Dr. John Bellos

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Dr. Bellos is an Associate Professor of Structural Design and Construction Technology at School of Architecture, Engineering, Land and Environmental Sciences at Neapolis University Pafos (since 2018), director of the Civil Engineering programme (since 2017) and Head of the Department of Engineering (since 2018). He has also served the Neapolis University as an Assistant Professor (2010-2017), while he has been the director of Information and Learning Services of the Institution for more than four years (2009-2013) and has participated in the development of its overall University's technological infrastructure. Dr. Bellos has a Ph.D. in Structural Engineering (1989) and an MSc in Mechanical Engineering (1986) from S.U.N.Y. at Buffalo, USA, and a BSc in Naval Architecture & Mechanical Engineering from National Technical University of Athens, Greece (1984). Dr. Bellos has several publications in his fields of research and has participated in several International Conferences on both sides of the Atlantic. Furthermore, with over 20 years of experience, he is an expert on the structural design of Reinforced Concrete Buildings complying with local and international Building Regulations.

RESEARCH INTERESTS

Dr. Bellos' research has focused on Structural Dynamics and Control, Computational Mechanics, Mathematical Modeling, Model Verification, Parameter Identification, Seismic Design, and Optimal Structural Design. He also studies issues of Soil Mechanics, Building Information Modelling (BIM), Finite Element Modeling and Analysis, Building Regulations, Eurocodes, Efficient Energy Building Design.

EUROPEAN RESEARCH PROJECTS

The Research Fund for Coal and Steel (RFCS): Project PROINDUSTRY - "Seismic PROtection of INDUSTRial plants by enhanced steel based sYstems".

GRANTS & AWARDS

- Papastavridios Award, NTUA (1978-1983, given to the best students of each Academic Year).
- Research Foundation, Mechanical & Aerospace Engineering Department, SUNY at Buffalo (1984-1985).
- National Science Foundation, NASA, United States Air Force, Office of Scientific Research (1985-1989).

SCIENTIFIC AND PROFESSIONAL BODIES AND NETWORKS

- Member of Technical Chamber of Greece (TEE).
- Member of Technical Chamber of Cyprus (ETEK).
- Member of American Society of Mechanical Engineers (ASME).
- Member of Research and Innovation Committee of Technical Chamber of Cyprus.
- Member of Cyprus Health and Safety Expert Committee in Construction Sector.
- Member of Cyprus National Expert Committee (for New Green Jobs and Skills).
- Scientific Expert for Certifying Energy Performance of Buildings in Cyprus.

SELECTED PUBLICATIONS

Monographs

1. Κωνσταντινίδης, Α. και Μπέλλος Ι. (2012). *Αντισεισμικά Κτίρια από Οπλισμένο Σκυρόδεμα: Στατική και Δυναμική Ανάλυση σύμφωνα με τους Ευρωκώδικες*. Τόμος Β, Αθήνα, Alta Grafico SA., ISBN: 978-960-85506-0-5.
2. Konstantinides, A. and Bellos, J. (2013). *Earthquake Resistant Buildings made of Reinforced Concrete: Static and Dynamic Analysis according to Eurocodes*. Volume B, Athens, Alta Grafico SA., ISBN: 978-960-85506-4-3.
3. Konstantinides, A. and Bellos, J. (2018). *Earthquake Resistant Buildings made of Reinforced Concrete: Bidirectional Bending Analysis according to Eurocodes*. Volume C (under review – to be published in May 2018).

Papers in Peer Review Journals

1. Bellos, J. and Inman, D.J. (1989). Nature of Coupling in Non-conservative Lumped Parameter Systems. *Journal of Guidance, Control, and Dynamics*, 12(5), pp.751-753, DOI:10.2514/3.20471.
2. Bellos, J. and Inman, D.J. (1989). A Survey On Nonproportional Damping. *The Shock and Vibration Digest*, 21(10), pp.7-12, DOI:10.1177/058310248902101004.
3. Bellos, J. and Inman, D.J. (1990). Frequency Response of Nonproportionally Damped, Lumped Parameter, Linear Dynamic Systems. *Journal of Vibration and Acoustics*, 112(2), pp. 194-201, DOI:10.1115/1.2930112.
4. Bellos, J. and Bakas, N. (2017). Complete Analytical Solution for Linear Soil Pressure Distribution under Rigid Rectangular Spread Footings. *International Journal of Geomechanics*, 17(7)*, DOI:10.1061/(ASCE)GM.1943-5622.0000874*.
5. Bellos, J., Inman, D.J. and Bakas, N. (2017). Nature of Coupling in Non-conservative Distributed Parameter Systems Attached to External Damping Sources*, Mathematics and Mechanics of Solids, p.108128651771402, DOI:10.1177/1081286517714022.*
6. Bellos, J. and Inman, D.J (2017). Modal Analysis of Non-conservative Combined Dynamic Systems*, Journal of Sound and Vibration - Elsevier (submitted – currently under review).*

Proceedings in Scientific Conferences

1. Bellos, J. and Inman, D.J. (1988). Lumped Systems with Non-proportional Damping. *Proceedings of the 6th International Modal Analysis Conference*, 2, pp. 876-882, Kissimmee, Florida, DOI:10.13140/RG.2.1.1442.3526.
2. Inman, D.J., Umland J.W. and Bellos, J. (1990). Controlling Flexible Structures with second order Actuator Dynamics. *Proceedings of the 3rd Annual Conference on Aerospace Computational Control, NASA, Jet Propulsion Laboratory, California Institute of Technology*, 2, pp. 879-890, Pasadena, DOI:10.13140/RG.2.1.4445.2008.
3. Papazoglou, V.J., Bellos J. and Katsaounis G. (1991). Noise and Vibration study for the Hellenic Navy Offshore Patrol Vessels. *Shipbuilding Technology Laboratory*, *NTUA*, DOI:10.13140/RG.2.1.4872.7766.
4. Bellos, J. (2012). Virtual Reality as a Decision Making Tool in Construction Management. *Proceedings of the 8th European Conference on Management Leadership and Governance*, pp. 30-38, Cyprus, DOI:10.13140/RG.2.1.1168.4007.
5. Bellos, J. and Bakas, N. (2013). Torsional design criteria in building codes and comparison with more accurate modeling using structural optimization tools. *Proceedings of the 4th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Greece, DOI:10.13140/RG.2.1.2348.0488.
6. Castiglioni, C.A., Kanyilmaz, A. and Bellos, J. (2015). Simplified Numerical Modeling of Elevated Silos for Nonlinear Dynamic Analysis. *Proceedings of the XXV Congresso C.T.A.*, Salerno, Italy.
7. Bakas, N., Bellos, J., Kanyilmaz, A. and Makridakis, S. (2016). Regression Analysis vs Genetic Algorithms: Computational Efficiency Assessment on the Design of PROINDUSTRY Project SSDC Isolators under Incremental Dynamic Loading. *Proceeding of VII European Congress on Computational Methods in Applied Sciences and Engineering*, Crete, Greece.
8. Bellos, J. and Bakas, N. (2016). High Computational Efficiency through Generic Analytical Formulation for Linear Soil Pressure Distribution of Rigid Spread Rectangular Footings. *Proceeding of VII European Congress on Computational Methods in Applied Sciences and Engineering*, Crete, Greece, DOI:10.13140/RG.2.1.3444.9526.
9. Bellos, J., Bakas, N. and Castiglioni C. (2017). Numerical Aspects of Incremental Dynamic Analysis for Retrofitting Existing Industrial Steel Building Utilizing SSCD Dampers. *Proceeding of the 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Rhodes, Greece.
10. Bakas, N. and Bellos, J. (2017). Theoretical and Numerical Findings on the Redundant Torsional Stresses. *Proceeding of the 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Rhodes, Greece.
11. Plevris, V., Bakas, N., Markesetand, G. and Bellos, J. (2017). Literature Review of Masonry Structures under Earthquake Excitation Utilizing Machine Learning Algorithms. *Proceeding of the 6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Rhodes, Greece.
12. Bellos, J., Bakas, N. and Bellos V. (2017). Seismic Performance of Industrial Plant Retrofitted with Steel Self-Centering Devices (SSCD). *INNOSEIS – Valorization of Anti-seismic Devices*, Pafos, Cyprus.