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| *UNIVERSITY OF WEST ATTICA* ***SCHOOL OF ENGINEERING, DEPARTMENT OF CIVIL ENGINEERING*** |

Curriculum Vitae

# Personal

Name: Nikos Pnevmatikos

Place of birth: Trikala, Greece

Date of birth: 03.08.1974

Family situation: Married, two children

Address : 11-13 Agias Lauras, GR-15773,

Athens, Greece

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# Education

***October 2007***

Ph.D, National Technical University of Athens, Greece Metal Stuctures Laboratory, ‘Structural control design of steel structures’. Supervisor Assoc. Prof. Charis J. Gantes

***1999-2001***

Master of Science in Structural Engineering, National Technical University of Athens, Greece

***1993-1999***

Diploma of Civil Engineering, National Technical University of Athens, Greece

***1992***

Aegean University, Department of the Environment

***1986-1991***

1st Gymnasium, Trikala, Greece

# Professional activities

## January 2013- until now

Associate Professor at University of West Attica, Department of Civil Engineering, Teaching courses: Earthquake engineering, concrete structures, steel structures, design of bridges.

## August 2004 - January 2013

Greek Ministry of Infrastructures, Transportation and Networks. Department of Earthquake Victims and Retrofitting Services. Inspection of projects for retrofitting and strengthening of constructions damaged by natural hazard phenomena (earthquakes, floods, fires, landslides).

**January 2005 - until now**

Consulting Engineer at Fanta Real S.A., on precast, prestressed, composite structures, and computer-aided structural design of steel, reinforced concrete and masonry structures.

**January 2007 - until now**

Consulting Engineer at Element company, retrofitting of structures, and computer-aided structural design of steel, reinforced concrete and masonry structures.

# Teaching experience

* Metal structures laboratory courses of the School of Civil Engineering, NTUA, Teaching assistance from 1/9/2004 until 30/6/2005.
* Metal structures laboratory courses of the School of Civil Engineering, NTUA, Teaching assistance from 4/1/2006 until 22/10/2006.
* General Secretariat for Civil Protection, Instructor at a seminar on Indonesian Engineers.Title of Education: post-earthquake building inspection, damage assessment and restoration of buildings. " December 2006.
* Part time Lecturer, Department of Civil Engineering at California State University (Fresno). Teaching two classes: I) Static and II) Laboratory of Concrete. December 2007-July 2008.
* Assistant Professor at Technological Educational Institution of Athens, School of Engineering, Department of Infrastructure. Teaching the course "Earthquake Engineering" Acad. Year 2008-2014.
* Associated Teaching Personnel, the Hellenic Open University on post graduate program: Seismic Mechanics and Earthquake Resistant Construction. Independent supervision of post graduate thesis. Supervised seventeen (17) post graduate thesis during the academic years 2010-2014.
* Associated Teaching Personnel, the Hellenic Open University on post graduate program: Engineering project management. Independent teaching course: construction project analysis and design. Academic years 2014-umntil now.
* Associated Teaching Personnel, the Hellenic Open University on post graduate program: Engineering project management. Independent supervision of post graduate thesis. Supervised twenty (20) post graduate thesis during the academic years 2014-until now.
* Teaching in Piraeus University of applied science, on post graduate program: Seismic and Energy Retrofit of Structures and Sustainable Development. Independent teaching courses: Evaluation of earthquake losses and retrofitted construction management Academic years 2014- until now.

# Supervision of graduate students and postdoctoral fellows

Postdoctoral research with Dr George Papavasiliou in the area of Optimum design with cable for strengthening steel and composite structure to prevent them for earthquake and progressive collapse. Grinded from State Scholarships Foundation (IKY). 2016-2017

Supervisor of doctoral research with Kyriakos Makris in the area of analysis and design of structures with steel section of normal flange and thin walled sinusoidal web. 2020-now

Participation in three-member doctoral committee for three doctoral theses in Hellenic Open University in the school of Science and Technology, 2019-now

Supervision of 43 master thesis in in Hellenic Open University in the school of Science and Technology. 2010-Now

Supervision of 10 master thesis in in University of West Attica, School of Engineering, Department of Civil Engineering master program ‘structural design’ 2010-Now.

# Academic activities

## *Summer 1999*

Participated in an exchange program at the National University of Seoul, South Korea measuring the deformation of bridges by strain gauges.

## *March 2000*

Attended a seminar titled «Seismic technology and praxis – Applications in retrofitting of building damaged by earthquake», Earthquake Engineering Laboratory, National Technical University of Athens, Greece.

## *October 2002*

Attended a course in *“Active structural control”* at the Libre University of Brussels, Belgium, organized by Professor Andre Preumont.

## *October 2004*

Attended a course at the National Center of Public Administration, Education Institute, Athens, Greece, titled « Seismic evaluation of caring capacity of buildings».

## *October 2005*

Attended a course at the International Centre for Mechanical Sciences, (CISM Centre International des Sciences Mécaniques), Udine, Italy, titled *“Dynamic methods for damage detection in structures”*, coordinated by A. Morassi, University of Udine, Italy, 10-14 October 2005

## *September 2006*

Attended a training workshop “Research at the UB-NEES Versatile large scale hybrid testing laboratory: A user perspective” at the University of Buffalo, SEESL (Structural Engineering and Earthquake Simulation Laboratory), coordinated by Dr. A.M. Reinhorn, Dr. A. Filiatrault, Dr. G. Mosqueda, M. Pitman, J. Hanley, T. Albrechcinski, S. Weinreber, Buffalo, 18-19 September 2006.

## *December 2006*

Trainer at an Indonesian engineers seminar of the Greek General Secretariat of Civil Protection. Title of teaching subject “Post earthquake construction inspection practices: Evaluation of damage and compensation.”

## *December 2007-July 2008*

Part time Lecturer at California State University, Fresno, Department of Civil and Geomatics Engineering.

Teaching classes: I ) Statics - II) Concrete Lab.

## *September 2008-Today*

Research collaborator at Athens Institute of Technology, Department of Civil Works. Teaching classes: Earthquake Engineering

## *March 2009*

Invited Presentation at Technical University of Crete in the Department of Production Engineering and Management «Structural control for earthquake mitigation», 24 March 2009, Chania, Crete

## *April 2009*

Attended a training workshop « Advanced courses on Structural Health Monitoring» University of Patras, Conference Center, coordinated by Dr. S. Fassoi, 6 - 9 April 2009. Patras, GREECE

## *September 20011*

Attended a seminar titled «Earthquake Resistance of Precast Structures» fib Commission 6, Hellenic Concrete Section of the Technical Chamber of Greece, 29-30 September 2011 – TITANIA hotel (52, Panepistimiou str.), Athens.

## October *2011*

Attended a workshop «Mapping Seismic Vulnerability and Risk of Cities» European research program MASSIVE , Athens 4 October 2011.

## September *2012*

Attended a workshop “Lisbon in Motion, LiMo, Disaster Risk Reduction of the city of Lisbon”

Lisboan, 20 – 23 September 2012.

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| **Grant applications** | | | |
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| **Project Title** | **Funding source** | **Submission date** | **Role of the PI** |
| **OPTIΜETRICS**  *“T****op****ologies and in****t****errogat****i****on syste****m****s, of optical s****e****nsors for s****tr****uctural health monitor****i****ng, technically and* ***c****o****s****t effective”* | «ΕΡΕΥΝΩ – ΔΗΜΙΟΥΡΓΩ – ΚΑΙΝΟΤΟΜΩ» Επιχειρησιακό Πρόγραμμα «ΑΝΤΑΓΩΝΙΣΤΙΚΟΤΗΤΑ, ΕΠΙΧΕΙΡΗΜΑΤΙΚΟΤΗΤΑ & ΚΑΙΝΟΤΟΜΙΑ» (ΕΠΑνΕΚ), 2014-2020, | 5-2019 | Member of the research team. Responsible of the analysis of structures and identify the locations of fiber optic placement, experiments of fiber optic sensor in concrete beam. |
| **LSFES : Light Steel Framing on Existing Structures**  Modelling of the stiffening effects of boards on cold-formed steel wall panels in bending. Application for cold formed steel extensions on existing buildings. | **HELLENIC FOUNDATION FOR RESEARCH AND INNOVATION**  **2nd Call for H.F.R.I. Research Projects to Support Faculty Members & Researchers** | 2020 | P.I. as a faculty member. |
| Structural Design of structures for protection against Blast-Induced Progressive Collapse | **1st Call**  **for H.F.R.I. Research Projects to**  **Support Faculty Members & Researchers** | 2018 | P.I. as a faculty member. |
| **«EΠΙΤΗΡΗΣΗ ΚΑΤΑΣΚΕΥΩΝ ΕΥΡΕΙΑΣ ΚΛΙΜΑΚΑΣ ΜΕΣΩ ΔΙΚΤΥΟΥ ΑΙΣΘΗΤΗΡΩΝ ΟΠΤΙΚΩΝ ΙΝΩΝ ΚΑΙ**  **ΕΚΤΙΜΗΣΗ ΚΙΝΔΥΝΟΥ»**  *ΠΕΠ-ΠΑΔΑ-2020*  *Use Case εργαστηρίων ΠαΔΑ: WaveComm, ECTLab, PDSN, ΕΚΠΜ*  **Συνεργαζόμενα Εργαστήρια:**  **1)** Τμ. Ηλεκτρολόγων και Ηλεκτρονικών Μηχανικών – Εργαστήριο Ασύρματων – Οπτικών Διατάξεων και Δικτύων Επικοινωνιών (WaveComm) http://wavecomm.eee.uniwa.gr  **2)** Τμ. Ηλεκτρολόγων και Ηλεκτρονικών Μηχανικών – Εργαστήριο Τεχνολογιών Ηλεκτρονικής και Υπολογιστών (ECTLab)  http://ectlab.eee.uniwa.gr  **3)** Τμ. Μηχανικών Πληροφορικής και Υπολογιστών – Εργαστήριο Παράλληλων και Κατανεμημένων Συστημάτων και Δικτύων (PDSN) http://pdsn.uniwa.gr  **4)** Τμ. Πολιτικών Μηχανικών – Εργαστήριο Κατασκευών Πολιτικού Μηχανικού | *Περιφερικό Επιχειρησιακό Πρόγραμμα*  *Πανεπιστήμιο Δυτικής Αττικής ΠΕΠ-ΠΑΔΑ-2020* | 3- 2020 | Member of the research team. Responsible of the analysis of structures and identify the locations of fiber optic placement, experiments of fiber optic sensor in concrete beam. |

# Publications

* **Journal papers**

1. Gantes, C.J., and Pnevmatikos, N.G., “Elastic-Plastic Response Spectra for Exponential Blast Loading”, *International Journal of Impact Engineering*, Vol. 30, No. 3, p.p. 323-342, 2004.
2. Pnevmatikos, N.G., Kallivokas, L.F. and Gantes, C.J., “Feed-Forward Control of Active Variable Stiffness Systems for Mitigating Seismic Hazard in Structures”, *Engineering Structures*, Vol. 26, No. 4, p.p. 471-483, 2004.
3. Pnevmatikos, L.F. and Gantes, C.J., “Pole selection for structural control using the complex Fourier characteristics of the incoming earthquake”, *Journal of* Structural Control and Health Monitoring*,* 14, pp. 428-447, 2007.
4. Nikos G. Pnevmatikos, Charis J. Gantes, “Sliding mode control for structures based on the frequency content of the earthquake loading”, Smart structures and systems, Volume 5, Number 3 pp.209-221, May 2009.
5. Nikos G. Pnevmatikos, Charis J. Gantes, “Design and control algorithm for structures equipped with active variable stiffness devices”, Journal of Structural Control and Health Monitoring, Volume 17, Issue 6, Pages: 591–613, October 2010.
6. Gianis Mantzaris, Nikos Pnevmatikos, Gewrgia Tsiboukaki, Alekos Mantzaris, “Standard bridge beams with spans up to 100m for road, rail and walkway bridges”, *Concrete Plant International journal, CPI*, Volume 1, January 2010.
7. Nikos G. Pnevmatikos, Charis J. Gantes, “Control strategy for mitigating the response of structures subjected to earthquake actions”, Engineering Structures, 2010, Vol. 32 pp. 3616–3628.
8. Nikos G. Pnevmatikos, Charis J. Gantes, “The influence of time delay and saturation capacity in control of structures under seismic excitations” Smart Structures and systems, An International Journal, Vol. 8, No. 5, pp 479-490, 2011.
9. Nikos G. Pnevmatikos, “New strategy for preventing structures against earthquakes”. Natural Science, Vol.4, pp. 667-676, 2012, doi:10.4236/ns.2012.428088.
10. Nikolaos Pnevmatikos, Vassilis Sentzas “Preliminary estimation of response of curved bridges subjected to earthquake loading.” Journal of Civil Engineering and Architecture, , Volume 6, No. 11 (Serial No. 60), pp. 1530–1535, 2012, ISSN 1934-7359, USA.
11. Nikos G. Pnevmatikos, George C. Thomos “Stochastic structural control under earthquake excitations” 2014, Journal of Structural Control and Health Monitoring,Vol.21, No 4, 620-633.
12. Nikos G. Pnevmatikos, George D. Hatzigeorgiou, “Response control for irregular buildings under earthquake action” Earthquake and Structures, Vol.6, No.6, pp. 647-664, 2014.
13. George D. Hatzigeorgiou, Nikos G. Pnevmatikos, 2014, “Maximum damping forces for structures with viscous dampers under near-source earthquakes” Engineering Structures , 68, 1, pp.1-13.
14. Nikos G. Pnevmatikos, George D. Hatzigeorgiou, 2014, “Seismic Design of Steel Frames Equipped by Control Devices”, Open Construction and Building Technology Journal 8 (1), 300-309
15. Hatzigeorgiou G.D., Pnevmatikos N.G. (2014), On the Seismic Response of Collided Structures, International Journal of Civil, Architectural, Structural and Construction Engineering 8(7), 750-754.
16. Nikos G. Pnevmatikos , Bartlomiej Blachowski , George D. Hatzigeorgiou and Andrzej Swiercz. (2016), «Wavelet analysis based damage localization in steel frames with bolted connections», Smart Structures and System, Vol. 18, No. 6, pp.1189-1202
17. Pnevmatikos, N.G. & Hatzigeorgiou, G.D. (2016), “Damage detection of frame structures subjected to earthquake excitation using discrete wavelet analysis”, Bulletin of Earthquake Engineering, 15(1), 227-248, DOI 10.1007/s10518-016-9962-z.
18. Nikos G. Pnevmatikos, (2016), “Modified response spectrum analysis for controlled structures subjected to earthquake excitation”, EPH - International Journal of Science And Engineering, 2(12), 14-21, ISSN : 2454 - 2016.
19. Nikos G. Pnevmatikos, (2017), “Pole placement algorithm for control of civil structures subjected to earthquake excitation”, Journal of Applied and computational mechanics, (in press, Available Online from 17 January 2017.
20. Nikos G. Pnevmatikos, George A. Papagiannopoulos, George Hatzigeorgiou, (2017), ‘Earthquake design of controlled structures’ Fracture and Structural Integrity (Frattura ed Integrità Strutturale), 40 (2017) 129-136; DOI: 10.3221/IGF-ESIS.40.11.
21. Georgios S. Papavasileiou, Nikolaos G. Pnevmatikos, (2017), “ The Cost of Retrofitting Steel-Concrete Composite Buildings Against Progressive Collapse With Steel Cables”, International Journal of Progressive Sciences and Technologies (IJPSAT), Vol. 6, No. 1, pp. 103-115.
22. Papavasileiou, G.S. & Pnevmatikos, N.G. (2017). Optimized design of steel buildings against earthquake and progressive collapse using cables. International Journal of Progressive Sciences and Technologies, 6(1), 213-220.
23. Blachowski, Bartlomiej Dominik; Pnevmatikos, Nikos. Neural Network Based Vibration Control of Seismically Excited Civil Structures. Periodica Polytechnica Civil Engineering, [S.l.], 2017. ISSN 1587-3773.
24. C. B. Demakos, A. Kyriazopoulos, N. Pnevmatikos and D. Drivas. (2018) ‘Experimental investigation and numerical simulation of curved frame structures’, Procedia Structural Integrity, 10, 148–154.
25. N.G. Pnevmatikos, G.A. Papagiannopoulos, G. Hatzigeorgiou. (2018), ‘ Fatigue assessment of a steel frame subjected to a number of earthquake excitations’, Procedia Structural Integrity, 10, 195–202.
26. Nikos G. Pnevmatikos, George A. Papagiannopoulos and Georgios S. Papavasileiou, (2019), “Fragility curves for mixed concrete/steel frames subjected to seismic excitation”, Earthquake engineering and SoiL Dynamics, Elsevier Journal, 116, 709-713, <https://doi.org/10.1016/j.soildyn.2018.09.037>.
27. Leousis Dhmhtrios Pnevmatikos, Nikos, (2018) “Earthquake losses assessment in the municipality of Kifissia (Athens – Greece) using the Earthquake Loss Estimation Routine (ELER)”, International Journal of Earthquake Engineering and Hazard Mitigation (IREHM), Vol 6, No 1, pp11-20.
28. Nikos G. Pnevmatikos, Georgios S. Papavasileiou, Fotini D. Konstandakopoulou and George Papagiannopoulos, 2019, ‘Influence of Rotational Component of Earthquake Excitation to the Response of Steel Slender Frame’ Materials Science Forum–Scientific.net, ISSN: 1662-9752, Vol. 968, pp 294-300, doi.org/10.4028/www.scientific.net/MSF.968.294.
29. Foivos Bardopoulos, George Papagiannopoulos, Nikos Pnevmatikos, 2019, Design considerations for photovoltaic panel arrays made from aluminium: a case study, Steel Construction 12 (2019) DOI: 10.1002/stco.201800028
30. F. D. Konstandakopoulou, G. A. Papagiannopoulos, N. G. Pnevmatikos, G. D. Hatzigeorgiou, 2019, Seismic Hazard Assessment of Offshore Platforms, International Journal of Civil and Environmental Engineering, Vol:13, No:5.
31. Nikos Pnevmatikos, Foteini Konstandakopoulou, George Papagiannopoulos, George Hatzigeorgiou and Georgios Papavasileiou, Influence of Earthquake Rotational Components on the Seismic Safety of Steel Structures , Vibration, 2020, 3, 42–50.
32. Panagiota Katsimpini, Foteini Konstandakopoulou, George Papagiannopoulos,Nikos Pnevmatikos and George Hatzigeorgiou, Seismic Performance of Steel Structure-Foundation Systems Designed According to Eurocode 8 Provisions: The Case of Near-Fault Seismic Motions, Buildings 2020, 10, 63; doi:10.3390/buildings10040063

* **Journal papers Submitted for publication**

1. .

* **Conference papers**

1. Pnevmatikos, N.G. and Gantes, C.J., “Elastoplastic Response Spectra for the Design of Structures Subjected to Exponential Blast Loading”, *6th Greek National Congress on Mechanics*, Thessaloniki, Greece, July 19-21, 2001.
2. Pnevmatikos, N.G. and Gantes, C.J., “The Effect of Frequency Content of Earthquakes in the Control of MDOF Structural Systems”, *4th Greek Association on Computational Mechanics (GRACM) Congress*, Patra, Greece, June 27-29, 2002.
3. Nikos G. Pnevmatikos “Pole placement algorithm based on frequency content of the earthquake signal”, *4th International workshop on structural control (4IWSC),* 10-11 June, Columbia University, New York, 2004.
4. Nikos G. Pnevmatikos, and Gantes, C.J., “Accounting for frequency content of earthquake in the control of structures”, *5th International PhD symposium in civil engineering* 16-19 June, Delft, The Netherlands, 2004, Proceedings vol. II pp. 1451-1460.
5. Pnevmatikos, N.G. and Gantes, C.J., “Application of pole placement algorithm for structural control against seismic loading”, *7th Greek National Congress on Mechanics*, Chania, Greece, June 24-26, 2004, Proceedings vol. II pp. 223-229.
6. Pnevmatikos, N.G., Loukas Kalivokas and Gantes, C.J., “Control algorithms for mitigating seismic hazard in structures accounting for the incoming earthquake’s frequency content”, *International symposium on network and centre–based research for smart structures technologies and earthquake engineering (SE04)*, July 6-9, Osaka, Japan 2004.
7. Pnevmatikos, N.G., Gantes, C.J., “Sliding mode control for civil structures based on complex Fourier coefficients of the earthquake”. *Third MIT Conference on Computational Fluid and Solid Mechanics*, June 14-17, Boston, USA 2005. Proceedings, pp.1166-1170.
8. Pnevmatikos, N.G., Gantes, C.J., “Design procedure for structures equipped with a control system and subjected to earthquake loading”. *5th GRACM International Congress on Computational Mechanics*, Limassol, Cyprus, 29 June – 1 July, 2005. Proceedings, Vol 1, pp.265-272.
9. Gantes, C, Κ. Loukakis, Μ. Villi, J. Psaras, Ν. Pnevmatikos, G. Baxounzouzi, “Presentation of the static system of the protection cover of the archaeological site of Aristotle’s Lyceum on Rigillis Street in Athens”, *5th National conference of steel structures*, Xanthi, 29 September -1 October 2005. Proceedings, Vol. II pp 37-43.
10. Gantes, C,, G. Bukovalas, G. Kourenzis, Μ. Lemonis, N. Pnevmatikos, “ Seismic analysis of the natural gas pipeline Kipi – Aleksandroupoli – Komotini at active fault crossings ”, *5th National conference of steel structures*, Xanthi, 29 September -1 October 2005. Proceedings, Vol. II pp 85-92.
11. J. Mantzaris, G. Panagiotou, N. Pnevmatikos, “Bridges with composite static system. Arch of Odysseus”, *5th National conference of steel structures*, Xanthi, 29 September -1 October 2005. Proceedings, Vol. II pp 216-224.
12. Pnevmatikos, N.G., Gantes, C.J., “On line selection of poles of controlled structure based on frequency content of applied dynamic loading”. *Fourth World Conference on Structural Control and Monitoring (4WCSCM)*, 11-13 July 2006 San Diego, California, U.S.A. CD Proceedings, paper #22.
13. N.G. Pnevmatikos, C.J Gantes, “ Strategy for On-Line Control of Structures Against Earthquakes ”. *ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering,* M. Papadrakakis, D.C. Charmpis, N.D. Lagaros, Y. Tsompanakis (eds.), Rethymno, Crete, Greece, 13–16 June, 2007, CD ROM Proceedings, paper #1389.
14. N.G. Pnevmatikos, C.J. Gantes, “Dynamic Control Analysis (DCA)’’ *8th HSTAM International Congress on Mechanics,* N. Bazeos, D. L. Karabalis, D. Polyzos, D. E. Beskos, J. T. Katsikadelis, Patras, Greece, 12–14 July, 2007, Proceedings, vol. II, pp 803-810.
15. Pnevmatikos, N.G., Gantes, C.J. Thomas Attard, “Integratedcontrol strategy for structures subjected to dynamic loading*”,* *Tenth Pan American Congress of Applied Mechanics PACAM X*, Editor Thomas Attard, January 7– 11, 2008 Grand Oasis Resort Cancun, Mexico, Proceedings, pp 170-173.
16. Nikos G. Pnevmatikos, Charis J. Gantes, Thomas Attard, “Control algorithm for civil structures subjected to earthquake loading”, 29th Central California Research Symposium, California State University, Fresno April 16, 2008.
17. Thomas L. Attard, Nikos G. Pnevmatikos, Michael D. Wesson, Maria C. San-chez, and Chase Wharton “Experimental shaking table tests of a steel structure using a prototype mr damper” 4th European Conference on Structural Control, St. Petersburg, Russia, September 8-12, 2008.
18. J Manjaris, N. Pnevmatikos, “Parametric cost analysis of composite, precast, prestressed beam, named “arculys” used for the construction of industrial building”6th National conference of Steel structures, Ioannina, 2-4 October 2008.
19. N.G. Pnevmatikos, C.J Gantes, “Time delay and saturation capacity interaction in the control of structures under seismic actions”. ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering, M. Papadrakakis, N.D. Lagaros, Y. M. Fragiadakis (eds.), Rhodes, Greece, 22–24 June 2009, CD ROM Proceedings, paper #168.
20. Gianis Mantzaris, Nikos Pnevmatikos, Persefoni Voutsina, “Experimental and numerical investigation of new type of Preslabs”, Technical Chamber of Greece T.C.G, 16ο Concrete conference, Pafos Cyprous, 21-23 Octomber 2009. CD ROM Proceedings, paper #151043.
21. Gianis Mantzaris, Nikos Pnevmatikos, Persefoni Voutsina, Chris Machairas, Kostas Kostavasilis, “New method of arched bridge construction using the structural system “Arc of Ulysses”, Technical Chamber of Greece T.C.G, 16ο Concrete conference, Pafos Cyprous, 21-23 Octomber 2009. CD ROM Proceedings, paper #151042.
22. Nikos Pnevmatikos, Gianis Mantzaris, “ ‘Arculys’ Precast, prestresed, composite beams for bridge systems” International Concrete Conference & Exhibition, ICCX 2009 December 8-10, 2009, Park inn Pulkovskaya, St. Petersburg, Russia.
23. Pnevmatikos, Nikos “Damage detection of structures using discrete wavelet transform”. *Fifth World Conference on Structural Control and Monitoring (5WCSCM)*, 12-14 July 2010 Tokyo , Japan, CD Proceedings, paper #35.
24. Vassilis Sentzas , Nikolaos Pnevmatikos, “The influence of curvature to the response of curved bridges subjected to earthquake loading” International conference IBSBI 2011, Innovations on Bridges and Soil Bridge Interaction, October 13-15, 2011, Athens, Greece.
25. Nikos G. Pnevmatikos “Damage detection of frame structures subjected to earthquake loading”. COMPDYN 2011, 3rd ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering M. Papadrakakis, M. Fragiadakis, V. Plevris (eds.) Corfu, Greece, 25–28 May 2011.
26. Nikos G. Pnevmatikos “Structural control for asymmetric buildings subjected to earthquake excitations”, Fifteenth World Conference on Earthquake Engineering, 15th WCEE, Lisboa, 2012.
27. Yannis Mantzaris, Nikos Pnevmatikos, Alexandros Mantzaris, “The Arc of Ulysses-Precast, prestressed composite beams for bridge construction. Standard bridge beams with free spans up to 100m for road rail and walkway bridges”, 1st Albanian congress on roads, 27-28 September 2012, Tirana, Albania.
28. Pnevmatikos, Nikos, Hatzigeorgiou George “Response spectrum analysis for controlled structures”. *Sixth World Conference on Structural Control and Monitoring (6WCSCM)*, 15-17 July 2014, Barcelona, Spain, Conferences Proceedings, pp. 1598-1606, ISBN 978-84-942844-5-8.
29. Pnevmatikos Nikos, Giotsas Dimitrios, “Variation of center of stiffness during yielding of steel structure”8th National conference of Steel structures, **Tripoli**, 2-4 October 2014.
30. Hatzigeorgiou George, Pnevmatikos, Nikos, “On the Seismic Response of Collided Structures”. International Conference on Computational Mechanics (ICCM 2014), 10-11 July 2014, Prague , Czech Republic .
31. Bartlomiej Blachowski, Andrzej Swiercz, and Nikos Pnevmatikos, ‘Experimental verification of damage location techniques for frame structures assembled using bolted connections’ COMPDYN 2015, 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering M. Papadrakakis, V. Papadopoulos, V. Plevris (eds.) Crete, Greece, 25–27 May 2015
32. Nikos G. Pnevmatikos, George Hatzigeorgiou, “Earthquake design for controlled structures” International Conference ‘*Science in Technology’* SCinTE , 5-7 November 2015, Athens Greece.
33. Nikos G. Pnevmatikos, George A. Papagiannopoulos , George Hatzigeorgiou, ‘Control of structures based on non resonance with earthquake excitation’ 6th European Conference on Structural Control, Sheffield, England, 11-13 July 2016
34. G. D. Hatzigeorgiou, G. A. Papagiannopoulos, N. G. Pnevmatikos, «Influence of soil-structure interaction on dynamic inelastic response of planar steel frames», Poster at conference: Global Conference on Applied Computing in Science and Engineering, Rome, 27-29/07/2016, DOI: 10.13140/RG.2.1.5138.2008
35. G. A. Papagiannopoulos, N. G. Pnevmatikos, G. D. Hatzigeorgiou, « Controlled design of linear non-classically damped systems using amplitudes of frequency response functions and modal damping ratios », Poster at conference: Global Conference on Applied Computing in Science and Engineering, Rome, 27-29/07/2016, DOI: 10.13140/RG.2.1.3139.3521.
36. Leousis Dhmitiros, Nikos Pnevmatikos, «Estimation of seismic losses in municipality of Kifisia-Athens with use of ELER software», National conference of concrete structures, Thessaloniki, 10-12/11/2016.
37. Μάντζαρης Αλέξανδρος, Μάντζαρης Γιάννης, Νίκος Πνευματικός, Γεωργία Τσιμπουκάκη, «Η εφαρμογή του συστήματος «Τόξο του Οδυσσέα» στην κατασκευή της γέφυρας Καναλάκι», Πανελλήνιο Συνέδριο Σκυροδέματος, Ελληνική Επιστημονική Εταιρεία Ερευνών Σκυροδέματος, (ΕΠΕΣ), Τεχνικό Επιμελητήριο Ελλάδας, Τμήμα Κεντρικής Μακεδονίας, (ΤΕΕ/ΤΚΜ), Θεσσαλονίκη, 10-12/11/2016.
38. Μάντζαρης Γιάννης, Μάντζαρης Αλέξανδρος, Νίκος Πνευματικός, Γεωργία Τσιμπουκάκη, «Τυποποίηση γεφυρών τύπου «Τόξο του Οδυσσέα» για μεταφορά με container.», Πανελλήνιο Συνέδριο Σκυροδέματος, Ελληνική Επιστημονική Εταιρεία Ερευνών Σκυροδέματος, (ΕΠΕΣ), Τεχνικό Επιμελητήριο Ελλάδας, Τμήμα Κεντρικής Μακεδονίας, (ΤΕΕ/ΤΚΜ), Θεσσαλονίκη, 10-12/11/2016.
39. Μάντζαρης Αλέξανδρος, Μάντζαρης Γιάννης, Νίκος Πνευματικός, Γεωργία Τσιμπουκάκη, «Σύστημα ΛΙΚΝΕΙΣΜΟΣ (Λικνισμός + Σεισμός) Προκατασκευασμένες κυψέλες σκυροδέματος συνδεδεμένες με προένταση μέσω εφεδράνων», Πανελλήνιο Συνέδριο Σκυροδέματος, Ελληνική Επιστημονική Εταιρεία Ερευνών Σκυροδέματος, (ΕΠΕΣ), Τεχνικό Επιμελητήριο Ελλάδας, Τμήμα Κεντρικής Μακεδονίας, (ΤΕΕ/ΤΚΜ), Θεσσαλονίκη, 10-12/11/2016.
40. Γεωργία Τσιμπουκάκη, Μάντζαρης Αλέξανδρος, Μάντζαρης Γιάννης, Νίκος Πνευματικός, «Προκατασκευασμένες γεφυροπλάστιγγες σκυροδέματος», Πανελλήνιο Συνέδριο Σκυροδέματος, Ελληνική Επιστημονική Εταιρεία Ερευνών Σκυροδέματος, (ΕΠΕΣ), Τεχνικό Επιμελητήριο Ελλάδας, Τμήμα Κεντρικής Μακεδονίας, (ΤΕΕ/ΤΚΜ), Θεσσαλονίκη, 10-12/11/2016.
41. Nikos Pnevmatikos, Mathaios Didagelos «Retrofit of three story masonry residential building with steel elements», 9th National conferences of steel structures, Larisa, 2017.
42. Gianis Daliakouras, Nikos Pnevmatikos, Fragility curves for industrial steel buildings, 9th National conferences of steel structures, Larisa, 2017..
43. Antonios Flogeras ,George Papagiannopoulos and Nikos G. Pnevmatikos «On the seismic response of steel buckling-restrained braced structures including soil-structure interaction», 9th National conference in Steel Structures, Larisa, 2017.
44. Georgios S. Papavasileiou and Nikolaos G. Pnevmatikos, “Retrofit of steel buildings against progressive collapse using cables”, 2nd International Conference on Recent Advances in Nonlinear Models – Design and Rehabilitation of Structures, CoRASS 2017, H. Barros, C. Ferreira, José M. Adam and Norb Delatte (Eds), Coimbra, 16-17 November 2017.
45. Panagiota S. Katsimpini, George A. Papagiannopoulos, George D. Hatzigeorgiou and Nikos G. Pnevmatikos, “Seismic response of low-rise steel frames equipped with the seesaw system” International Workshop by Young Researchers on “Advanced Materials and Technology for Applications to Steel and Composite Steel/Concrete Structures” Kyoto, Japan December 7, 2017.
46. Giannis Ntaliakouras, Nikos Pnevmatikos, Analysis of reinforcment structure subjected to blast load (in Grek), 18th National conferences on reinforcement concrete structures, Athens, 28-31, March, 2018.
47. Nikos G. Pnevmatikos, George A. Papagiannopoulos, George Hatzigeorgiou, ‘Fatigue assessment of steel frame subjected to number of earthquake excitations’, 1st International Conference of the Greek society of experimental mechanics of materials, Athens, Greece, May 10-12, 2018.
48. C. B. Demakos, A. Kyriazopoulos, N. Pnevmatikos and D. Drivas. ‘Experimental and numerical simulation of curved frame structures’ 1st International Conference of the Greek society of experimental mechanics of materials, Athens, Greece, May 10-12, 2018.
49. Papavasileiou G.S., & Pnevmatikos N.G. (2018). Optimized retrofit of steel-concrete composite buildings against progressive collapse using steel cables. In Proceedings of the [16th European Conference on Earthquake Engineering](http://www.16ecee.org/). Thessaloniki 18-21 June 2018.
50. Giannis Ntaliakouras, Nikos Pnevmatikos, (2018). Seismic fragility curves for industrial buildings. In Proceedings of the [16th European Conference on Earthquake Engineering](http://www.16ecee.org/). Thessaloniki 18-21 June 2018.
51. George A. Papagiannopoulos, George D. Hatzigeorgiou, Nikos G. Pnevmatikos, (2018). A Seismic Retrofit Method for Steel Frames with Viscous Dampers . In Proceedings of the [16th European Conference on Earthquake Engineering](http://www.16ecee.org/). Thessaloniki 18-21 June 2018.
52. Nikos G. Pnevmatikos, Georgios S. Papavasileiou, Fotini D. Konstandakopoulou and George Papagiannopoulos, ‘Influence of Rotational Component of Earthquake Excitation to the Response of Steel Slender Frame’ ‘A*ctual problems οf engineering mechanics’* VΙ international scientific-practical Conference, Odesa, Ukraine May 20–24, 2019.
53. Nikos Pnevmatikos, Bartlomiej Blachowski, and Georgios Papavasileiou, ‘Damage detection of mixed concrete/steel frame subjected to earthquake excitation’ COMPDYN 2019, 7th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering M. Papadrakakis, M. Fragiadakis (eds.) Crete, Greece, 24–26 June 2019
54. Georgios Papavasileiou and Nikos Pnevmatikos, ‘The seismic performance of steel buildings Retrofitted with steel cables against progressive Collapse’ COMPDYN 2019, 7th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering M. Papadrakakis, M. Fragiadakis (eds.) Crete, Greece, 24–26 June 2019
55. Vassilios Moussas, Nikos Pnevmatikos, ‘Sensor placement selection for SHM of buildings’ COMPDYN 2019, 7th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering M. Papadrakakis, M. Fragiadakis (eds.) Crete, Greece, 24–26 June 2019.
56. Νίκος Πνευματικός, Νίκος Κουμούτσος ‘Εκτίμηση σεισμικής τρωτότητας και υπολογισμός απωλειών στην περιοχή της Κεφαλονιάς και Ιθάκης’, 4ο Πανελλήνιο συνέδριο Αντισεισμικής Μηχανικής και Τεχνικής σεισμολογίας, Αθήνα 5-7 Σεπτεμβρίου 2019.
57. Νίκος Πνευματικός, Γεώργιος Παπαβασιλείου, Φωτεινή Κωνσταντακοπούλου και, Γεώργιος Παπαγιανόπουλος, ‘Η επιρροή της περιστροφικής συνιστώσας της σεισμικής διέγερσης στην απόκριση μεταλλικών κατασκευών’, 4ο Πανελλήνιο συνέδριο Αντισεισμικής Μηχανικής και Τεχνικής σεισμολογίας, Αθήνα 5-7 Σεπτεμβρίου 2019.
58. Γεώργιος Παπαβασιλείου, Νίκος Πνευματικός, ‘Εκτίμηση της Επιρροής της Χρήσης Καλωδίων ως Μεθόδου Ενίσχυσης έναντι Προοδευτικής Κατάρρευσης στη Σεισμική Συμπεριφορά Μεταλλικών Κτιρίων’, 4ο Πανελλήνιο συνέδριο Αντισεισμικής Μηχανικής και Τεχνικής σεισμολογίας, Αθήνα 5-7 Σεπτεμβρίου 2019.
59. Φωτεινή Κωνσταντακοπούλου, Γεώργιος Χατζηγεωργίου, Γεώργιος Παπαγιαννόπουλος, Νικόλαος Πνευματικός, ‘Μη-γραμμική ανάλυση συστημάτων μεταφοράς ισχύος υψηλής τάσης υπό τη δράση ισχυρών σεισμών’, 4ο Πανελλήνιο συνέδριο Αντισεισμικής Μηχανικής και Τεχνικής σεισμολογίας, Αθήνα 5-7 Σεπτεμβρίου 2019.
60. Φωτεινή Κωνσταντακοπούλου, Γεώργιος Χατζηγεωργίου, Γεώργιος Παπαγιαννόπουλος, Νικόλαος Πνευματικός, ‘Σεισμική ανάλυση υπεράκτιων πλατφορμών εξόρυξης υδρογονανθράκων που υποβάλλονται σε παλμικού τύπου σεισμούς’, 4ο Πανελλήνιο συνέδριο Αντισεισμικής Μηχανικής και Τεχνικής σεισμολογίας, Αθήνα 5-7 Σεπτεμβρίου 2019.
61. N. Pnevmatikos, B. Blachowski, F. Konstandakopoulou and P. Broukos, Damage detection of structure subjected to earthquake excitation based on multifractal analysis and wavelet leaders, 7th European Conference on Structural Control (EACS 2020), Warsaw, Poland, July 12-15, 2020.
62. Foteini Konstandakopoulou, Nikos Pnevmatikos, George Papagiannopoulos, George Hatzigeorgiou, Safety of Oil/Gas Offshore Platforms Designed According to European Provisions under the Action of Pulse-Like Ground Motions, World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium WMCAUS 2020, 15-19 June, 2020 – Prague (Czech Republic)

**Conference papers Submitted for publication**

## Publications in Greek Journals

1. Alexandros Mantzaris, Gianis Mantzaris, Nikos Pnevmatikos, «Arch of Oulises», Technical review of Greek Society of Civil Engineers, Νο 401 April 2012, pp. 24-36.

# Books

* Nikos Pnevmatikos. (2012). «Introduction in study of earthquake resistant structures», in Greek, ISBN 978-960-6607-58-5, Editor Lixnos

# Book session

* N.G. Pnevmatikos, C.J. Gantes, 2014, “Actively and Semi-Actively Controlled Structures under Seismic Actions: Modeling and Analysis”, Encyclopedia of Earthquake Engineering, edited by Michael Beer, Edoardo Patelli, Ioannis Kougioumtzoglou and Siu-Kui Au. Springer publication.
* S. Boschi, N. Pnevmatikos & E. Raka ‘Seismic Vulnerability assessment of Pombalino Structures’ Chapter of book ‘Lisbon in Motion, Workshop on Risk Assessment, Rehabilitation and Urban Plan’ Editors Alexander A. Costa, Monica A. Ferreira, Alexandra Carvalho, Cristina Oliveira, Isabel Lopes and Rui C. Gomes, 2012.

# Invited presentations

1. Invited presentation at Technical University of Crete, Department Production Engineering and Management «Control systems for structures subjected to earthquake excitation, 24 March 2009, Chania, Crete.
2. Erasmus –LLP European Program Invited lecture in the topic “Structural monitoring and damage detection: Methods and applications in civil structures”, Department of Civil Engineering, Jade University of Applied Sciences, 25-4-2014/ 2-5-2014,
3. Erasmus + European program Invited lecture in the topic “Health monitoring and damage detection and control of civil structures subjected to earthquake loading”, Department of Civil Engineering, Ostrayeriche Technische Hochschule Regensburg, 22-5-2017/ 25-5-2017.
4. Erasmus + International mobility, Invited lecture in the topic “Earthquake engineering” at Odessa State Academy of Civil Engineering and Architecture Odesa, Ukraine, 7-7-2018/ 13-7-2018.
5. Erasmus + International mobility, Invited lecture in the topic “Earthquake engineering damage detection and health monitoring.” at Odessa State Academy of Civil Engineering and Architecture Odesa, Ukraine, 19-5-2019/ 25-5-2019.
6. Erasmus + at Polish Academy of Sciences, Institute of Fundamental Technological Research in the topic “Earthquake engineering damage detection and health monitoring and optimization.”, in Warsaw, Poland 5-11-2019/ 7-11-2019.

# Summer Schools

2018 Presentation in 3rd Summer school ‘’Numerical mechanic and science’ at Hellenic Open University. Unit: Special issues in numerical structural mechanics,

2019 Presentation in Summer school ‘Natural and manmade hazards and civil constructions’ at Hellenic Open University, Unit: Design of technical structures for multiple hazards,

2020 Presentation in Summer school ‘Natural and manmade hazards and civil constructions’ at Hellenic Open University, Unit: Holistic design approach of technical structures to resist natural hazards,

# Conferences session Chairman

* Solid / Structural Mechanics Session. Tenth Pan American Congress of Applied Mechanics, PACAM X, Editor Thomas Attard, January 7– 11, 2008 Grand Oasis Resort Cancun, Mexico.
* Structural Control and Health Monitoring Session. 14th European Conference on Earthquake Engineering (14th ECEE), 30th August – 3rd September, 2010 in Ohrid, Former Yugoslavian Republic of Macedonia (FYROM).
* Mini Symposium, “Special design and analysis of structures”. in 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering COMPDYN 2019 24-26 June 2017, Crete, Greece,

# Awards

* 1993-1995 Undergraduate studies were supported financially by the Greek Scholarship Foundation.
* October 2000. Diploma Thesis on “Analysis and design of structures subjected to blast loads” received an award from the Technical Chamber of Greece
* 2002-2005 Doctoral thesis was supported financially by the Greek Scholarship Foundation.
* June 2005. Young researcher fellowship award for extremely research in computational mechanics. Massachusetts Institute of Technology, MIT, Cambridge, Massachusetts USA.
* October 2005. Scholarship to attended a course titled *“Dynamic methods for damage detection in structures”* at the International Centre for Mechanical Sciences, CISM, Udine, Italy.
* 2005, 2007 Thomaidio Award from the National Technical University of Athens for advances in science and art.
* 2012 First prize winner team at workshop Lisbon in Motion “LiMo” provided by the 15th World Conference in Earthquake Engineering. A workshop about seismic hazard, structural response of existing structures and secondary effects (tsunami, urban impacts, disaster mitigation and action plans). Palácio de Valadares Calçada do Sacramento, 32, Lisbon, September 20-23, 2012.

# Review in Journal and conferences

**Journal**

* Earthquake and structures.
* Engineering Structures. ELSEVIER
* Applied Mathematical Modelling. ELSEVIER
* Structures ELSEVIER
* Soil Dynamics and Earthquake Engineering. ELSEVIER
* Journal of Building Engineering ELSEVIER
* Bulletin of Earthquake Engineering
* Journal of Vibration and Control.
* Earthquake Engineering and Engineering Vibration. Springer
* Frontiers in Built Environment, Frontiers
* Advances in Civil Engineering Hindawi
* Measurement.
* The Open Construction & Building Technology Journal, Bentham OPEN.
* Advances in Civil Engineering, Hindawi Publishing Corporation.
* Advances in Mechanical Engineering, SAGE
* Arabian Journal of Science and Engineering
* Designs MDPI, Infrastructures MDPI, Buildings MDPI, Journal of applied sciences MDPI, Mathematics MDPI, Sensors MDPI, Sustainability MDPI
* Mechanics of Advanced Materials and Structures Taylor and Francis
* Journal of Structural control and Health Monitoring Wiley
* Smart Structures and Systems
* Structural Engineering and Mechanics, An International Journal techno press

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**Conferences**

16th World Conference in Earthquake Engineering, WCEE Santiago, Chile 2017

6th European Conference on Structural Control, Sheffield, England 2016

1st International Conference of the Greek society of experimental mechanics of materials,

# Professional and scientific societies membership

* European Association for the Control of Structures, EACS
* American Society of Civil Engineering, ASCE, Member I. D. #501193
* Technical Chamber of Greece T.C.G.
* Greek Society of Civil Engineers G.S.C.E.
* Greek association of computational mechanics στην Ελληνική Εταιρία Υπολογιστικής Μηχανικής (GRACM)
* Hellenic Society of Earthquake Engineering (HSEE)
* Greek society of concrete (HSC)
* Steel Structures Research Society