

MARIA STAVROULAKI
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Biographical note

Born in Chania, Crete, Greece. Diploma of Civil Engineering from Aristotle University of Thessaloniki, Polytechnic School, Department of Civil Engineering (1988) and PhD Degree from Technical University of Crete, Department of Sciences (1996) with Ph.D Thesis entitled 'Optimal Design for Methods of Restoration and Strengthening of Structures. Application on Prestressing.

Professor (2025), Associate Professor (2020), Assistant Professor, School of Architecture (2013). Lecturer, Department of Sciences, Applied Mechanics Laboratory, expertise to 'Computational Mechanics for Heritage Structures', (2005).

- **Research experience** as scientific director in 7 and as a scientific member of the group of principal scholars in 19 research programs (European, Community, regional) related to the analysis of structures (mainly historical and monumental structures from masonry of stonework) and materials, the assessment of the structural condition of monumental structures, their static and dynamic (aseismic) behavior and the implementation of methods of structural maintenance and restoration. Experience in the analysis of constructions using computational methods (finite element method).

- **Publications related to the domain of the project:**

Books: 2 (Basil Leftheris, Maria E. Stavroulaki, Argyro C. Sapounaki, Georgios E. Stavroulakis, 'Computational methods for heritage structures', WIT Press, Southampton, U.K., 2006.

Stavroulakis Georgios, Mourantova-Kondadaki Alik, Stavroulaki Maria, 'Computational Engineering', Electronic book, 2015, ISBN: 978-960-603-502-9 (in Greek))

Scientific papers to international peer-reviewed journals: 30 (Most of them refer to issues of analysis, assessment of static adequacy and restoration of monumental structures)

1. M.E. Stavroulaki, G.E. Stavroulakis, B. Leftheris (1997), 'Modelling prestress restoration of buildings by general purpose structural analysis optimization software', *Computers and Structures*, Vol.62, No.1, pp81-92, Elsevier Science Ltd.

2. M.E. Stavroulaki, B. Leftheris, G.E. Stavroulakis (1997), 'Optimal prestress in modal analysis via induced temperature modelling', *Structural Optimization*, 13, pp95-103, Springer Verlag.
3. M.E. Stavroulaki, A. Sapounaki, B. Leftheris, E. Tzanaki (1998), G.E. Stavroulakis, 'Materials modelling and modal analysis of the lighthouse in the venetian harbour of Chania', *Technische Mechanik*, 18(4), pp.251-259.
4. Z. Agioutantis, E. Chatzopoulou and M. E. Stavroulaki (2000), 'A numerical investigation of the effect of the interfacial zone in concrete mixtures under uniaxial compression', *Cement and Concrete Research*, 30, pp. 5-723.
5. M. E. Stavroulaki, G.E. Stavroulakis (2002), "Unilateral contact applications using FEM software", 'Invited paper' in *International Journal of Applied Mathematics and Computer Sciences, Special Issue: Mathematical Modeling and Numerical analysis in Solid Mechanics*, Guest Editors: M. Sofonea, J.M. Viano, 12(1).
6. C. P. Proidakis, D.-P. N. Kontoni, M. E. Voutetaki and M. E. Stavroulaki (2008), 'Comparisons of smart damping treatments based on FEM modeling of electromechanical impedance', *Smart Structures and Systems*, Techno Press, 4(1).
7. Maria E. Stavroulaki, Vagelis B. Liarakos (2012), 'Dynamic analysis of a masonry wall with reinforced lintels or tie beams', *Engineering Structures*, Elsevier, 44, pp. 23-33.
8. P. Maravelaki-Kalaitzaki, Z. Agioutantis, E. Lionakis, M. Stavroulaki, V. Perdikatsis (2013), " Physico-chemical and Mechanical Characterization of Hydraulic Mortars Containing Nano-Titania for Restoration Applications" , *Journal Cement & Concrete Composites*, 36, pp. 33-41.
9. Maria Stavroulaki and Dimitrios Sotiropoulos (2012), 'The energy of generalized logistic maps at full chaos', *Chaotic Modeling and Simulation (CMSIM)* 3, pp. 543-550.
10. Angeliki Papalou, Maria E. Stavroulaki (2013), 'Structural analysis of historic masonries', *International Journal of Engineering and Technology*, 2(2), 100-104. (open access journal)
11. M.E. Stavroulaki, K. Pateraki (2013), 'Dynamic response of masonry walls in connection with reinforced concrete frame', 'Recent Advances in Contact Mechanics', *Lecture Notes in Applied and Computational Mechanics* 56, Ed. G.E. Stavroulakis, Springer, pp. 257-273.
12. Costas Proidakis, K. Stefanaki, M. Voutetaki, J. Tsompanakis and M. Stavroulaki (2014), 'A near and far-field monitoring technique for damage detection in concrete structure', *Structural Monitoring and Maintenance*, 1(2), pp.159-171.
13. Proidakis, C.P.; Stefanaki, K.D.; Voutetaki, M.E.; Tsompanakis, Y.; Stavroulaki, M. (2014). Damage detection in concrete structures using a simultaneously activated multi-mode PZT active sensing system: Numerical modelling. *Structure and Infrastructure Engineering* 10(11), pp.1451–1468.
14. Maria Stavroulaki, Angeliki Papalou (2014), 'Parametric analysis of old multi-leaf masonry walls', *International Journal of Conservation Science* 5(4), pp. 435-446.

15. Providakis Costas, Tsistrakis Stavros, Voutetaki Maristella, Tsompanakis Yiannis, Stavroulaki Maria, Agadakos John, Kampianakis Eleftherios, Pentas George (2015), 'A new damage identification approach based on impedance-type measurements and 2D error statistics', *Structural Monitoring and Maintenance* 2(4), pp. 319-338.
16. [Costas Providakis](#), [Stavros Tsistrakis](#), [Maristella Voutetaki](#), [John Tsompanakis](#), [Maria Stavroulaki](#), [John Agadakos](#), [Eleftherios Kampianakis](#), [George Pentas](#) and [Evangelos Liarakos](#) (2016), An Innovative Active Sensing Platform for Wireless Damage Monitoring of Concrete Structures, *Current Smart Materials* 1, pp. 49-62
17. Conde B., Drosopoulos G.A., Stavroulakis G.E., Riveiro B., Stavroulaki M.E. (2016), 'Inverse analysis of masonry arch bridges for damaged condition investigation: Application on Kakodiki bridge', *Engineering Structures* 127, pp. 388-401
18. Stavroulaki M.E., Riveiro B., Drosopoulos G.A., Solla M., Koutsianitis P., Stavroulakis G.E. (2016), 'Modelling and Strength Evaluation of Masonry Bridges Using Terrestrial Photogrammetry and Finite Elements', *Advances in Engineering Software* 101, pp. 136-148
19. Stavroulaki M.E., Drosopoulos G.A., Tavlopoulou E., Skoutelis N., Stavroulakis G.E. (2018), Investigation of the Structural Behaviour of a Masonry Castle by Considering the Actual Damage, *International Journal of Masonry Research and Innovation* 3, pp. 1-33
20. Georgios A. Drosopoulos, Konstantinos Giannis, Maria Stavroulaki and Georgios E. Stavroulakis (2018) Metamodeling-Assisted Numerical Homogenization for Masonry and Cracked Structures, *Journal of Engineering Mechanics*, American Society of Civil Engineering, 144(8), DOI:10.1061/(ASCE)EM.1943-7889.0001500
21. Drosopoulos G.A., Phakwago J., Stavroulaki M.E., Stavroulakis G.E. (2019) Investigation of the Structural Response of Masonry Structures. In: Moropoulou A., Korres M., Georgopoulos A., Spyrakos C., Mouzakis C. (eds) *Transdisciplinary Multispectral Modeling and Cooperation for the Preservation of Cultural Heritage. TMM_CH 2018. Communications in Computer and Information Science*, 962, pp. 143–156. Springer, Cham https://doi.org/10.1007/978-3-030-12960-6_10
22. Maria E. Stavroulaki (2019) Dynamic behaviour of aggregated buildings with different floor systems and their finite element modeling, *Frontiers in Building Environment, Computational Methods in Structural Engineering*, 22 November 2019, <https://doi.org/10.3389/fbuil.2019.00138>
23. Motsa S.M., Drosopoulos G.A., Stavroulaki M.E., Maravelakis E., Borg R.P., Galea P., d'Amico S., Stavroulakis G.E. (2020), "Structural Investigation of

Mnajdra Megalithic Monument in Malta”, *Journal of Cultural Heritage*, 41, 96-105

24. Georgios E. Stavroulakis, Ioannis Menemenis, Maria E. Stavroulaki and Georgios A. Drosopoulos (2020) Collapse Prediction and Safety of Masonry Arches, Book *Natural Risk Management and Engineering, NatRisk Project*, Eds: Milan Gocić, Giuseppe Tito Aronica, Georgios E. Stavroulakis, Slavisa Trajkovic, Springer International Publishing, Chapter 9, 191-201.
25. Barbara Charalambidi, Panagiotis Koutsianitis, Siphesihle MphoMotsa, Georgios Tairidis, Amalia Kasampali, Georgios Drosopoulos, Maria Stavroulaki, Georgios Stavroulakis (2022) ‘Modelling, identification and structural damage investigation of the Neoria monument in Chania’, *Developments in the Built Environment*, Vol. 10, 100069
26. Tapkın, Serkan, Tercan, Emre, Motsa, Siphesihle Mpho, Drosopoulos, Georgios, Stavroulaki, Maria, Maravelakis, Emmanuel and Stavroulakis, Georgios (2022) ‘Structural Investigation of Masonry Arch Bridges Using Various Nonlinear Finite-Element Models.’ *Journal of Bridge Engineering*, 27 (7). ISSN 1084-0702
27. Stavroulakis, G.E., Charalambidi, B.G.; Koutsianitis, P. (2022) Review of Computational Mechanics, Optimization, and Machine Learning Tools for Digital Twins Applied to Infrastructures. *Appl. Sci.* 2022, 12, 11997. <https://doi.org/10.3390/app122311997>
28. Liolios, A., Stavroulaki, M., Liolios, K., & Konstandakopoulou, F. (2023). Historic adjacent concrete buildings strengthened by cable-ties under seismic pounding effects: A stochastic approach considering uncertain input parameters. *Technical Annals*, 1(3). <https://doi.org/10.12681/ta.34867>
29. Maria E Stavroulaki, Amalia Kasampali, Barbara Charalambidi, Siphesihle Mpho Motsa, Georgios A Drosopoulos, Georgios E Stavroulakis (2023) Linear and Nonlinear Earthquake Analysis for Strength Evaluation of Masonry Monument of Neoria, *Buildings*, 13(9), 2204, MDPI, <https://doi.org/10.3390/buildings13092204>
30. Maria E. Stavroulaki, Ioannis (Yannos) Liofagos, Panagiotis Darmarakis (2024) Structural Behaviour and Strength Evaluation of a Venetian Church through Finite Element Analysis, *Buildings* 14(5), 1282, MDPI, <https://doi.org/10.3390/buildings14051282>

Scientific papers to Conference Proceedings: 64

1. B. Leftheris, E. Tzanaki, M. Stavroulaki, 'Dynamic criteria for reinforcement of old buildings', in *Proceedings of STREMA93, Structural Studies, Repairs and Maintenance of Historical Buildings III*, Editors: C.A. Brebbia, R.J.B. Frewer, Bath, U.K., 1993.
2. M. Stavroulaki, B. Leftheris, 'Application of response spectrum analysis in historical buildings', in *Proceedings of STREMA95, Structural Studies, Repairs*

- and Maintenance of Historical Buildings IV*, Vol.2, pp93-100, Editors: B. Leftheris, C.A. Brebbia, Chania, 1995.
3. B. Leftheris, M. Stavroulaki, E. Tzanaki, Dynamic criteria applications for analysis of the static and dynamic sufficiency of masonry structures', in *Proceedings of STREMA95, Structural Studies, Repairs and Maintenance of Historical Buildings IV*, Vol.2, pp101-108, Editors: B. Leftheris, C.A. Brebbia, Chania, 1995.
 4. B. Leftheris, M.E. Stavroulaki, E. Tzanaki, A. Sapounaki, G.E. Stavroulakis, 'Modal identification and aseismic inspection of a masonry lighthouse in the venetian harbor of Chania, in *Proceedings of The International Conference on Earthquake Engineering*, pp 701-711, Amman, Jordan, 1995.
 5. M.E. Stavroulaki, G.E. Stavroulakis, B. Leftheris, 'Modelling prestress restoration for static and earthquake loading by general purpose structural analysis and optimization software', in *Proceedings of 2nd National Congress on Computational Mechanics*, Vol.1, pp26-33, Editors: D.A. Sotiropoulos, D.E. Beskos, Chania, 1996.
 6. M.E. Stavroulaki, B. Leftheris, G.E. Stavroulakis, 'Optimal prestress strengthening of a masonry lighthouse for static and earthquake loading', in *Proceedings of Earthquake Resistant Engineering Structures*, pp535-544, Editors: G.D. Manolis, D.E. Beskos, C.A. Brebbia, Thessaloniki, 1996.
 7. M.E. Stavroulaki, A. Sapounaki, B. Leftheris, G.E. Stavroulakis, 'Influence of the type of masonry construction on the dynamic, response spectrum analysis', in *Proceedings of STREMAH97, Structural Studies, Repairs and Maintenance of Historical Buildings*, pp.487-497, Editors: S. Sanchez-Beitia, C.A. Brebbia, Spain, 1997.
 8. M.E. Stavroulaki, A.K. Sapounaki, G.E. Stavroulakis, B.P. Leftheris, 'The mantle of shotcrete as a method of intervention of masonry structures', in *Proceedings of STREMAH99, Structural Studies, Repairs and Maintenance of Historical Buildings*, pp. 757-766, Editors: , C.A. Brebbia, Dresden, Germany, 1999.
 9. B.P. Leftheris, M.E. Stavroulaki, A.K. Sapounaki, E. Tsofopoulou-Gkini, 'The bridges build by the English during the early part of the last century in the Ionian Island of Kythera', in *Proceedings of STREMAH99, Structural Studies, Repairs and Maintenance of Historical Buildings*, pp.303-312, Editors: C.A. Brebbia, W. Jager, Dresden, Germany, 1999.
 10. Costas P. Providakis, Stelios I. Mikrakis, Niki K. Garofalaki, Maria E. Stavroulaki, 'Finite element analysis of contact problems in rubber covered rolls', in *Proceedings of IASS-IACM 2000, Fourth International Colloquium on Computation of Shell & Spatial Structures*, Chania-Crete, Greece, 2000.
 11. Maria E. Stavroulaki, Andrew Stevenson, Stephen Bowron, 'Finite element analysis of rubber coated rollers contact problem and the phenomena of friction', in *Proceedings of IASS-IACM 2000, Fourth International Colloquium on Computation of Shell & Spatial Structures*, Chania-Crete, Greece, 2000.
 12. M. E. Stavroulaki, A. C. Sapounaki, G.E. Stavroulakis, B. Leftheris, "Influence of strengthening techniques on the dynamic response of masonry structures", in

- Proceedings of STREMAH 2001, Structural Studies, Repairs and Maintenance of Historical Buildings*, pp.383-393, Editors: C.A. Brebbia, Bologna, Italy, 2001.
13. Basil Leftheris, Georgios E. Stavroulaki, Maria E. Stavroulaki, Argyro C. Sapounaki, "Heritage structures are the benchmarks of our cultural evolution", in *Proceedings of STREMAH 2001, Structural Studies, Repairs and Maintenance of Historical Buildings*, pp.633-643, Editors: C.A. Brebbia, Bologna, Italy, 2001.
 14. M.E. Stavroulaki, A.K. Sapounaki, B.P. Leftheris, G.E. Stavroulakis, "Nonlinear finite elements for damage analysis of the Plaka stone bridge in Epirus", in *Proceedings of 4th Congress on Computational Mechanics*, GRACM2002, Patra, 2002.
 15. M.E. Stavroulaki, G.E. Stavroulakis, "Unilateral frictional contact nonlinearities in aseismic design and restoration of heritage structures", in *Proceedings of the International conference on Nonsmooth/Nonconvex Mechanics, with Applications in Engineering*, Editor: C.C. Baniotopoulos, pp. 209-216, Thessaloniki, Greece, 2002.
 16. M.E. Stavroulaki, G.E. Stavroulakis, "Unilateral contact analysis and failure prediction in stone bridges", in *Proceedings of STREMAH 2003, Structural Studies, Repairs and Maintenance of Historical Buildings*, 7-9 May, Halkidiki, 2003.
 17. M.E. Stavroulaki, 'Finite element analysis of a stone bridge for failure prediction', in *7th National Congress on Mechanics*, 24-26 June, Chania, Crete, Greece, 2004.
 18. C.P. Providakis, J. Xyrogianis, M. Stavroulaki, 'Comparative studies on performance of base isolation devices for near-fault earthquake ground motions implants', in *7th National Congress on Mechanics*, 24-26 June, Chania, Crete, Greece, 2004.
 19. C.P. Providakis, S. Kourtakis, M. Stavroulaki, "Analysis of creep fracture problems in metals by using strain energy rate distributions", in *7th National Congress on Mechanics*, 24-26 June, Chania, Crete, Greece, 2004.
 20. G.E. Stavroulakis, G.A. Drosopoulos, M.E. Stavroulaki, C.V. Massalas, A.A. Liolios: 'Solvability and limit analysis of masonry bridges', CMIS 2005, Hannover, July, 2005. Τα αποτελέσματα δημοσιεύθηκαν σαν κεφάλαιο στον συλλογικό τόμο που ακολούθησε το συνέδριο: [*Analysis and Simulation of Contact Problems*](#), *Lecture Notes in Applied and Computational Mechanics*, Editors: Wriggers Peter, Nackenhorst Udo, 27, pp. 389-390, Springer Berlin / Heidelberg, 2006.
 21. C. P. Providakis, M. E. Voutetaki, M. E. Stavroulaki & D.- P. N. Kontoni, "FEM Modeling of Electromechanical Impedance for the Analysis of Smart Damping Treatments", in *Proceedings of the "International Conference on Industrial Electronics, Technology & Automation 2005 (IETA 05) - International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering 2005 (CISSE 2005, CIS²E 05)"*, 12-18 Dec. 2005, DVD-ROM Proceedings, 2005, and also in Hardcover Proceedings "Advances in Computer, Information, and Systems Sciences, and Engineering – Proceedings of IETA 2005, TeNe 2005 and

- EIAE 2005*”, Elleithy K., Sobh T., Mahmood A., Iskander M. & Karim M. (Eds.), Springer, pp. 129-133, 2006.
22. C. P. Providakis, M. E. Voutetaki, D.- P. N. Kontoni & M. E. Stauroulaki, “A Comparison of active constrained layer damping treatments using FEM modeling of electromechanical impedance”, in “*Advances in Computational & Experimental Engineering and Sciences - Proceedings of the ‘International Conference on Computational & Experimental Engineering and Sciences’ (ICCES’05)*”, S.M. Sivakumar, A. Meher Prasad, B. Dattarugu, S. Narayanan, A.M. Rajendran & S. N. Atluri (Editors), 1-6 Dec. 2005, Chennai, India, pp. 2094-2099, Tech Science Press, 2005.
 23. M.E. Stavroulaki, ‘Dynamic analysis of a stone bridge including contact and friction effects’, *International Conference on Nonsmooth / Nonconvex Mechanics with Applications in Engineering (NNMAE2006)*, Thessaloniki, Greece, July, 2006.
 24. Maria E. Stavroulaki, Vagelis B.Liarakos ‘Parametric dynamic analysis of a masonry wall with lintels of reinforced concrete over the openings’, *ECCOMAS Thematic Conference on Computational Methods in Structural Dynamic and Earthquake Engineering*, Rethymno, Crete, Greece, June, 2007.
 25. V. Liarakos, Y. Tsompanakis, C.P. Providakis and M.E. Stavroulaki, ‘Dynamic interaction of tunnels and surface structures’, *ECCOMAS Thematic Conference on Computational Methods in Structural Dynamic and Earthquake Engineering*, Rethymno, Crete, Greece, June, 2007.
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 27. M. E. Stavroulaki, Ch. K. Amanatidou, ‘Seismic behavior of an unreinforced masonry building with various floor systems’, *Proceedings of the Ninth International Conference on Computational Structures Technology*, Athens, Greece, September, 2008.
 28. M.E. Stavroulaki, K. Pateraki, ‘Dynamic response of masonry walls in connection with reinforced concrete frame’, 5th Contact Mechanics International Symposium, Chania, Crete, Greece, 28-30 April 2009. Δημοσίευση στο βιβλίο, ‘Recent Advances in Contact Mechanics’, Lecture Notes in Applied and Computational Mechanics 56, Ed. G.E. Stavroulakis, Springer, pp. 257-273, 2013.
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 30. Μαρία Ε. Σταυρουλάκη, ‘Σεισμική συμπεριφορά ιστορικών κατασκευών με σύνθετο δομικό φορέα’, 2^ο Πανελλήνιο Συνέδριο Αναστηλώσεων της ΕΤΕΠΙΑΜ

(Εταιρεία Έρευνας και Προώθησης της Επιστημονικής Αναστήλωσης Μνημείων), 21-24 Μαΐου 2009.

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32. G.A. Drosopoulos, G.E. Stavroulakis, M.E. Stavroulaki, “Unilateral modelling and related identification in masonry structures”, *International Conference on Computational Contact Mechanics, ICCCM 2011*, Hannover, Germany (παρουσίαση και τεύχος περιλήψεων)
33. Maria E. Stavroulaki and Theodoros Tsinarakis, “Finite element analysis of masonry barrel vaults”, *7th GRACM International Congress on Computational Mechanics*, Athens, 30 June – 2 July 2011
34. M.E. Stavroulaki, G.A. Drosopoulos and G.E. Stavroulakis, “Unilateral Analysis and Damage Identification in Masonry Structures”, *Proceedings of the Thirteenth International Conference on Civil, Structural and Environmental Engineering Computing*, B.H.V. Topping and Y. Tsompanakis, (Editors), Civil-Comp Press, Stirlingshire, Scotland, paper 1, 2011.
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36. P. Maravelaki, Z. Agioutantis, E. Lionakis, C. Kapridaki, S. Mayrigiannakis, M. Stavroulaki, V. Perdikatsis, A. Verganelaki, N. Kallithrakas-Kontos, “Physico-chemical and mechanical characterization of hydraulic mortars containing nanotitania for restoration applications”, *Abstract for NICOM4: 4th International Symposium on Nanotechnology in Construction*, Crete, Greece, May 2012
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38. Maria Stavroulaki, Dimitrios Sotiropoulos, “Maximum ultrasonic reflection from chaotic defects”, abstract for ICCES’12: *International Conference on Computational & Experimental Engineering and Sciences*, Crete, Greece, April 30 – May 4, 2012.
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structures', 2013 *IEEE Sensors Applications Symposium (SAS)*, 19-21 February, USA 2013.

41. G. A. Drosopoulos, M.E. Stavroulaki, G.E. Stavroulakis, 'Homogenization and elastic analysis of masonry walls', *10th HSTAM International Congress on Mechanics*, Chania, Crete, Greece, 25 – 27 May, 2013.
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43. Georgios E. Stavroulakis, Konstadinos Giannis, Georgios A. Drosopoulos, Maria E. Stavroulaki, 'Non-linear Computational Homogenization Experiments', *Proceedings of the 2013 COMSOL Conference in Rotterdam*, October 2013.
44. Stavroulaki M.E., Riveiro B., Drosopoulos G.A., Arias P., Stavroulakis G.E. (2014), "Integrated Modeling and Evaluation of Masonry Bridges using Terrestrial Photogrammetry", *Proceedings of the Twelfth International Conference on Computational Structures Technology*, B.H.V. Topping and P. Iványi, (Editors), Civil-Comp Press, Stirlingshire, Scotland
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51. Riveiro B., Conde B., Drosopoulos G.A., Stavroulakis G.E., Stavroulaki M.E. (2016), "Fully Automatic Approach for the Diagnosis of Masonry Arches from Laser Scanning Data and Inverse Finite Element Analysis", *10th International Conference on Structural Analysis of Historical Constructions (SAHC)*, Leuven, Belgium
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Teaching experience:

Undergraduate courses at the Technical University of Crete (Structural Engineering I, Building Technology: Light, Steel and Timber Structures).

Postgraduate Courses at the Technical University of Crete (Structural damage and methods of intervention in historic constructions, Computational mechanics, and heritage structures).

- Supervisor of more than 29 master's theses, Supervisor of one (1) doctoral thesis.
- Member of the Scientific Committee and the organizing committee of conferences.
- Participation in the 'Scientific Committee on the Crete fortifications' (2004-2015).
- Member of the 'Greek Association of Computational Mechanics "(GRACM) and the' Society for the Promotion of Research and Scientific Restoration of Monuments' (ETEPAM).

Research Interests

- Structural Engineering (Computational Mechanics for Heritage Structures, Structural Analysis and Design, Structural Dynamics, Earthquake Engineering, Restoration of Ancient Monuments, Restoration and Strengthening of Structures, Structural Stability).
- Numerical Methods (Finite Elements, Great experience with both teaching and industrial activities).
- Applied Mechanics (Continuum Mechanics, Mechanics of Materials).