

# Petros Komodromos - Curriculum Vitae

Civil & Environmental Engineering Department  
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## EDUCATION

### *Massachusetts Institute of Technology (MIT), Cambridge, MA*

***Ph.D. in Information Technology, Civil and Environmental Engineering Department*** June 2001

Thesis: “*Development and Implementation of a 3-D DEM/FEM Multibody Dynamics Simulation Environment*”

Advisor:  
Prof. J. R.  
Williams  
GPA: 4.9/5.0

***Master of Science in Civil and Environmental Engineering*** June 1995

Thesis: “*Application of Seismic Isolation as a Performance-Based Earthquake-Resistant Design Method*”

Advisor:  
Prof. J. J.  
Connor  
GPA: 5.0/5.0

### *University of California, Berkeley, CA*

***Fellowshipped Graduate Studies in Structural Engineering*** 1995-96

Coursework included earthquake engineering, nonlinear structural analysis and dynamics, finite element methods, reinforced-concrete structures, structural reliability and computer-aided engineering.

GPA: 3.963/4.0

### *University of Patras, Greece*

***Diploma of Civil Engineer (5-year program)*** November 1992

Thesis: “*Computer-Aided Design and Analysis of Reinforced Concrete (R/C) Buildings*”

Advisor:  
Prof. M. N.  
Fardis

1<sup>st</sup> in rank of a graduating class of 136 students

GPA: 8.14/10.0

## ACADEMIC APPOINTMENTS

- **Associate Professor:** October 2015 - Today
- **Assistant Professor:** July 2008 – September 2015
- **Lecturer:** September 2003 - June 2008

Civil & Environmental Engineering Department (CEED), University of Cyprus.

## PROFESSIONAL INDUSTRIAL EXPERIENCE

*Information Technology Associate, Morgan Stanley* 2002-2003

Worked as an Information Technology Associate of the Electronic Sales and Trading (EST) of the equities division, designing, implementing and supporting business software that is used worldwide for equity and portfolio trading.

*Major assignment:* Development, maintaining and high-level supporting of the new release of a major real time trading application (TradeXL), with fast access to global exchanges, that was used worldwide in an average daily trade execution of about 2 billion dollars' worth of equities.

*Information Technology Analyst at Morgan Stanley* 6-12/2001

Intensive (18-week) information technology and business training in distributed and e-business platforms.

Followed by a real project that sought technical solutions to outstanding business needs, which was awarded the first position in the respective competition among all submitted projects in the distributed division of investment banking.

## OTHER INFORMATION

### *Awards*

Certificate of Appreciation, offered, in 2000, by the faculty of the graduate course 1.124J ("Computer-Aided Engineering" and "Foundations of Software Engineering") of the CEE Department at MIT, in recognition of outstanding service as a teaching assistant for five years.

Sigma Xi, The Scientific Research Society, elected as full member in 2002.

I.S. Popert Fellowship and E.F. Henry Scholarship, awarded by the CEE Department, 1995-96, UC Berkeley.

F. M. Schoettler fellowship awarded by the CEE Department, Fall '93 and Fall '94, MIT.

State Scholarships Institution of Greece academic awards for the years 88-89, 89-90, and 90-91 for being 2<sup>nd</sup>, 1<sup>st</sup>, and 1<sup>st</sup>, respectively, in rank of success, among 140 students in the CEE Department, University of Patras, Greece.

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***Scientific and Professional Societies***

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American Society of Civil Engineers (ASCE), USA

Earthquake Engineering Research Institute (EERI), USA

Anti-Seismic Systems International Society (ASSISi)

Sigma Xi, The Scientific Research Society

Scientific and Technical Chamber of Cyprus (ETEK)

Cyprus Association of Civil Engineers

Cyprus Computer Society

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***Computer Experience and Skills***

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***Programming***

Java (AWT/Swing), Java 2D/3D, Servlets, JSP, JDBC, SQL, Sybase, Access, C, C++, Tcl/Tk, Perl, HTML, cgi-programming, Javascript, XML, XSLT, SOAP, Open Inventor, Fortran, Matlab, Maple, Xess, Excel, VBA, Visual Basic, ActiveX, COM, C#, .NET and Python.

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***Operating Systems***

UNIX, Linux, DOS, Windows 3.1/95/98/NT/2000/XP/7/8/10

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***Computer related knowledge***

Programming and software engineering, object-oriented analysis and design, UML, design patterns, numerical methods, algorithms, applied computational geometry, computer graphics, computer-aided engineering, database systems, e-systems integration, web services and information technology.

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***Engineering Software***

ADINA, SAP2000, ETABS, FEAP, SCADA, STRESS, GT-STRUDL, ANSR, DRAIN, AUTOCAD, etc.

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## RESEARCH

### *Research Interests*

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1. **Simulation of Seismically Induced Structural Pounding**
  2. **Simulation of the Seismic Response of Multidrum Columns & Colonnades**
  3. **Simulation of Seismically Isolated Buildings**
  4. **Utilization of Object-Oriented Programming in Structural Analysis**
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### *Funded Research Projects*

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***Investigation of the response and behavior of ancient columns and colonnades during strong earthquake excitations using the discrete element method.***

Project funded by the University of Cyprus after external reviewing.

Duration: June 2005- May 2007

Grant: 50,650 €

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### ***Earthquake-Induced Poundings of Seismically Isolated Structures.***

Project funded by the European Commission under the Marie-Curie Actions.

Duration: January 2006 - December 2007

Grant: 77,000 €

<http://www.eng.ucy.ac.cy/EIPOSIS>

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### ***3D-POUND - Numerical investigation of earthquake-induced poundings of buildings***

Project funded by the Research Promotion Foundation of Cyprus

Duration: December 2010 - November 2013

Grant: ~150,000 €

<http://www.eng.ucy.ac.cy/Archimedes/Projects/3DPound/>

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### ***KIONES-2D - Investigation for the protection of ancient multi-drum columns and colonnades from strong earthquakes***

Project to funded by the Research Promotion Foundation of Cyprus

Duration: July 2011 - November 2014

Grant: ~100,000 €

<http://www.eng.ucy.ac.cy/archimedes/Projects/Columns/index.html>

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### ***Research Lab***

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#### ***Archimedes Research Center for Structural and Construction Technology***

An interdisciplinary research center for design, analysis and construction management of structures in the wider sectors of Civil Engineering.

<http://www.eng.ucy.ac.cy/Archimedes>

Grant: 75,000 €

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## ***Publications***

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<b>Books</b>	<b>2*</b>	<i>*The one of the 2 books has been published in 3 different editions</i>
<b>Edited Books</b>	<b>1</b>	
<b>Book Chapters</b>	<b>5</b>	
<b>Refereed Journal Papers</b>	<b>26</b>	
<b>Papers in Refereed Conference Proceedings</b>	<b>65</b>	
<b>Extended Abstracts in Conference Proceedings</b>	<b>6</b>	

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### ***Books***

- B4 P. Komodromos (2018), “*Structural Analysis: Modern Computer-Aided Methods – Third Edition*”, Academic textbook (950 pages), ISBN 978-960-461-860-6, Klidarithmos Publications, Athens, Greece [in Greek].
- B3 P. Komodromos (2009), “*Structural Analysis: Modern Computer-Aided Methods – Second Edition*”, ISBN 960-7182-44-8 (978-960-7182-44-9), Academic textbook (752 pages), Papatirou A. E., Athens, Greece [in Greek]  
(Adopted as recommended textbook, in at least 5 Universities in Greece).
- B2 P. Komodromos (2006), “*Structural Analysis: Modern Computer-Aided Methods*”, ISBN 9963-644-54-6, Academic textbook (685 pages), Nicosia, Cyprus [in Greek]  
(Adopted as recommended textbook, in at least 1 University in Greece).
- B1 P. Komodromos (2000), “*Seismic Isolation for Earthquake Resistant Structures*”, ISBN 1-85312-803-1 (201 pages), Advances in Earthquake Engineering Series, WIT Press, Southampton, UK.
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### ***Edited Books***

- EB1 M. Phocas, C. Brebbia, and P. Komodromos (2009), “*Earthquake Resistant Engineering Structures VII*”, ISBN: 978-1-84564-180-1, ISSN (print): 1746-4498, ISSN (online): 1743-3509 (515 pages), WIT Transactions on the Built Environment, WIT Press, Southampton, UK.
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### ***Book Chapters***

- BC5 P. G. Asteris, V. Sarhosis, A. Mohebkhah, V. Plevris, L. Papaloizou, P. Komodromos and J.V. Lemos (2015), “*Numerical Modeling of Historic Masonry Structures*”, Book Chapter in Seismic Assessment and Rehabilitation of Historic Structures, pp. 213-256, P.Asteris, V. Plevris (eds.), ISBN13: 9781466682863, IGI Global, PA, USA.

- BC4 P. Polycarpou and P. Komodromos, “*Rubber Shock-Absorbers as a Mitigation Technique for Earthquake Induced Pounding*”, Encyclopedia of Earthquake Engineering, Editors: Michael Beer, Edoardo Patelli, Ioannis Kougoumtzoglou and Ivan Siu-Kui Au, Springer-Verlag, Berlin, Heidelberg, 2015, DOI 10.1007/978-3-642-36197-5\_311-1, pp. 2395-2412 [Invited].
- BC3 P. Polycarpou and P. Komodromos, “*Numerical Investigation of the effectiveness of rubber shock absorbers as a mitigation measure for earthquake-induced structural poundings*”, Computational Methods in Applied Sciences, Computational Methods in Earthquake Engineering, Manolis Papadrakakis, Michalis Fragiadakis and Vagelis Plevris, pp. 417-436, Vol. 2, ISBN: 978-94-007-6572-6, Springer, Netherlands, 2013 [Invited].
- BC2 P. Komodromos, and M.C. Phocas “*Structural applications of energy dissipation systems and seismic isolation in Cyprus*”, Seismic Control Systems - Design and Performance Assessment, pp. 37-46, ISBN: 978-1-84564-672-1, WIT Press, UK, 2012, [Invited].
- BC1 L. Papaloizou and P. Komodromos, “*Seismic Behaviour of Ancient Multidrum Structures*”, Computational Methods in Applied Sciences, Vol. 21, Computational Methods in Earthquake Engineering, pp. 237-264, ISBN 978-94-007-0052-9, Papadrakakis et al., Springer, Netherlands, 2011 [Invited].
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#### ***Refereed Journal Papers***

- J26 Christos Anastasiou and P. Komodromos (2025), “*Assessment of the effect of the soil deformability on the peak response of base-isolated buildings under seismic excitations*”, Earthquakes and Structures, Vol. 28, No 1, 23-35.
- J25 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2020), “*Effect of ground motion directionality on the seismic response of base isolated buildings pounding against adjacent structures*”, Engineering Structures, 207:110202.
- J24 C. Pavlidou and P. Komodromos (2019), “*Peak seismic response of a symmetric base-isolated steel building: near vs. far fault excitations and varying incident angle*”, Earthquakes and Structures, Vol. 18, No 3, 349-365.
- J23 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2017), “*Spatial seismic modeling of base-isolated buildings pounding against moat walls: effects of ground motion directionality and mass eccentricity*”, Earthquake Engineering and Structural Dynamics, Vol. 46, Issue 7, pp. 1161–1179.
- J22 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2016), “*Effect of Planar Impact Modeling on the Pounding Response of Base-Isolated Buildings*”, Frontiers in Built Environment, Earthquake Engineering, Vol. 2, No 11, <http://dx.doi.org/10.3389/fbuil.2016.00011>, pp. 1-16.

- J21 L. Papaloizou, P. C. Polycarpou, P. Komodromos, G. D. Hatzigeorgiou and D. E. Beskos (2016), “*Two-dimensional numerical investigation of the effects of multiple sequential earthquake excitations on ancient multi-drum columns*”, Earthquakes and Structures, Vol. 10, No 3, pp. 495-521.
- J20 D.C. Charmpis, M.C. Phocas and P. Komodromos (2015), “*Optimized retrofit of multi-storey buildings using seismic isolation at various elevations: assessment for several earthquake excitations*”, Bulletin of Earthquake Engineering Vol. 13, No. 9, pp. 2745–2768.
- J19 P. Polycarpou, E. Mavronicola, L. Papaloizou and P. Komodromos (2015), “*Computer-aided investigation of special issues of the response of seismically isolated buildings*” International Journal of Computational Methods and Experimental Measurements, Vol. 3, No. 1, pp. 21–32.
- J18 P. C. Polycarpou, L. Papaloizou, P. Komodromos and Dimos C. Charmpis (2015), “*Effect of the seismic excitation angle on the dynamic response of adjacent buildings during pounding*”, Earthquakes and Structures, Vol. 8, No. 5, pp. 1127-1146.
- J17 E. Mavronicola and P. Komodromos (2014), “*On the response of base-isolated buildings using bilinear models for LRBs subjected to pulse-like ground motions: sharp vs. smooth behaviour*”, Earthquakes and Structures, Vol. 7, No 6, pp. 1223-1240.
- J16 P. Polycarpou, L. Papaloizou and P. Komodromos (2014), “*An efficient methodology for simulating earthquake-induced 3D pounding of buildings*”, Earthquake Engineering & Structural Dynamics, Vol. 43, Issue 7, pp. 985-1003.
- J15 V. Varnava and P. Komodromos (2013), “*Assessing the effect of inherent nonlinearities in the analysis and design of a low-rise base isolated steel building*”, Earthquakes and Structures, Vol. 5, No. 5, pp. 499-526.
- J14 P. Polycarpou, P. Komodromos and A. Polycarpou (2013), “*A non-linear impact model for simulating the use of rubber shock-absorbers for mitigating the effects of structural pounding during earthquakes*”, Earthquake Engineering & Structural Dynamics, Vol 42, Issue 1, pp. 81-100.
- J13 D.C. Charmpis, M.C. Phocas, and P. Komodromos (2012), “*Optimized earthquake response of multi-storey buildings with seismic isolation at various elevations*”, Earthquake Engineering & Structural Dynamics, Vol.41, Issue 15, pp. 2289–2310.
- J12 P. Komodromos and P. Polycarpou (2012), “*Utilization of Object-Oriented Programming, Design Patterns and Java for Simulating Earthquake-Induced Poundings of Base Isolated Buildings*”, International Journal of Computational Methods and Experimental Measurements, Vol. 1, No. 1, pp. 37–54.
- J11 L. Papaloizou and P. Komodromos (2012), “*Investigating the seismic response of ancient multi-drum colonnades with two rows of columns using an object-oriented*

- designed software*”, *Advances in Engineering Software*, Vol. 44, Issue 1, pp. 136-149.
- J10 E. Mavronicola and P. Komodromos (2011), “*Assessing the suitability of equivalent linear elastic analysis of seismically isolated multi-storey buildings*”, *Computers and Structures*, Vol 89, Issues 21-22, pp. 1920-1931.
- J9 P. Polycarpou and P. Komodromos (2011), “*Numerical investigation of potential mitigation measures for poundings of seismically isolated buildings*”, *Earthquakes and Structures*, Vol. 2, No.1, pp. 1-24.
- J8 P. Polycarpou and P. Komodromos (2010), “*Earthquake-induced poundings of a seismically isolated building with adjacent structures*”, *Engineering Structures*, Invited in the Special Issue: Learning from structural failures, Vol. 32, pp. 1937-1951.
- J7 P. Polycarpou and P. Komodromos (2010), “*On poundings of a seismically isolated building with adjacent structures during strong earthquakes*”, *Earthquake Engineering and Structural Dynamics*, Vol. 39, Issue 10, pp. 933-940 (Short Communication).
- J6 L. Papaloizou and P. Komodromos (2009) “*Planar investigation of the seismic response of ancient columns and colonnades with epistyles using a custom-made software*”, *Soil Dynamics and Earthquake Engineering*, Vol. 29, Issues 11-12, pp. 1437-1454.
- J5 P. Komodromos (2008), “*Simulation of the Earthquake-Induced Pounding of Seismically Isolated Buildings*”, *Computers and Structures*, Vol. 86, Issues 7-8, pp. 618-626.
- J4 P. Komodromos, L. Papaloizou, and P. Polycarpou (2008), “*Simulation of the Response of Ancient Columns Under Harmonic and Earthquake Excitations*”, *Engineering Structures*, Vol. 30, Issue 8, pp. 2154-2164.
- J3 P. Komodromos, P. Polycarpou, L. Papaloizou and M.C. Phocas (2007), “*Response of Seismically Isolated Buildings Considering Poundings*”, *Earthquake Engineering and Structural Dynamics*, Vol. 36, Issue 12, pp. 1605-1622.
- J2 P. Komodromos (2005), “*A simplified updated Lagrangian approach for combining discrete and finite element methods*”, *Computational Mechanics*, Vol. 35, Number 4, pp. 305–313.
- J1 P. Komodromos and J. R. Williams (2004), “*Dynamic simulation of multiple deformable bodies using combined discrete and finite element methods*”, *Engineering Computations*, Vol. 21, Number 2/3/4, Special Issue: The discrete element method: numerical modelling of discontinua, pp. 431–448.
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*Papers in Refereed Conference Proceedings*

- C65 C. Anastasiou and P. Komodromos, (2023), "*Utilization of the SAP2000 OAPI to parametrically investigate the effect of soil deformability on the peak seismic response of base isolated buildings*", Proceedings of The 17<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing, Pécs, Hungary.
- C64 C. Anastasiou and P. Komodromos, (2022), "*Investigation of the effect of soil deformability on the peak seismic response of base-isolated buildings*", Proceedings of the 3<sup>rd</sup> European Conference on Earthquake Engineering & Seismology 3ECEES, Bucharest, Romania.
- C63 A. Georgiou and P. Komodromos, (2022), "*Utilization of the SAP2000 OAPI to perform parametric analyses of buildings with torsional effects under seismic excitations with varying incidence angles*", Proceedings of the 3<sup>rd</sup> European Conference on Earthquake Engineering & Seismology 3ECEES, Bucharest, Romania.
- C62 L. Papaloizou, E. Sarris, P. Polycarpou, M. Kyriakides and P. Komodromos, (2022), "*Can ancient multi-drum columns be used as “stone” seismometers?*", Proceedings of the 3<sup>rd</sup> European Conference on Earthquake Engineering & Seismology 3ECEES, Bucharest, Romania.
- C61 C. Pavlidou and P. Komodromos, (2022), "*Effect of earthquake characteristics on the peak seismic response of a typical base isolated steel building with mass eccentricities*", Proceedings of the 14<sup>th</sup> International Conference on Computational Structures Technology, Montpellier, France.
- C60 E. Mavronicola and P. Komodromos, (2022), "*Pounding of a base-isolated building against adjacent fixed-supported buildings during near-fault seismic excitations*", Proceedings of the 14<sup>th</sup> International Conference on Computational Structures Technology, Montpellier, France.
- C59 P. Komodromos, E. Mavronicola and P.C. Polycarpou and (2020), "*Planar and spatial investigation of earthquake induced pounding of base isolated buildings*", Proceedings of the 17<sup>th</sup> World Conference on Earthquake Engineering (17 WCEE), Sendai, Japan (Postponed for 2021).
- C58 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2019), "*Investigation of potential pounding of base isolated buildings under strong near-fault earthquake excitations*", Proceedings of the 16<sup>th</sup> World Conference on Seismic Isolation (16 WCSI), St. Petersburg, Russia.
- C57 C. Pavlidou and P. Komodromos (2019), "*Influence of earthquake characteristics on the peak seismic response of a base isolated steel building*", Proceedings of the 16<sup>th</sup> World Conference on Seismic Isolation (16 WCSI), St. Petersburg, Russia.
- C56 L. Papaloizou, P. Polycarpou, P. Komodromos and E. Sarris. "*Computer-aided investigation of the seismic response of ancient columns*", Proceedings of the 36<sup>th</sup> General Assembly of the European Seismological Commission (GA ESC), September 2018, Valletta, Malta.

- C55 P.C. Polycarpou, E. Mavronicola and P. Komodromos (2018) "*Effects Of The Seismic Incidence Angle On The Response Of Adjacent Buildings Considering Pounding*", Proceedings of the 16<sup>th</sup> European Conference on Earthquake Engineering (16ECEE), June 2018, Thessaloniki, Greece.
- C54 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2018), "*Influence of the Seismic Incidence Angle on the Peak Response of Base-Isolated Buildings: 3D Investigation of Pounding*", Proceedings of 16<sup>th</sup> European Conference on Earthquake Engineering (16ECEE), June 2018, Thessaloniki, Greece.
- C53 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2017), "*Effect of ground motion directionality on seismic response of the pounding response of base-isolated buildings considering pounding to adjacent structures*", Proceedings of the 6<sup>th</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017), Greece.
- C52 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2016), "*Effect of the seismic excitation's incidence angle on the nonlinear behavior of base isolated buildings considering pounding to adjacent moat walls*", Proceedings of the VII European Congress on Computational Methods in Applied Sciences and Engineering, June 2016, Crete, Greece.
- C51 G.N. Eleni and P. Komodromos (2016), "*Seismic response of a base isolated building under near-fault ground motions at varying excitation angles*", Proceedings of the 11<sup>th</sup> HSTAM International Congress on Mechanics (HSTAM2016), Athens, Greece.
- C50 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2015), "*Planar and spatial numerical investigation of the effects of earthquake-induced pounding of base isolated buildings*", Proceedings of the 14<sup>th</sup> World Conference on Seismic Isolation (14 WCSI), San Diego, USA.
- C49 E. Mavronicola, P.C. Polycarpou and P. Komodromos (2015), "*The effect of modified linear viscoelastic impact models on the pounding response of a base-isolated building with adjacent structures*", Proceedings of the 5<sup>th</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2015), Greece.
- C48 L. Papaloizou, P. Komodromos, and P.C. Polycarpou (2014), "*The Effect Of Friction Type Seismic Isolation On Ancient Multi-Drum Columns*", The 12<sup>th</sup> International Conference on Computational Structures Technology (CST2014), Naples, Italy.
- C47 P.C. Polycarpou, P. Komodromos, L. Papaloizou and D.C. Charmpis (2014), "*Investigation of the effects of the angle of seismic incidence on the dynamic response of buildings during pounding*", The 12<sup>th</sup> International Conference on Computational Structures Technology (CST2014), Naples, Italy.
- C46 P. Polycarpou and P. Komodromos (2013), "*On the numerical simulation of structural pounding in three dimensions*", The 2013 World Congress on Advances in Structural Engineering and Mechanics (ASEM13) - International Conference on Earthquakes and Structures, Jeju, Korea.

- C45 P.C. Polycarpou, P. Komodromos, L. Papaloizou and D.C. Charmpis (2013), "*Three-Dimensional Simulation of Earthquake-Induced Pounding of Seismically Isolated Buildings*", The 14<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (CC2013), Gagliari, Italy.
- C44 P. Polycarpou and P. Komodromos (2013), "*An efficient numerical approach for the parametric investigation of the effects of pounding on the 3D dynamic response of buildings during earthquakes*", The 4<sup>th</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2013), Kos, Greece.
- C43 L. Papaloizou and P. Komodromos (2013), "*The effect of multiple earthquake excitations in sequence on ancient multi-drum structures*", The 4<sup>th</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2013), Kos, Greece.
- C42 V. Varnava and P. Komodromos (2012), "*Analysis, design and techno-economic assessment of a base isolated steel building*", Proceedings of the 15<sup>th</sup> World Conference on Earthquake Engineering (15WCEE), Lisbon, Portugal.
- C41 P. Polycarpou and P. Komodromos (2012), "*A methodology for an efficient three-dimensional (3D) numerical simulation of earthquake-induced pounding of buildings*", Proceedings of the 15<sup>th</sup> World Conference on Earthquake Engineering (15WCEE), Lisbon, Portugal.
- C40 L. Papaloizou and P. Komodromos (2012), "*The effect of earthquakes' vertical components on ancient multi-drum structures*", Proceedings of the 15<sup>th</sup> World Conference on Earthquake Engineering (15WCEE), Lisbon, Portugal.
- C39 E. Mavronicola and P. Komodromos (2012), "*The effect of non-linear parameters on the modeling of multi-storey seismically isolated buildings*", Proceedings of the 15<sup>th</sup> World Conference on Earthquake Eng. (15WCEE), Lisbon, Portugal.
- C38 P. Komodromos and P. Polycarpou (2011), "*Research on seismic pounding of base isolated buildings*", Proceedings of the Twelveth World Conference on Seismic Isolation (12 WCSI), Sochi, Russia.
- C37 L. Papaloizou and P. Komodromos (2011), "*The dynamic analysis of multi-drum ancient structures under earthquake excitations*", Proceedings of the 2<sup>nd</sup> INQUA-IGCP-567 International Workshop on Active Tectonics, Earthquake Geology, Archaeology and Engineering, Corinth, Greece.
- C36 P. Polycarpou and P. Komodromos (2011), "*A parametric study for the investigation of the effectiveness of rubber shock-absorbers as a mitigation measure forearthquake induced structural poundings*", Proceedings of the 3<sup>rd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2011), Corfu, Greece.

- C35 P. Polycarpou and P. Komodromos (2011), “*Numerical investigation of structural pounding of seismically isolated buildings during strong earthquakes*”, Proceedings of the Structural Engineers World Congress 2011, Como, Italy.
- C34 E. Mavronicola, P. Komodromos and D. C. Charmpis (2010), “*Modeling the usage of rubber-soil mixtures to reduce the induced floor accelerations of buildings*”, Proceedings of the 10<sup>th</sup> International Conference on Computational Structures Technology (CST2010), Valenthia, Spain.
- C33 P. Polycarpou and P. Komodromos (2010), “*On the numerical simulation of impacts for the investigation of earthquake-induced pounding of buildings*”, Proceedings of the 10<sup>th</sup> International Conference on Computational Structures Technology (CST2010), Valenthia, Spain.
- C32 L. Papaloizou and P. Komodromos (2010), “*The use of discrete element methods on the dynamic analysis of multi-drum ancient structures*”, Proceedings of the 5<sup>th</sup> International Conference on Discrete Element Methods (DEM5), London, UK.
- C31 P. Polycarpou and P. Komodromos (2010), “*Simulating seismically isolated buildings under earthquake-induced pounding incidences*”, Proceedings of the 11<sup>th</sup> Intern. Conf. on Structures Under Shock and Impact (SUSI2010), Tallinn, Estonia.
- C30 L. Papaloizou and P. Komodromos (2009), “*Parameters influencing the seismic response of ancient columns and colonnades*”, Proceedings of the 12<sup>th</sup> Intern. Conf. on Civil, Structural and Environmental Engineering Computing, Madeira, Portugal.
- C29 E. Mavronicola and P. Komodromos (2009), “*Assessing the suitability of equivalent linear elastic analysis of seismically isolated multi-storey buildings*”, Proceedings of the 12<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing, Madeira, Portugal.
- C28 P. Polycarpou and P. Komodromos (2009), “*Poundings of seismically isolated buildings with adjacent structures*”, Proceedings of the 12<sup>th</sup> International Conference on Civil, Structural and Envip. Engineering Computing, Madeira, Portugal.
- C27 L. Papaloizou and P. Komodromos (2009), “*Parameters influencing the dynamic response of rigid block assemblies in numerical simulations*”, Proceedings of the 2<sup>nd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece.
- C26 E. Mavronicola and P. Komodromos (2009), “*On the suitability of proposed equivalent linear elastic models for multi-story seismically isolated buildings*”, Proceedings of the 2<sup>nd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Eng. (COMPDYN 2009), Rhodes, Greece.
- C25 P. Polycarpou and P. Komodromos (2009), “*Simulating the use of rubber shock absorbers for mitigating poundings of seismically isolated buildings during strong earthquakes*”, Proceedings of the 2<sup>nd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece.

- C24 D.C. Charmpis, M.C. Phocas and P. Komodromos (2009), "*Controlling earthquake response of multi-storey buildings with optimized configurations of seismic isolators at various elevations*", Proceedings of the 2<sup>nd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece.
- C23 P. Komodromos and M.C. Phocas (2009), "*State of the art of application of seismic isolation and energy dissipation systems to civil structures in Cyprus*", Proceedings of the 7<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (ERES 2009), Limassol, Cyprus.
- C22 L. Papaloizou, P. Polycarpou and P. Komodromos (2008), "*Numerical analysis of ancient multi-drum columns with epistyles under dynamic loadings*", Proceedings of the 14<sup>th</sup> World Conf. on Earthquake Engineering (14WCEE), Beijing, China.
- C21 E. Mavronicola, P. Polycarpou, L. Papaloizou, M.C. Phocas and P. Komodromos (2008), "*On the linearization of the seismic behavior of seismic isolation systems*", Proceedings of the 14<sup>th</sup> World Conference on Earthquake Engineering (14WCEE), Beijing, China.
- C20 P. Polycarpou, L. Papaloizou, E. Mavronicola and P. Komodromos (2008), "*Numerical Simulations of seismically isolated buildings considering poundings with adjacent structures*", Proceedings of the 14<sup>th</sup> World Conference on Earthquake Engineering (14WCEE), Beijing, China.
- C19 L. Papaloizou, P. Polycarpou and P. Komodromos (2008), "*Seismic response of ancient columns and colonnades*", Proceedings of the 3<sup>rd</sup> Panhellenic Conference on Earthquake Engineering and Engineering Seismology, Athens, Greece.
- C18 E. Mavronicola, P. Polycarpou, L. Papaloizou, M.C. Phocas and P. Komodromos (2008), "*Investigation of the suitability of using equivalent linear models to simulate seismic isolation systems*", Proceedings of the 3<sup>rd</sup> Panhellenic Conference on Earthquake Engineering and Engineering Seismology, Athens, Greece.
- C17 P. Polycarpou, L. Papaloizou and P. Komodromos (2008), "*Investigation of pounding effects on the response of seismically isolated buildings*", Proceedings of the 3<sup>rd</sup> Panhellenic Conference on Earthquake Eng. and Eng. Seismology, Athens, Greece.
- C16 L. Papaloizou, P. Polycarpou and P. Komodromos (2008), "*Effect of harmonic excitation frequency on the dynamic response of ancient multi-drum columns with epistyles*", Proceedings of the 10<sup>th</sup> Pan American Congress of Applied Mechanics (PACAM X), Cancun, Mexico.
- C15 P. Polycarpou, L. Papaloizou, E. Mavronicola, P. Komodromos and M.C. Phocas (2008), "*Earthquake induced poundings of seismically isolated buildings: The effect of the vertical location of impacts*", Proceedings of the 10<sup>th</sup> Pan American Congress of Applied Mechanics (PACAM X), Cancun, Mexico.
- C14 P. Komodromos, L. Papaloizou, P. Polycarpou and E. Mavronicola (2007), "*Modern Object-Oriented Design of Structural Engineering Software*", Proceedings of the 11<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing, St. Julians, Malta.

- C13 L. Papaloizou, P. Polycarpou and P. Komodromos (2007), “*Investigation of the response of ancient columns under seismic excitations*”, Proceedings of the 8<sup>th</sup> HSTAM International Congress on Mechanics, Patras, Greece.
- C12 L. Papaloizou, P. Polycarpou and P. Komodromos (2007), “*Ancient columns and colonnades under harmonic and earthquake excitations*”, Papadrakakis, M., Charmpis, D.C., Lagaros, N.D., Tsompanakis Y. (eds.), Proceedings of the Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2007), Rethymno, Crete, Greece.
- C11 P. Polycarpou, L. Papaloizou, M.C. Phocas and P. Komodromos (2007), “*Effects of Earthquake Induced Poundings on the Response of Seismically Isolated Buildings*”, M. Papadrakakis, D.C. Lagaros, N.D. Charmpis, Y. Tsompanakis (eds.), Proceedings of the Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2007), Rethymno, Crete, Greece.
- C10 P. Polycarpou, L. Papaloizou, P. Komodromos, and M.C. Phocas (2007), “*Modeling of Structural Impact of Seismically Isolated Buildings*”, Proceedings of the 6<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (ERES), Bologna, Italy.
- C9 P. Komodromos and M.C. Phocas (2007), “*Application, Research and Development of Seismic Structural Control in Cyprus*”, Proceedings of the 10<sup>th</sup> World Conf. on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures, Anti-Seismic Systems International Society (ASSISi), Istanbul, Turkey.
- C8 A. Martelli, ..., P. Komodromos et al. (2007), “*Current Status of Application of Seismic Isolation and Other Passive Anti-Seismic Systems to Buildings, Cultural Heritage and Industrial Plants in Italy and Worldwide*”, Proceedings of the 10<sup>th</sup> World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures, ASSISi, Istanbul, Turkey.
- C7 P. Komodromos (2006), “*Poundings of seismically isolated buildings during strong earthquakes*”, Structures Under Shock and Impact IX, N. Jones & C. A. Brebbia (Editors), The Built Environment, Vol. 87, 557-568, New Forest, UK.
- C6 P. Komodromos (2006), “*On the effectiveness of seismic isolation considering poundings*”, Paper No. 1674, Proceedings of the 8<sup>th</sup> U.S. National Conference on Earthquake Engineering, San Francisco, California, USA.
- C5 P. Komodromos (2005), “*Simulation of earthquake-induced pounding of seismically isolated buildings*”, Proceedings of the 10<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing, Civil-Comp Press, B. H. V. Topping (Editor), Rome, Italy.
- C4 P. Komodromos (2005), “*Influence of earthquake-induced poundings on the effectiveness of seismic isolation*”, Proceedings of the 5<sup>th</sup> GRACM International Congress on Computational Mechanics, pp. 281-289, G. Georgiou, P. Papanastasiou and M. Papadrakakis (Editors), Limassol, Cyprus.
- C3 P. Komodromos and J. R. Williams (2002), “*On the Simulation of Deformable Bodies Using Combined Discrete and Finite Element Methods*”, ASCE Geotechnical Special Publication (No. 117), Proceedings of the 3<sup>rd</sup> International Conference on Discrete

Element Methods, B. K. Cook, and R. P. Jensen (Editors), pp. 138-144, Santa-Fe, New Mexico, USA.

- C2 P. Komodromos and J. R. Williams (2002), “*Utilization of Java and Database Technology in the Development of a Combined Discrete and Finite Element Multibody Dynamics Simulator*”, ASCE Geotechnical Special Publication (No. 117), Proceedings of the 3<sup>rd</sup> Intern. Conference on Discrete Element Methods, B. K. Cook, and R. P. Jensen (Editors), pp. 118-124, Santa-Fe, New Mexico, USA.
- C1 P. Komodromos and K. Orsborn (2000), “*Use of Database Technology for Coupled Discrete-Finite Element Simulations of Multibody systems*”, Proceedings of the 2<sup>nd</sup> International Conference on Engineering Computational Technology, Civil-Comp Press, B. H. V. Topping (Editor), Leuven, Belgium.

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***Extended Abstracts in Refereed Conference Proceedings***

6. P. Komodromos, L. Papaloizou, P. Polycarpou, and M. C. Phocas (2006), “*Utilization of Object-oriented technologies and design patterns in the development of software for structural dynamics*”, Proceedings of the 1<sup>st</sup> European Conference on Earthquake Engineering and Seismology (ECEES), Geneva, Switzerland.
5. P. Polycarpou, L. Papaloizou, and P. Komodromos (2006), “*Consequences of Earthquake-Induced Poundings of Seismically Isolated Buildings*”, Proceedings of the 1<sup>st</sup> European Conference on Earthquake Engineering and Seismology (ECEES), Geneva, Switzerland.
4. L. Papaloizou, P. Polycarpou, and P. Komodromos (2006), “*Seismic response and behavior of ancient columns*”, The First European Conference on Earthquake Engineering and Seismology (1<sup>st</sup> ECEES), Geneva, Switzerland.
3. M. C. Phocas and P. Komodromos (2006), “*Multi-Storey Structures with Vertically Distributed Seismic Isolation*”, Proceedings of the 1<sup>st</sup> European Conf. on Earthquake Engineering and Seismology (ECEES), Geneva, Switzerland.
2. P. Komodromos (2005), “*Impact effects on the behavior of seismically isolated buildings*”, Proceedings of the 3<sup>rd</sup> M.I.T. Conference on Computational Fluid and Solid Mechanics, Elsevier, K.J. Bathe (Editor) Cambridge, USA.
1. P. Komodromos (2005), “*Poundings of seismically isolated buildings during strong earthquakes*”, Proceedings of the 5<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (ERES), WIT Press, C. Brebbia, D. Beskos, G. Manolis and C. Spyarakos (Editors), Skiathos, Greece.

## *Presentations at International Conferences*

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### *Invited Conference Presentations*

1. P. Komodromos (2005), “*Poundings of seismically isolated buildings during strong earthquakes*”, The 5th International Conference on Earthquake Resistant Engineering Structures (ERES 2005), Skiathos, Greece, May, 2005.
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### *Conference Presentations*

49. C. Anastasiou and P. Komodromos, (2023), " *Utilization of the SAP2000 OAPI to parametrically investigate the effect of soil deformability on the peak seismic response of base isolated buildings*", The 17<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing, Pécs, Hungary.
48. C. Pavlidou and P. Komodromos, (2022), " *Effect of earthquake characteristics on the peak seismic response of a typical base isolated steel building with mass eccentricities*", The 14<sup>th</sup> International Conference on Computational Structures Technology, Montpellier, France.
47. E. Mavronicola and P. Komodromos, (2022), " *Pounding of a base-isolated building against adjacent fixed-supported buildings during near-fault seismic excitations*", The 14<sup>th</sup> International Conference on Computational Structures Technology, Montpellier, France.
46. E. Mavronicola, P.C. Polycarpou and P. Komodromos (2019), " *Investigation of potential pounding of base isolated buildings under strong near-fault earthquake excitations*", The 16<sup>th</sup> World Conference on Seismic Isolation (16 WCSI), St. Petersburg, Russia.
45. C. Pavlidou and P. Komodromos (2019), " *Influence of earthquake characteristics on the peak seismic response of a base isolated steel building*", The 16<sup>th</sup> World Conference on Seismic Isolation (16 WCSI), St. Petersburg, Russia.
44. P.C. Polycarpou, E. Mavronicola and P. Komodromos (2018) " *Effects Of The Seismic Incidence Angle On The Response Of Adjacent Buildings Considering Pounding*", The 16<sup>th</sup> European Conference on Earthquake Engineering (16ECEE), Thessaloniki, Greece, June 2018.
43. E. Mavronicola, P.C. Polycarpou and P. Komodromos (2018), " *Influence of the Seismic Incidence Angle on the Peak Response of Base–Isolated Buildings: 3D Investigation of Pounding*", The 16<sup>th</sup> European Conference on Earthquake Engineering (16ECEE), Thessaloniki, Greece, June 2018.
42. L. Papaloizou, P. Polycarpou, P. Komodromos and E. Sarris. “ *Computer-aided investigation of the seismic response of ancient columns*”, The 36<sup>th</sup> General Assembly of the European Seismological Commission (GA ESC), Valletta, Malta, September 2018.



41. G.N. Eleni and P. Komodromos (2016), "*Seismic response of a base isolated building under near-fault ground motions at varying excitation angles*", Proceedings of the 11<sup>th</sup> HSTAM International Congress on Mechanics (HSTAM2016), Athens, Greece, May 2016.
40. E. Mavronicola, P.C. Polycarpou and P. Komodromos (2015), "*Planar and spatial numerical investigation of the effects of earthquake-induced pounding of base isolated buildings*", The 14<sup>th</sup> World Conference on Seismic Isolation (14 WCSI), San Diego, USA, September 2015.
39. P. Polycarpou and P. Komodromos, "*On the numerical simulation of structural pounding in three dimensions*", The 2013 World Congress on Advances in Structural Engineering and Mechanics (ASEM13) - International Conference on Earthquakes and Structures, Jeju, Korea, September 2013.
38. P.C. Polycarpou, P. Komodromos, L. Papaloizou and D.C. Charmpis, "*Three-Dimensional Simulation of Earthquake-Induced Pounding of Seismically Isolated Buildings*", The 14<sup>th</sup> International Conference on Civil, Structural and Environm. Engineering Computing (CC2013), Gagliari, Italy, Sept. 2013.
37. P. Polycarpou and P. Komodromos, "*An efficient numerical approach for the parametric investigation of the effects of pounding on the 3D dynamic response of buildings during earthquakes*", The 4<sup>th</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2013), Kos, Greece, June 2013.
36. P. Polycarpou and P. Komodromos, "*A methodology for an efficient three-dimensional (3D) numerical simulation of earthquake-induced pounding of buildings*", The 15<sup>th</sup> World Conference on Earthquake Engineering (15WCEE), Lisbon, Portugal, September 2012.
35. L. Papaloizou and P. Komodromos, "*The dynamic analysis of multi-drum ancient structures under earthquake excitations*", The 2<sup>nd</sup> INQUA-IGCP-567 International Workshop on Active Tectonics, Earthquake Geology, Archaeology and Engineering, Corinth, Greece, 2011.
34. P. Komodromos and P. Polycarpou, "*Research on seismic pounding of base isolated buildings*", The Twelveth World Conference on Seismic Isolation (12 WCSI), Sochi, Russia, September 2011.
33. P. Polycarpou and P. Komodromos, "*A parametric study for the investigation of the effectiveness of rubber shock-absorbers as a mitigation measure for earthquake induced structural poundings*", The Third International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2011), Corfu, Greece, May 2011.
32. P. Polycarpou and P. Komodromos, "*Numerical investigation of structural pounding of seismically isolated buildings during strong earthquakes*", Structural Engineers World Congress 2011, Como, Italy, April 2011.

31. E. Mavronicola, P. Komodromos and D. C. Charmpis, “*Modeling the usage of rubber-soil mixtures to reduce the induced floor accelerations of buildings*”, The 10<sup>th</sup> International Conference on Computational Structures Technology, Valenthia, Spain, September 2010.
30. P. Polycarpou and P. Komodromos, “*On the numerical simulation of impacts for the investigation of earthquake-induced pounding of buildings*”, The 10<sup>th</sup> International Conference on Computational Structures Technology, Valenthia, Spain, September 2010.
29. L. Papaloizou and P. Komodromos, “*The use of discrete element methods on the dynamic analysis of multi-drum ancient structures*”, The 5<sup>th</sup> International Conference on Discrete Element Methods, London, UK, August 2010.
28. P. Polycarpou and P. Komodromos, “*Simulating seismically isolated buildings under earthquake-induced pounding incidences*”, The 11<sup>th</sup> International Conference on Structures Under Shock and Impact, Tallinn, Estonia, July 2010.
27. L. Papaloizou and P. Komodromos, “*Parameters influencing the seismic response of ancient columns and colonnades*”, The 12<sup>th</sup> Intern. Conf. on Civil, Structural and Enviromental Engineering Computing, Madeira, Portugal, September 2009.
26. E. Mavronicola and P. Komodromos, “*Assessing the suitability of equivalent linear elastic analysis of seismically isolated multi-storey buildings*”, The 12<sup>th</sup> International Conference on Civil, Structural and Enviromental Engineering Computing, Madeira, Portugal, September 2009.
25. P. Polycarpou and P. Komodromos, “*Poundings of seismically isolated buildings with adjacent structures*”, The 12<sup>th</sup> International Conference on Civil, Structural and Enviromental Engineering Computing, Madeira, Portugal, September 2009.
24. L. Papaloizou and P. Komodromos, “*Parameters influencing the dynamic response of rigid block assemblies in numerical simulations*”, The 2<sup>nd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece, June 2009.
23. E. Mavronicola and P. Komodromos, “*On the suitability of proposed equivalent linear elastic models for multi-story seismically isolated buildings*”, The 2<sup>nd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece, June 2009.
22. P. Polycarpou and P. Komodromos, “*Simulating the use of rubber shock absorbers for mitigating poundings of seismically isolated buildings during strong earthquakes*”, Proceedings of the 2<sup>nd</sup> International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece, June 2009.
21. D.C. Charmpis, M.C. Phocas and P. Komodromos, “*Controlling earthquake response of multi-storey buildings with optimized configurations of seismic isolators at various elevations*”, The 2<sup>nd</sup> International Conference on Computational Methods in Structural

- Dynamics and Earthquake Engineering (COMPDYN 2009), Rhodes, Greece, June 2009.
20. P. Komodromos and M.C. Phocas (2009), "*State of the art of application of seismic isolation and energy dissipation systems to civil structures in Cyprus*", The 7<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (ERES 2009), Limassol, Cyprus, May 2009.
  19. L. Papaloizou, P. Polycarpou and P. Komodromos, "*Numerical analysis of ancient multi-drum columns with epistyles under dynamic loadings*", The 14<sup>th</sup> World Conference on Earthquake Engineering (14WCEE), Beijing, China, October 2008.
  18. E. Mavronicola, P. Polycarpou, L. Papaloizou, M.C. Phocas and P. Komodromos, "*On the linearization of the seismic behavior of seismic isolation systems*", The 14<sup>th</sup> World Conference on Earthquake Engineering (14WCEE), Beijing, China, October 2008.
  17. E. Mavronicola, P. Polycarpou, L. Papaloizou, M.C. Phocas, and P. Komodromos, "*Investigation of the suitability of using equivalent linear models to simulate seismic isolation systems*", The 3<sup>rd</sup> Panhellenic Conf. on Earthquake Engineering and Engineering Seismology, Athens, Greece, November 2008.
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  15. L. Papaloizou, P. Polycarpou, and P. Komodromos, "*Numerical analysis of ancient multi-drum columns with epistyles under dynamic loadings*", The 14<sup>th</sup> World Conference on Earthquake Engineering (14WCEE), Beijing, China, October 2008.
  14. E. Mavronicola, P. Polycarpou, L. Papaloizou, M.C. Phocas, and P. Komodromos, "*On the linearization of the seismic behavior of seismic isolation systems*", The 14<sup>th</sup> World Conference on Earthquake Engineering (14WCEE), Beijing, China, October 2008.
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  12. L. Papaloizou, P. Polycarpou, and P. Komodromos, "*Investigation of the response of ancient columns under seismic excitations*", The 8<sup>th</sup> HSTAM International Congress on Mechanics, Patras, Greece, July 2007.
  11. L. Papaloizou, P. Polycarpou, and P. Komodromos, "*Ancient columns and collonades under harmonic and earthquake excitations*", Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2007), Rethymno, Crete, Greece, June 2007.

10. P. Polycarpou, L. Papaloizou, M.C. Phocas, and P. Komodromos, “*Effects of Earthquake Induced Poundings on the Response of Seismically Isolated Buildings*”, Computational Methods in Structural Dynamics and Earthquake Engineering, COMPDYN 2007, Rethymno, Crete, Greece, June 2007.
  9. P. Komodromos and M.C. Phocas, “*Application, Research and Development of Seismic Structural Control in Cyprus*”, The 10<sup>th</sup> World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures, Anti-Seismic Systems International Society, Istanbul, Turkey, May 2007.
  8. Martelli, A., ..., P. Komodromos et al., “*Current Status of Application of Seismic Isolation and Other Passive Anti-Seismic Systems to Buildings, Cultural Heritage and Industrial Plants in Italy and Worldwide*”, The 10<sup>th</sup> World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures, Anti-Seismic Systems Intern. Society, Istanbul, Turkey, June 2007.
  7. P. Polycarpou, L. Papaloizou, and P. Komodromos, “*Consequences of Earthquake-Induced Poundings of Seismically Isolated Buildings*”, The 1<sup>st</sup> European Conference on Earthquake Engineering and Seismology (ECEES), Geneva, Switzerland, September 2006.
  6. P. Komodromos, “*Simulation of earthquake-induced pounding of seismically isolated buildings*”, The 10<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing, Rome, Italy, August 2005.
  5. P. Komodromos, “*Influence of earthquake-induced poundings on the effectiveness of seismic isolation*”, The 5<sup>th</sup> GRACM International Congress on Computational Mechanics, Limassol, Cyprus, June 2005.
  4. P. Komodromos, “*Impact effects on the behavior of seismically isolated buildings*”, The 3<sup>rd</sup> M.I.T. Conference on Computational Fluid and Solid Mechanics, Cambridge, USA, June 2005.
  3. P. Komodromos and J. R. Williams, “*On the Simulation of Deformable Bodies Using Combined Discrete and Finite Element Methods*”, The 3<sup>rd</sup> International Conference on Discrete Element Methods, Santa-Fe, New Mexico, USA, September 2002.
  2. P. Komodromos and J. R. Williams, “*Utilization of Java and Database Technology in the Development of a Combined Discrete and Finite Element Multibody Dynamics Simulator*”, The 3<sup>rd</sup> International Conference on Discrete Element Methods, Santa-Fe, New Mexico, USA, September 2002.
  1. P. Komodromos and K. Orsborn, “*Use of Database Technology for Coupled Discrete-Finite Element Simulations of Multibody systems*”, The 2<sup>nd</sup> International Conference on Engineering Computational Technology, Leuven, Belgium, September, 2000.
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### **Conference Posters**

7. V. Varnava and P. Komodromos, “*Analysis, design and techno-economic assessment of a base isolated steel building*”, Proceedings of the 15<sup>th</sup> World Conf. on Earthquake Engineering (15WCEE), Lisbon, Portugal, September 2012.
6. L. Papaloizou and P. Komodromos, “*The effect of earthquakes’ vertical components on ancient multi-drum structures*”, Proceedings of the 15<sup>th</sup> World Conf. on Earthquake Engineering (15WCEE), Lisbon, Portugal, September 2012.
5. E. Mavronicola and P. Komodromos, “*The effect of non-linear parameters on the modeling of multi-storey seismically isolated buildings*”, Proc. of the 15<sup>th</sup> World Conf. on Earthquake Engineering (15WCEE), Lisbon, Portugal, September 2012.
4. P. Komodromos, L. Papaloizou, P. Polycarpou, and M. C. Phocas (2006), “*Utilization of Object-oriented technologies and design patterns in the development of software for structural dynamics*”, The 1<sup>st</sup> European Conference on Earthquake Engineering and Seismology (ECEES), Geneva, Switzerland, September 2006.
3. L. Papaloizou, P. Polycarpou, and P. Komodromos (2006), “*Seismic response and behavior of ancient columns*”, The 1<sup>st</sup> European Conference on Earthquake Engineering and Seismology (ECEES), Geneva, Switzerland, September 2006.
2. M. C. Phocas and P. Komodromos (2006), “*Multi-Storey Structures with Vertically Distributed Seismic Isolation*”, The 1<sup>st</sup> European Conference on Earthquake Engineering and Seismology (Geneva, Switzerland, September 2006.
1. P. Komodromos (2006), “*On the effectiveness of seismic isolation considering the pounding*”, 100<sup>th</sup> Anniversary Earthquake Conference, San Francisco, April 2006.

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### **Papers Presented and Distributed at Workshops**

P. Polycarpou, L. Papaloizou, and P. Komodromos (2007), "*Seismic isolation of buildings - Investigation of the consequences of potential poundings during strong earthquakes*", Workshop organized by the Network of Interstate Collaboration Between Greece and Cyprus addressing the Earthquake Consequences on the Built Environment, Thessaloniki, Greece, January 2007.

L. Papaloizou, P. Polycarpou, and P. Komodromos (2007), "*Response of ancient multidrum columns under earthquake excitations*", Workshop of the Network of Interstate Collaboration Between Greece and Cyprus addressing the Earthquake Consequences on the Built Environment, Thessaloniki, Greece, January 2007.

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## ***Organization of International Scientific Conferences***

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### ***Organizing International Scientific Conferences***

The 7<sup>th</sup> *International Conference on Earthquake Resistant Engineering Structures (ERES 2009)*, May 11-13, 2009, Limassol, Cyprus.

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### ***Participation in Conference Organizing Committees***

The 5<sup>th</sup> GRACM International Congress on Computational Mechanics, 2005, Limassol, Cyprus.

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### ***Participation in Conference Scientific Committees***

26. Member of the Scientific Committee of the 9<sup>th</sup> International Conference on Discrete Element Methods (DEM9), Erlangen, Germany, September 2023.
25. Member of the Scientific Committee of the 4<sup>th</sup> International Conference on Protection of Historical Constructions (PROHITECH 2020), Athens, Greece, July 2020.
24. Member of the Editorial Board of the 16<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (CC2019), Lake Garda, Italy, September 2019.
23. Member of the Scientific Committee of the 12<sup>th</sup> International Congress on Mechanics (HSTAM), Thessaloniki, Greece, September 2019.
22. Member of the Scientific Committee of the 8<sup>th</sup> International Conference on Discrete Element Methods (DEM8), Enschede, The Netherlands, July 2019.
21. Member of the Editorial Board of the 13<sup>th</sup> Intern. Conference on Computational Structures Technology (CST2018), Sitges, Barcelona, Spain, September 2018.
20. Member of the Scientific Committee of the 7<sup>th</sup> International Conference on Discrete Element Methods (DEM2013), Dalian, China, August, 2016.
19. The 15<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (CC2015), Prague, Czech Republic, September 2015.
18. Member of the Editorial Board of the 12<sup>th</sup> Intern. Conference on Computational Structures Technology (CST2014), Naples, Italy, September 2014.
17. Member of the Scientific Committee of the The 2013 International Conference on Earthquakes and Structures (ICEAS13), Jeju, Korea, September 2013.

16. Member of the Editorial Board of the 14<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (CC2013), Cagliari, Sardinia, Italy, September 2013.
15. Member of the Scientific Committee of the 6<sup>th</sup> International Conference on Discrete Element Methods (DEM2013), Colorado School of Mines in Golden Colorado, USA, August, 2013.
14. Member of the Editorial Board of the 12<sup>th</sup> Intern. Conference on Computational Structures Technology (CST2012), Dubrovnik, Croatia, September 2012.
13. Member of the International Scientific Advisory Committee of the 8<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2011*), Chianciano Terme, Italy, May 2011.
12. Member of the Editorial Board of the 13<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (CC2011) Chania, Crete, Greece, September 2011.
11. Member of the Scientific Committee of the 4<sup>th</sup> Structural Engineering World Congress (SEWC-2011), Como, Italy, April 2011.
10. Member of the Scientific Committee of the 5<sup>th</sup> International Conference on Discrete Element Methods (DEM2010), London, UK, August 2010.
9. Member of the Editorial Board of the 10<sup>th</sup> International Conference on Computational Structures Technology (CST2010), Valencia, Spain, September 2010.
8. Member of the Scientific Committee of the 11<sup>th</sup> Pan-American Congress of Applied Mechanics (*PACAM XI*), Parana, Brazil, January 2010.
7. Member of the International Scientific Advisory Committee of the 7<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2009*), Limassol, Cyprus, May 2009.
6. Member of the Editorial Board of the 12<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (CC2009), Funchal, Madeira Island, September 2009.
5. Member of the Scientific Committee of the 3<sup>rd</sup> Panhellenic Conference on Earthquake Engineering and Engineering Seismology (*3PCEEES*), Athens, Greece, November 2008.
4. Member of the Scientific Committee of *The Tenth Pan American Congress of Applied Mechanics (PACAM X)*, Cancun, Mexico, January 2008.
3. Member of the International Scientific Advisory Committee of the 6<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2007*), Bologna, Italy, 2007.

2. Member of the International Technical Committee of the Discrete Element Methods (*DEM2007*), Brisbane, Australia, 2007.
  1. Member of the International Scientific Advisory Committee of the 5<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2005*), Skiathos, Greece, 2005.
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#### ***Organizing Conference Special Sessions/Mini Symposiums***

Co-organization (with Assoc. Prof. Gilberto Mosqueda, University of California, San Diego) of a Mini Symposium on *Structural Pounding* during The 2013 International Conference on Earthquakes and Structures (*ICEAS13*), Jeju, Korea.

Co-organization (with Asst. Prof. M. C. Phocas) of a special session on *Seismic Isolation* during the Sixth International Conference on Earthquake Resistant Engineering Structures (*ERES 2007*) conference, Bologna, Italy.

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#### ***Chairman at Conference Sessions***

8. The 2013 World Congress on Advances in Structural Engineering and Mechanics (*ASEM13*) - International Conference on Earthquakes and Structures, Jeju, Korea – Structural Pounding.
  7. The 12<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (*CC2009*) – Seismic Design, Madeira, Portugal.
  6. Computational Methods in Structural Dynamics and Earthquake Engineering (*COMPDYN 2009*), June 2009.
  5. The 6<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2009*): *Earthquake Engineering II*, June 2009.
  4. Computational Methods in Structural Dynamics and Earthquake Engineering (*COMPDYN 2007*), Seismic Isolation Session, June 2007.
  3. The 5<sup>th</sup> GRACM International Congress on Computational Mechanics (*GRACM05*): *Structural Dynamics and Earthquake Engineering II*, July 2005.
  2. The 3<sup>rd</sup> MIT Conference on Computational Fluid and Solid Mechanics: *Analysis for earthquake resistant design, Part I and Part II Sessions*, June 2005.
  1. The 5<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2005*): *Design codes and Response spectra II*, June 2005.
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**Reviewing Scientific Papers**

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**Reviewing Conference Papers**

14. The 4<sup>th</sup> International Conference on Protection of Historical Constructions (PROHITECH 2020).
13. The 13<sup>th</sup> International Conference on Civil, Structural and Environmental Engineering Computing (CC2011).
12. The 8<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2011*).
11. The 4<sup>th</sup> Structural Engineering World Congress (*SEWC-2011*).
10. The The 10<sup>th</sup> International Conference on Computational Structures Technology (CST-2010).
9. The 11<sup>th</sup> Pan American Congress of Applied Mechanics (*PACAM XI*).
8. The 7<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2009*).
7. The 3<sup>rd</sup> Panhellenic Conference on Earthquake Engineering and Engineering Seismology (*3PCEEES*).
6. The 10<sup>th</sup> Pan American Congress of Applied Mechanics (*PACAM X*).
5. The 6<sup>th</sup> International Conference on Earthquake Resistant Engineering Structures (*ERES 2007*).
4. Special session on *Seismic Isolation* during the ERES 2007 conference.
3. Discrete Element Methods (*DEM 2007*).
2. The 5<sup>th</sup> GRACM International Congress on Computational Mechanics.
1. The 5<sup>th</sup> fth International Conference on Earthquake Resistant Engineering Structures (*ERES 2005*).

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**Reviewing Journal Papers**

24. Structural Engineering International
23. Journal of Building Engineering
22. Applied Sciences (MDPI)
21. Advances in Materials Science and Engineering (Hindawi)

20. Geomechanics and Engineering, An International Journal (TechnoPress)
19. Shock and Vibration (Hindawi)
18. Structure and Infrastructure Engineering (Taylor and Francis)
17. International Journal of Structural Integrity (Emerald Group)
16. International Journal of Mechanical Sciences (Elsevier)
15. International Journal of Solids and Structures (Elsevier)
14. Advances in Structural Engineering (Multi-Science Publishing Company)
13. Bulletin of Earthquake Engineering (Springer)
12. Journal of Structural Engineering (ASCE)
11. Earthquake Engineering and Engineering Vibration (Springer)
10. Advances in Engineering Software (Elsevier)
9. Ain Shams Engineering (Elsevier)
8. Computer Methods in Applied Mechanics and Engineering (Elsevier)
7. Construction & Building Materials (Elsevier)
6. Earthquakes and Structures (TechnoPress)
5. Earthquake Engineering and Structural Dynamics (Wiley)
4. Engineering Structures (Elsevier)
3. Soil Dynamics and Earthquake Engineering (Elsevier)
2. Structural Engineering and Mechanics (TechnoPress)
1. Structural and Multidisciplinary Optimization (Springer)

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***Other***

Assessing and classifying the best 13 theses on computational mechanics from all Civil Engineering Departments in Greece in order to select and award the 3 best theses overall that had been submitted in Greece in the academic year 2004-05.

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**Member of Scientific Journal Editorial Boards**

**Computational Methods in Structural Engineering**

An International Scientific Journal that focuses on numerical methods and computational mechanics in the broader field of structural engineering. Frontiers in Built Environment, ISSN: 2297-3362.

<https://www.frontiersin.org/journals/built-environment/sections/computational-methods-in-structural-engineering>

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**Earthquakes & Structures**

An International Scientific Journal that focuses on the effects of earthquakes on civil engineering structures. Techno Press. ISSN:2092-7614(Print), ISSN:2092-7622(Online)

<http://technopress.kaist.ac.kr/?journal=eas#>

**Buildings**

Buildings is an international, scientific, peer-reviewed, open access journal on building science, building engineering and architecture published monthly online by MDPI. ISSN: 2075-5309

<https://www.mdpi.com/journal/buildings>

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**Participation in other funded projects**

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*“Earthquake consequences treatment on the built environment”*

Network of interstate collaboration between Greece and Cyprus 2005-07

Principal investigator for the Computational Seismic Mechanics aspect of the project.

**Participation in funded projects prior to joining the UCY**

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*Simulation of Multibody Systems* 1996-2001

Development of discrete element software.

Intelligent Engineering Systems Lab, MIT.

Partially sponsored by Sandia National Labs, NM.

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*Development of Java Software Applications* 1999

High Performance Structures Group, MIT.

Project sponsored by the CEE Department of MIT for the development of an integrated and interactive learning computing environment that teaches structural behavior to undergraduate and graduate students in Civil Engineering (<http://moment.mit.edu>).

*Structural Assessment and Reliability of R/C Structures Under Seismic Loads*

1992-93

Research project for studying the nonlinear behavior of reinforced concrete under cyclic loading.

Sponsored by the European Community, University of Patras, Greece.

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***Academic and Research Advising of Students***

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***Graduated Ph.D. Students (supervised)***

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[Dr. Panayiotis Polycarpou](#)

*January 2006 - August 2009*

Ph.D. Thesis: “*Investigation of Earthquake-Induced Poundings of Seismically Isolated Buildings*”.

The **second** Ph.D. awarded by the CEED and the **second** Ph.D. ever awarded in Civil Engineering in Cyprus.

Currently an Associate Professor and Programme Coordinator of the Civil & Environmental Engineering at the University of Nicosia.

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[Dr. Loizos Papaloizou](#)

*September 2005 - June 2009*

Ph.D. Thesis: “*Investigation of the response and behavior of ancient columns and colonnades during strong seismic excitations using the discrete element method*”.

The **First** Ph.D. awarded by the CEED and **first** Ph.D. awarded in Civil Eng. in Cyprus.

Currently a full-time faculty member of the Department of Engineering of the University of Nicosia.

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*Dr. Eftychia Mavronicola*

*September 2009 - June 2017*

Ph.D. Thesis: “*Nonlinear modeling considerations on the seismic response of base isolated buildings: 2D and 3D investigations of pounding*”

Completed her studies as the best overall graduating Ph.D. student at the University of Cyprus in 2017. Having served as an Executive Engineer at Audit Office of the Republic of Cyprus, currently an engineer in the Public Works Department.

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**Graduated M.Sc. Students**

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*Andreas Georgiou*

*September 2018 - May 2022*

Thesis: “*Utilization of the SAP2000 OAPI to perform parametric analyses of buildings with torsional effects under seismic excitations with varying incidence angles*”

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*Christos Anastasiou*

*September 2019 - May 2022*

Thesis: “*Investigation of the effect of soil deformability on the peak seismic response of conventional and base-isolated buildings through SAP2000 OAPI parametric analyses*”

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*Constantina Pavlidou*

*September 2015 - June 2019*

Thesis: “*Peak seismic response of base-isolated buildings: under near vs. far fault excitations and varying incidence angle*”

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*Georgia Eleni*

*September 2014 - January 2016*

Thesis: “*Seismic response of base isolated buildings under near-fault ground motions at varying excitation angles*”

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*Varnavas Varnava*

*September 2010 - June 2012*

Thesis: “*Modeling, analysis and design of a seismically isolated steel building*”

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*Eftychia Mavronicola*

*September 2007 - June 2009*

Thesis: “*Assessing the suitability of equivalent linear elastic analysis of seismically isolated buildings*”

Awarded by the Research Promotion Foundation of Cyprus among M.Sc.theses.

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*Georgios Pamboris*

*September 2005 – December 2009*

(Co-advising with Asst. Prof. M. C. Phocas)

Thesis: “*Multi-storey structures with compound seismic isolation*”

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**Graduated M.Eng. Students**

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*Eleni Chrysostomou*

*November 2020 - October 2021*

“*Ανάλυση πολυώροφου κτηρίου και καθορισμός της στάθμης επιτελεστικότητας*” (In Greek)

<i>Michalis Stylianou</i>	<i>September 2015 - January 2019</i>
<i>“Επίδραση της γωνίας διέγερσης σεισμικών δράσεων κοντινού πεδίου και εκκεντροτήτων μεταλλικής κατασκευής” (In Greek)</i>	
<i>Yiannis Shialos</i>	<i>September 2016 - June 2019</i>
<i>“Σύγκριση λογισμικών προγραμμάτων ανάλυσης κατασκευών ETABS και FESPA-C”</i>	
<i>Marios Valanides</i>	<i>September 2016 - June 2019</i>
<i>“Μελέτη εκτίμησης παραδοχών στη μοντελοποίηση πλάκας σκυροδέματος σε μεταλλικό φορέα”</i>	
<i>Panayiotis Andreou</i>	<i>September 2011 - June 2012</i>
<i>“Investigation of the response of a seismically isolated building due to impact of its base with the surrounding moat wall”</i>	
<i>Irene Attouna</i>	<i>September 2010 - June 2011</i>
<i>Thesis: “Analysis, design and technical/financial assessment of a base-isolated steel building”</i>	
<b><i>Ex Post-doctoral Associates</i></b>	
<i>Dr. Loizos Papaloizou</i>	
Research project:	<i>Investigation for the protection of ancient multi-drum columns and colonnades from strong earthquakes</i>
Duration: July 2011 - November 2014	Grant: ~100,000 €
<i>Dr. Panayiotis Polycarpou</i>	
Research project:	<i>3D numerical investigation of earthquake-induced poundings of buildings</i>
Duration: December 2010 - February 2014	Grant: ~150,000 €

## TEACHING

### *Teaching Interests*

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Earthquake-Engineering  
Computer-Aided Structural Analysis & Dynamics  
Software Development for Engineering Applications  
Numerical Analysis and Algorithms in Civil Engineering  
Information Technology for Civil Engineering  
Finite-Element Methods  
Seismic Isolation  
Introduction to Programming

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### *Teaching at the University of Cyprus*

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#### *Undergraduate Courses*

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**CEE 100: Introduction to Civil and Environmental Engineering** *Fall 2003*

Series of lectures within CEE100 on the utilization of computing and information technology in engineering, teaching the very basics of computing, numerical methods, algorithms and programming using Matlab. (Co-teaching)

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**CEE 199: Introduction to Engineering Programming** *Fall 2022 -  
Fall 2024*

Course website: <https://www.eng.ucy.ac.cy/petros/Courses/CEE199/>

Description: Introduction to scientific computing in CEE using Matlab, Plotting graphs using Matlab, Introduction to programming using Matlab for CEE, Using data files and M-files (scripts and function files) with Matlab in CEE. Introduction to C++, basic elements of C++, Compilation, linking & running C++ programs, Using an Integrated Development Environment (IDE) to develop C++ programs, More advanced C++ features and functionalities, Control structures, Arrays, Strings, Input/Output in C++, Functions (provided and user-defined), References & Pointers, User-defined data types (structures, classes and objects) and their usage in CEE, A brief introduction to the Unified Modeling Language (UML), Declaring and defining classes, Creating and using objects, Data members and member functions, Constructors and destructors, Member protection, Static class members, Class scope,

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Operator overloading, Friend functions, Type conversions. Object oriented programming (composition, inheritance, polymorphism). Multiple inheritance, Constructors and destructors of derived classes, Redefining member functions, Virtual functions and polymorphism. Utilizing OOP in CEE applications.

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***CEE 220: Structural analysis I***

*Fall 2004*

Course website: <https://www.eng.ucy.ac.cy/petros/Courses/CEE220>

Description: Introductory course to structural analysis. Types of structures, supports and loads. Equations of equilibrium. Statically determinate structures. Axial and shear force diagrams. Bending and torsional moments diagrams. Internal stresses. Trusses, frames and mixed-type structures. Statically indeterminate structures. Deformations of statically determinate framed structures. Principle of virtual work. Classical methods of analysis of statically indeterminate structures, with emphasis on the methods of consistent deformations. Temperature effects. Settlements of supports. Elastic supports. Symmetric structures. Influence lines.

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***CEE 221: Matrix Structural Analysis***

*Spring terms  
2005-2023*

Course website: <https://www.eng.ucy.ac.cy/petros/Courses/CEE221>

Description: Structural analysis course on modern analysis methods using matrices. Flexibility and the stiffness methods, with emphasis on the utilization of computing in the analysis of structures. Analysis of linear elastic structural systems by matrix methods. Direct stiffness approach. Member-end force and displacement matrices. Stiffness matrices of truss and beam elements. Transformation matrices. Local and global coordinate systems. Determination of structure's stiffness matrix. Evaluation of nodal displacements and member-end forces and moments. Elements with variable cross section and rigid off-sets. Inclined supports. Static condensation. Method of substructures. Introduction to software implementation of the direct stiffness methods using Matlab.

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***CEE 320: Structural Dynamics***

*Fall 2005*

Course website: <https://www.eng.ucy.ac.cy/petros/Courses/CEE320>

Description: Major structural dynamics course focusing on the seismic analysis of single and multi degree-of-freedom (DOF) systems, both analytically and numerically. Dynamic loads. Free and forced vibrations of single DOF systems. Damping. Eigenfrequencies and eigenmodes. Dynamic analysis of multi DOF systems. Seismic response of single and multi DOF structures. Modal analysis and numerical integration of the equations of motion. Dynamics of multi-story buildings. Response and design spectra. Software implementation of dynamic analysis methods and computer-aided dynamic analysis.

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**CEE 325: Computer-Aided Structural Analysis**

Spring terms  
2005-2024

Course website: <https://www.eng.ucy.ac.cy/petros/Courses/CEE325>

Description: Computer-aided structural analysis with emphasis on earthquake excitations and structural simulations. Utilization of modern specialized structural analysis software. Programming basic structural analysis methods. Introduction to seismic isolation. Analysis and design of earthquake-resistant structures. Term project using a structural analysis software, such as GT-Strudl and SAP2000.

Including shake table experiments with SDOF and MDOF systems:

[https://www.eng.ucy.ac.cy/petros/Courses/CEE325/SDOF\\_Experiments.pdf](https://www.eng.ucy.ac.cy/petros/Courses/CEE325/SDOF_Experiments.pdf)  
[https://www.eng.ucy.ac.cy/petros/Courses/CEE325/MDOF\\_Experiments.pdf](https://www.eng.ucy.ac.cy/petros/Courses/CEE325/MDOF_Experiments.pdf)

And, a term project: Complete static and dynamics 3D analysis of a multistory building under an earthquake excitation using both response spectrum analysis and time history analysis, with modal and direct integration methods.

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**CEE 401: Software Development for Engineering Applications**

Fall Terms:  
2006, 2008,  
2011, 2012,  
2014, 2016,  
2018-2020  
Spring Terms:  
2024

Course website: [https://www.eng.ucy.ac.cy/petros/Courses/CEE401\\_500/](https://www.eng.ucy.ac.cy/petros/Courses/CEE401_500/)

Description: Engineering problem-solving with computers, numerical methods and algorithms. Programming of numerical methods and algorithms. Design and development of object-oriented software using a modern OOP language. Introduction to DBS, graphical user interfaces, and computer graphics.

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**CEE 492, CEE 493: Independent Studies  
Introduction to Seismic Isolation**

Fall 2006,  
Spring 2007

Introduction to seismic isolation. Comparison of fixed supported and seismically isolated buildings. Surveying of common isolation systems. Analysis and behavior of seismically isolated buildings.

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**Graduate Courses**

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**CEE 500: Advanced Engineering Software Development**

Spring 2006,  
Fall 2007,  
Fall 2011 &  
Fall 2012  
Spring Terms:  
2024

Course website: [https://www.eng.ucy.ac.cy/petros/Courses/CEE401\\_500/](https://www.eng.ucy.ac.cy/petros/Courses/CEE401_500/)

Description: Utilization of advanced software design and development methodologies for engineering applications using Matlab and a modern Object-Oriented Programming language, such as C++, Java, or/and C#. Graphical user interfaces, computer graphics, databases, internet technologies, and multithreading. Software development models and design patterns.

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***CEE 501: Advanced Computer-Aided Structural Analysis***

*Fall Terms:  
2006, 2008,  
2011, 2012,  
2014, 2016,  
2018-2020,  
2022*

Course website: <https://www.eng.ucy.ac.cy/petros/Courses/CEE501>

Description: Advanced topics of structural analysis and dynamics with emphasis on earthquake engineering analysis and simulations. Shake table experiments with SDOF and MDOF systems vs. numerical simulations. Implementation of structural static and dynamic analysis methods. Introduction to finite element methods. Utilization of modern engineering software applications for simulations of structural systems under static and dynamic loads. Seismic isolation. Special research projects in structural dynamics and earthquake engineering.

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***CEE650: Independent Studies: Utilization of modern software development methodologies in civil engineering***

*Fall 2005*

Introduction to modern programming and software design technologies, and utilization of computing and information technology in Civil Engineering applications.

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***CEE650: Independent Studies: Introduction to seismic isolation as an earthquake-resistant design approach***

*Spring 2006*

Introduction to seismic isolation, covering the fundamental principles of this innovative earthquake-resistant technology, the most commonly used seismic isolation devices, practical application and considerations, analysis and behavior of seismically isolated buildings.

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***Introduction to Matlab***

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UCY – Crash course offered to undergraduate and graduate students of the UCY

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***Previous Teaching Experience (as a teaching assistant) at MIT***

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***1.124J - Foundations of Software Engineering (revised)***

Graduate Course offered in the Fall semesters of 1998, 1999 and 2000.

High-level institute-wide graduate course (offered by CEED) on modern, component-based, object-oriented software design and development for engineering using C++ and Java. Data structures and algorithms for engineering modeling, analysis, and visualization and internet computing.

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***1.00 - Introduction to Computers and Engineering Problem Solving (revised)***

Undergraduate course offered in the Spring semesters of 1998, 2000, and 2001.

Undergraduate institute-wide course in MIT (offered by the CEED) on software development and computational methods for engineering and scientific applications using object-oriented software design and development (C++), algorithms, and numerical analysis.

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***1.124J - Computer-Aided Engineering***

Graduate course offered in the Fall semesters of 1996, and 1997.

High-level institute-wide graduate course in MIT (offered by the CEE Department) on modern software design and development techniques for engineering using C++, Tcl/Tk, sorting and searching algorithms, and numerical simulation techniques in engineering.

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***1.00 - Introduction to Computers and Engineering Problem Solving***

Undergraduate course offered in the Spring semesters of 1994, and 1995.

Undergraduate institute-wide programming course in MIT (offered by the CEE Department) on introduction to structured programming using C, algorithms, and numerical analysis.

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## ADMINISTRATIVE WORK AT THE UNIVERSITY OF CYPRUS

### *Development of the CEED Programs of Studies*

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Chiefly responsible for the major restructuring and improvement of the Undergraduate Program of Studies of the CEED to be compatible with professional engineering practice, while adopting the ECTS system according to the Bologna Declaration.

2003-05

(English version: 19 pages – Greek version: 19 pages)

Chiefly responsible for the complete development, promotion and approval by the relevant committees, of the Graduate Program of Studies of the CEED, both for Master of Science and Ph.D. levels, based on the ECTS system and the Bologna Declaration.

2003-05

(English version: 22 pages – Greek version: 23 pages)

Responsible for the restructuring and approval of the graduate studies programs (28-29 pages) in Civil Engineering with the introduction of 5 distinct specializations (Earthquake Engineering, Structural Analysis, Novel and Traditional Building Materials, Geotechnical Engineering, Construction and Transport Infrastructure Management)

2014-2015

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### *Participation in University Committees*

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Member of the Senate Committee for Graduate Studies of the University of Cyprus representing the School of Engineering.

2004-05

Member of the Graduate School Council

2014-2015

2022-today

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### *Participation in School of Engineering Committees*

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Member of the interim (unofficial) School of Engineering Council.

2003-04

Member of the interim (unofficial) School of Engineering Council.

2020-2021

2024-today

Member of the IT Committee of the School of Engineering.

2003-05

2023-today

Member of the Undergraduate Studies Committee of the School of Engineering.	2003-05
Member of the Graduate Studies Committee of the School of Engineering.	2003-05

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***Participation in CEE Department Committees***

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CEED Undergraduate Studies Coordinator	2003-05
CEED Graduate Studies Coordinator	2003-05 2014-15 2022-today
CEED Information Technology and Computing Coordinator	2003-05 2016-today
CEED Library Coordinator	2003-05
Member of the Information Technology Committee of the CEED	2005-06
Member of the Undergraduate Studies Committee of the CEED	2005-06
Member of the Graduate Studies Committee of the CEED	2005-09 2013-14 2017-today
Member of the Graduate Studies Committee of the CEED	2013-today
Member of the Information Technology Committee of the CEED	2013-today

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***Other Responsibilities/Assignments in the CEE Department***

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Reviewing of applications and admissions of graduate students.	2003-05, 2013-today
Reviewing of applications and admissions of special cases of undergraduate students.	2003-05
Development of the schedule of classes and the room reservations for undergraduate and graduate courses.	2003-05
Maintaining and organizing the web-site of the CEED.	2003-06
Development of promoting material for the CEED.	2003-05
Editing and proofreading of the section of the University's Postgraduate Prospectus that describes the CEED.	2003-05
Editing and proofreading of the section of the University's Undergraduate Prospectus that describes the CEED.	2003-05

Evaluating, selecting and ordering to the library, according to the available budget of the CEED, of about 1,500 different titles of Civil and Environmental Engineering books.	2003-05
Evaluating and selecting engineering software (structural analysis, design, FEM, etc.) that has been ordered and installed in the CEED.	2003-05
Member and coordinator of the committee for selecting the teaching assistants for the CEED	2013-2015 2021-today
Member and coordinator of the committee for selecting the special scientists for the CEED	2021-today
Member of the Special (Evaluation) Committee for an Academic post in the area of Reinforced Concrete Structures	2018-19
Member of the Special (Evaluation) Committee for an Academic post in the area of Coastal Engineering	2019-20
Head of the Special (Evaluation) Committee for an Academic post in the area of Steel Structures	2019-20
Member of the Special Committee for a promotion in CEED	2023-today
Coordinator of the multi-million project to acquire and install a state-of-the-art 2D 30 (tons payload) shake-table at the UCY	2019-today
Coordinator of the CEED Graduate Studies Committee	2015-2016 2021-today
Member of the Graduate School Council	2015-2016 2021-today
Deputy Head of the CEED	2020-2021 2023-today

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