, archaeometric and archaeogene methods, supports the creation of a transdisciplinary multispectral modeling towards the sustainable preservation of cultural heritage. Innovation is enhancing and revealing a critical dimension of the preservation of cultural heritage along with social participation and communication.

The National Technical University of Athens interdisciplinary team “Protection of monuments” [Prof. A. Moropoulou, Prof. M. Korres, Prof. A. Georgopoulos, Prof. C. Spyrakos, Ass. Prof. C. Mouzakis], scientific responsible for the Holy Aedicule’s rehabilitation of the Holy Sepulchre in Jerusalem, and the Technical Chamber of Greece, in collaboration with the Hellenic network transferring the advanced and interdisciplinary knowhow for sustainable preservation of Cultural Heritage responding to great technical and societal challenges, established at the Technical Chamber of Greece under the completion of EDICULA and RESPECT projects in 2024, in collaboration with international and Greek Organisations and Universities, organize the 4th TMM_CH International Conference on “Transdisciplinary Multispectral Modelling and



Cooperation for the Preservation of Cultural Heritage: Recapturing the World in Conflict through Culture, promoting mutual understanding and Peace”, on 7-9 April 2025 in Athens, Greece, opening future opportunities in the original agora of our technological and democratic roots.

The Conference is organized by the National Technical University of Athens in cooperation with the Technical Chamber of Greece, counting the auspices of H.E. the President of the Hellenic Republic, Ms Katerina Sakellaropoulou, and the benedictions bestowed by His All Holiness, Ecumenical Patriarch, Bartholomew I of Constantinople, His Beatitude Archbishop Hieronymus II of Athens and All Greece, and the three Christian leaders of the Status Quo in the Holy Sepulchre in Jerusalem and the Holy Land.

Distinguished scientists and representatives of the National Geographic Society, the Cultural Heritage Finance Alliance, the International Council of Monuments and Sites ICOMOS, the Organization of World Heritage Cities OWHC, the European Society for Engineering Education SEFI, the European Construction Technology Platform ECTP, the International Federation of Surveyors FIG, the International Committee CIPA Heritage Documentation, the World Monuments Fund, AHEPA Hellas and other major International and European Organizations, Associations, networks Universities and Research Centers in the field of cultural heritage preservation, participate in the International Steering and Scientific Committees which had successfully organized the 1st, 2nd and 3rd TMM_CH Conferences in 2018, 2021 and 2023. The conference will be held at the Eugenides Foundation in hybrid format. On-site attendance and oral presentation is required.

Further to the achievements of the previous TMM_CH Conferences, the latest developments in research and innovation that identify novel trends to build an interdisciplinary approach to conservation and holistic digital documentation of cultural heritage is attempted at the 4th TMM_CH. The utilization and reuse of monuments, historic cities and sites, forms the framework of a sustainable preservation of cultural heritage, in accordance with the principles of circular economy; in terms of respect and protection of values, materials, structures, architecture and landscape; with an informed society, able to participate effectively in the policies that will design and implement the new strategies required.

Sharing knowledge, experiences, and recommendations about sustainable cultural heritage approaches and practices at a moment of world challenges to be addressed, new dynamics are established towards future changes.

Conference Topics

- Emblematic works as source of innovation and transdisciplinarity
- Resilience to Climate Change, Natural Hazards and Pandemic Risks - Biosafety
- Novel Educational Approach for the Preservation of Cultural Heritage
- Preserving Compatibility, the Materiality and Integrity of Structures and Architectural Authenticity
- Advanced Non-Destructive and Structural Techniques for Diagnosis, Redesign and Health Monitoring
- Earthquake and structural rehabilitation
- Digital Heritage: a holistic approach
- Artificial Intelligence in Cultural Heritage
- Archaeology - Archaeometry – Archaeogene - *Honorary Special Session in memoriam Nikos Zacharias*
- Bridging Heritage Stakeholders, Art, Science and Industry - Cultural Heritage preservation and society - Intellectual Property Rights
- Dialogue between religious monuments, preservation works and values
- Transdisciplinary dialogue for World Heritage at risk and conflict
- Green and blue deal for local and regional Sustainable Development
- Historic cities and centers: New Reuse and preservation strategies applying Circular Economy



- Tourism, sustainable revival through Cultural Heritage and environmental assets
- Cultural heritage preservation addressing energy challenges
- The New European Bauhaus creative and interdisciplinary initiative
- Rebranding the World in conflict through Culture, mutual understanding and Peace

CALL FOR PAPERS

The International Steering Committee and the International Scientific Committee welcome research contributions for oral and poster presentations.

Submitted papers will be peer reviewed. Please check important dates for submission deadlines.

Accepted papers will be distributed into sessions. Plenary lectures [after invitation] will cover major accomplishments, innovations and challenges.

Full papers need to be a minimum of 12 pages and no more than 20 pages and written in English. You can submit papers via EasyChair, using the conference link:

<https://easychair.org/conferences/?conf=tmm-ch2025>

PUBLICATIONS

Accepted papers will be published, following the precedent set by the 1st, 2nd, and 3rd TMM_CH conferences. These publications will be made available in 2025, after the conference, in esteemed international journals such as: **Springer Proceedings in Materials SPM**, **SCIENTIFIC CULTURE**, **Communications in Computer and Information Science CCIS**, *Land an Open Access Journal by MDPI*, **Buildings**, **Technical Annals TA**, **Intrecci**, **JOCCH – ACM Journal of Computing and Cultural Heritage**

IMPORTANT DATES

First announcement and Call for Participation: April 9th, 2024

Extended Abstract Submission Deadline: November 21st, 2024

Notification of Acceptance/Rejection: December 10th, 2024

Full paper submission deadline: January 21st, 2025

Notification of author's acceptance: February 21st, 2025

Announcement of preliminary program: February 27th, 2025

Completion of early bird registration: March 7th, 2025

Revised paper submission: March 7th, 2025

Further revisions may be requested to comply with specific publication requirements

Announcement of the final program: March 9th, 2025

Conference dates: April 7th-9th, 2025

Publications of papers: Post Conference, 2025 - 2026

The President of the International TMM_CH Conference
Emer. Prof. A. Moropoulou