

1st International Conference TMM_CH

Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage

10-13 October, 2018 Eugenides Foundation Athens, Greece

[Preliminary Program](#)

Preliminary Program



10 October at 17:00-20:00 Byzantine & Christian Museum of Athens

- Welcome Reception
- Visit to the Digital Exhibition of Advanced Technology «The Tomb of Christ: The monument and the project»



11-13 October Eugenides Foundation

- 11 October at 9:00-11:00: Opening Session
- 11-12 October: Conference Session
- 13 October: Scientific walk in the footsteps of the Greek Peripatetic Philosophical School

ABOUT

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 capabilities and know-how 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 and policy makers in cultural heritage. The combined utilization of digital documentation technologies with innovative analytical and non-destructive techniques, computational and digital techniques and archaeometric methods supports the creation of a transdisciplinary multispectral modelling 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. Emer. M. Korres, Prof. A. Georgopoulos, Prof. C. Spyarakos, 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 cooperation with the Ministry of Culture and Sports and the Ministry of Digital Policy, Telecommunications and Media of the Hellenic Republic, organize the **1st International Conference on “TRANSDISCIPLINARY MULTISPECTRAL MODELLING AND COOPERATION FOR THE PRESERVATION OF CULTURAL HERITAGE”** [TMM_CH] on 10–13 October 2018, in Athens, Greece, discussing modern trends in the original agora of our technological and democratic roots.

TMM_CH international conference is organized under the auspices of H.E. the President of the Hellenic Republic, with the support of the Hellenic Parliament, in cooperation with the National Geographic Society, World Monuments Fund, ICOMOS, European Construction Technology Platform, European Society for Engineering Education SEFI, and other major international and European organizations, associations and networks in the field of cultural heritage preservation.

The conference will be held at the Eugenides Foundation, with reference to the Digital Exhibition of Advanced Technology “Tomb of Christ: the Monument and the Project” at the Byzantine and Christian Museum of Athens [21 May 2018 until 31 January 2019]. Scientific walk and talk visits to Acropolis and Ancient Agora [in the footsteps of the Greek Peripatetic Philosophical School] and other major archaeological sites are planned on 13 October 2018.

The International Steering Committee and the International Scientific Committee welcome research contributions for oral and poster presentations in English. The submitted abstracts and papers will be peer reviewed. Accepted papers will be divided into sessions. Plenary lectures [after invitation] will cover major accomplishments, trends and technical challenges. Please check important dates for submission deadlines.

Selected papers will be published in Springer Computer Science Proceedings, available in 2018 following the Conference.

TOPICS

- Cultural heritage identity
- Cultural heritage revealing of values and historic representation
- Cultural heritage management towards sustainable development (tourism et al)
- Education and training for the preservation of cultural heritage
- History of architecture, historic materials and structures of cultural heritage
- Geometric documentation
- Digital, augmented (AR) and virtual (VR) documentation of cultural heritage
- 3D reconstruction of cultural heritage
- Interdisciplinary risk assessment and preservation of cultural heritage: design, materials and interventions / documentation, diagnosis, conservation, preservation, rehabilitation, reconstruction, restoration
- In situ advanced diagnostics and inspection by non-destructive techniques, robotics and unmanned aerial vehicles
- Laboratory testing and methods for characterization and validation of historic materials and structures
- Compatible and performing, repair and strengthening materials and techniques
- Criteria, methodologies and techniques to assess sustainable and compatible materials and interventions techniques
- Numerical modeling and structural analysis
- Seismic analysis and retrofit
- Standards, metadata, ontologies and semantic processing in cultural heritage
- Tools for multidimensional and multidisciplinary modeling
- Monitoring of monuments' response to environmental stresses and of structural health
- Enhancing resilience of cultural heritage against climate change and natural hazards
- Interdisciplinary knowledge based decision making
- Management of cultural heritage preservation projects and strategies
- Interdisciplinary projects and methodologies
- Historic architectural sites and preserved monuments as open labs of innovation and sustainable socioeconomic development
- Transdisciplinary cooperation and innovation for the preservation of cultural heritage
- Stakeholders' requirements for cultural heritage preservation
- Socio-economic and cultural impact of cultural heritage preservation
- Historic cities and centers: new strategies for protection by development and reuse
- Circular economy and innovative strategies for sustainable preservation of cultural heritage
- From research and innovation to policy for cultural heritage preservation
- Education and training for the preservation of cultural heritage
- Cultural heritage preservation with social accessibility and engagement

IMPORTANT DATES

15
MAR

First announcement
March 15th, 2018

5
JUL

Abstract submission deadline
July 5th, 2018

23
JUL

Abstract and Full Paper submission
deadline
July 23th, 2018

3
SEP

Final Paper submission deadline
September 3rd, 2018

30
SEP

Notification of authors' acceptance
September 30th, 2018

3
OCT

Announcement of preliminary program
October 3rd, 2018

3
OCT

Early bird registration
October 3rd, 2018

10
OCT

Conference dates
October 10th-13th, 2018

GUIDELINES TO AUTHORS

The International scientific committee welcomes research contributions for oral and poster presentations in English.

Abstracts should have a maximum of 350 words and should be in English. You can submit abstracts via EasyChair, using the conference link: <https://easychair.org/conferences/?conf=tmm-ch2018>

For the preparation of all papers, please follow [Guidelines for Proceedings Authors](#)

Submitted abstracts and papers will be peer reviewed.

Selected papers will be published in [Springer Computer Science Proceedings](#) after acceptance by the reviewers if submitted before the appropriate deadlines and will be available in 2018 following the Conference.

Accepted papers will be divided into sessions. Key-note lectures will cover major accomplishments, trends and technical challenges.

Please check [important dates](#) for submission deadlines.

Please Note: Abstracts and full papers will be accepted by the July 23rd, 2018



ORGANISATION

ORGANISERS

- National Technical University of Athens
- Technical Chamber of Greece

IN COLLABORATION WITH

- Ministry of Culture and Sports of the Hellenic Republic
- Ministry of Digital Policy, Telecommunications and Media of the Hellenic Republic

UNDER THE AUSPICES

- H.E. the President of the Hellenic Republic

WITH THE SUPPORT

- Hellenic Parliament

GREEK NETWORK FOR TRANSDISCIPLINARY MULTISPECTRAL MODELLING AND COOPERATION FOR THE PRESERVATION OF CULTURAL HERITAGE

- National Technical University of Athens
- Panteion University of Social and Political Sciences
- University of Piraeus
- Aristotle University of Thessaloniki
- University of Patras
- University of Ioannina
- Technical University of Crete
- Democritus University of Thrace
- University of the Aegean
- Ionian University
- University of Thessaly
- University of the Peloponnese
- University of West Attica
- School of Pedagogical & Technological Education

IN COOPERATION WITH

- National Geographic Society
- World Monuments Fund
- International Council of Monuments and Sites ICOMOS
- Organization of World Heritage Cities OWHC
- The Getty Conservation Institute
- Heritage Documentation CIPA
- International Federation of Surveyors FIG
- European Construction Technology Platform ECTP, Heritage and Regeneration Committee
- European Society for Engineering Education SEFI
- European Council of Academies of Applied Science, Technologies and Engineering Euro-Case
- Research Project INCEPTION "Inclusive Cultural Heritage in Europe through 3D semantic modeling INCEPTION
- EU ERA Chair - UNESCO Chair on Digital Cultural Heritage
- UNESCO Chair "Culture, Tourism, Development"
- NTUA Post-Graduate MSc Program "Protection of Monuments"
- AUTH Post-Graduate Msc Program "Protection, Conservation and restoration of Civilization Monuments"
- Hellenic National Commission for UNESCO
- Cyprus Scientific and Technical Chamber ETEK
- Hellenic Section of ICOMOS
- International Council of Museums Hellenic National Committee
- International Committee for the Conservation of Industrial Heritage TICCIH Greece
- Society for the Environment and Cultural Heritage, Council of Architectural Heritage
- do.co.mo.mo Greece



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Technical Chamber of Greece, Directorate of European Affairs & International Relations, Department of International Relations

REGISTRATION FEES AND PAYMENT

	Deadline for early bird registration	Deadline for general registration ^{1, 2, 3}
Date	October 3 rd , 2018	Conference dates
Full registration ⁴	120 €	150 €
Student registration ^{5, 6}	50 €	75 €

¹ At least one author must pay registration before the indicated deadline in order to include the submitted paper in the proceedings.

² For each paper to be presented in the Conference, at least one author should cover full / student registration fee.

³ Anyone planning on attending the conference must register on-line. The online registration form will be available soon. On-line registration will remain open during the conference. On-site registration will not be available. Registration fee can only be paid (i) via bank transfer until October 12th, 2018 or (ii) by credit or debit cards via Eventora platform before and during the conference.

⁴ Full registration includes: access to all sessions, coffee and lunch breaks and conference material. Full registration fee does not cover Conference Proceedings.

⁵ Student registration is applicable for undergraduate students, postgraduate students and PhD candidates and includes: access to all sessions, coffee and lunch breaks and conference material. Student registration fee does not cover Conference Proceedings. A proof of the student status must be presented to the Conference Secretariat during the conference.

⁶ It was suggested by the Organizing Committee that the members of the International Steering Committee and the International Scientific Committee, apart from the major contributing organizers, can register with the early bird student registration fee.

Venue



Exhibition Guide

Digital Exhibition of Advanced Technology “Tomb of Christ: The Monument and the Project” at the Byzantine and Christian Museum

The emblematic project of the conservation and rehabilitation of the Holy Aedicule of the Holy Sepulchre in the Church of Resurrection in Jerusalem, that was successfully accomplished by the Interdisciplinary Team of the National Technical University of Athens and delivered to the three Christian Communities, Guardians of the Holy Tomb, in March 2017, is presented in the Temporary Digital Exhibition of Advanced Technology “Tomb of Christ: the Monument and the Project” at the Byzantine and Christian Museum from 21 May 2018 until 31 January 2019.

This virtual digital Exhibition consists of two parts. In the first part, data derived from the virtual Exhibition “Tomb of Christ” of the National Geographic Museum in Washington D.C. is presented, bestowed to the NTUA Interdisciplinary Team by the Curator of the NG Museum Exhibition and NGS Archaeologist, Dr. Fredrik Hiebert, and the Director of the NG Museum, Mrs Kathryn Keane. In the second part, data provided by the NTUA Interdisciplinary Team, acquired during the project and further processed and analyzed. Especially, findings that arose after the opening of the Holy Tomb for the first time after five centuries. This interactive exhibition uses new technologies and 3D models, so that the visitors can “travel in mind” to Jerusalem, the Church of Resurrection and “see in person” the monument and the rehabilitation works of the Holy Aedicule, as well as to reveal the values of the Tomb of Christ.

Special acknowledgements are attributed to the three Christian Communities, Guardians of the Holy Tomb, the Greek-Orthodox Patriarchate of Jerusalem, the Franciscan Order in the Holy Land, and the Armenian Patriarchate of Jerusalem, for bestowing the scientific responsibility of the Holy Aedicule’s rehabilitation upon the NTUA Interdisciplinary Team, and for giving their blessings for the implementation of this exhibition. The exhibition is organized with the cooperation of the Ministry of Culture and Sports of the Hellenic Republic with the National Technical University of Athens, the support of the Ministry of Digital Policy, Telecommunications and Media of the Hellenic Republic and is held under the auspices of HE the President of the Hellenic Republic, Mr Prokopios Pavlopoulos. It is organized with the support of the Hellenic Parliament and with the blessings of His Beatitude, Archbishop Ieronymos II of Athens and All Greece, and of the Holy Synod of the Church of Greece.

The exhibition is open to public from Tuesday to Sunday from 8:00 until 20:00 and on Mondays from 12:00 until 20:00. Due to type of the exhibition including shows, booking of tickets is suggested at www.viva.gr or by calling 11876.



Eugenides Foundation

The Eugenides Foundation was established in 1956 as a non-profit-making legal entity in private law. Its purpose was to implement the wishes expressed in the last testament of the late Eugenios Eugenides, a benefactor of the Greek nation. Registered and based in Athens, its founding charter states that its objective is to contribute to the education of young Greeks in science and technology.

Access to the Foundation

