

Ilias (Elias) DIMITRAKOPOULOS

Curriculum Vitae

Department of Civil and Environmental Engineering
The Hong Kong University of Science and Technology (HKUST)
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[Google Scholar](#) | [ORCID](#) | [ResearchGate](#) | [Scopus](#) | [Web of Science](#)

EDUCATION

Doctor of Philosophy

2004 - 2009

Aristotle University of Thessaloniki (AUTH), Greece

Polytechnic School-Civil Engineering Department

Thesis: *Seismic Response Analysis of Concrete Bridges with Unilateral Contact Phenomena*

Advisors: Prof. Andreas J. KAPPOS, Prof. Nicos MAKRIS

M.Sc. Civil Engineering

2002 - 2003

Aristotle University of Thessaloniki, Greece

Polytechnic School-Civil Engineering Department

Specialization: Seismic Design of Structures and Engineering Seismology

Diploma in Civil Engineering

1996 - 2002

Aristotle University of Thessaloniki, Greece

Polytechnic School-Civil Engineering Department

5 year-program, Major: Structural engineering

EMPLOYMENT

Professor

2024 - present

HKUST, Dept of Civil and Environmental Engineering

Associate Professor

2017 - 2024

HKUST, Dept of Civil and Environmental Engineering

Assistant Professor

2011 - 2017

HKUST, Dept of Civil and Environmental Engineering

Post-Doctoral Researcher (Research Associate)

2010 - 2011

University of Cambridge, UK

Engineering Department, Structures Group

Visiting Researcher

2005

Centre of Post-Graduate Training and Research in Earthquake Engineering and Engineering Seismology

Rose School, Pavia, Italy

AWARDS AND HONORS

- Honorary Visiting Professor** 2024
 Madan Bhandari University of Science and Technology (MBUST), Nepal
 September 2024
- Stan Shaw Best Paper Award** 2023
 ACMSM26 (26th Australasian Conference on the Mechanics of Structures and Materials)
 Auckland, New Zealand, December 3-6, 2023
For paper “The effect of single and bimodulus material behavior on longitudinal compression failure of bamboo culms under flexure” [C62] (most prestigious award of the conference)
- Grand Award (Excellence Award 2021) in R&D Award Category** 2021
 Hong Kong Institution of Engineers, Structural Division
For publication: Stoura CD, Dimitrakopoulos EG (2020) “MDOF Extension of the Modified Bridge System method for vehicle-bridge interaction”, Nonlinear Dynamics [J33]*
- Most Read Paper in Journal of Structural Engineering (ASCE)** 2021
Pradhan & Dimitrakopoulos JoSE (2021) [J36] paper was one of the most read in the Journal of Structural Engineering (ASCE)
- Finalist of Structural Excellence Award 2019** 2019
 Hong Kong Institution of Engineers, Structural Division and the Institution of Structural Engineers (Joint Structural Division, JSD)
For publication: Giouvanidis AI, Dimitrakopoulos EG (2018) “Rocking amplification and strong-motion duration” Earthquake Engineering and Structural Dynamics [J26]
- Commendation Merit R&D Structural Excellence Award 2017** 2017
 HKIE - the Structural Division and the Institution of Structural Engineers (Joint Structural Division, JSD)
For publication: Zeng Q, Dimitrakopoulos EG (2016) “Seismic Response Analysis of an Interacting Curved Bridge-Train System Under Frequent Earthquakes” Earthquake Engineering and Structural Dynamics [J16]
- Marie Curie Fellow** 2005
 Grant: HPMT-GH-01-00359-16, Fall 2005

FUNDED RESEARCH PROJECTS

AS PRINCIPAL INVESTIGATOR

10. **RGC 16205325** (General Research Fund) | Period: 2026-2029 | Duration: 36 months
Rocking Overturning: Correlation and Causality
 Budget: 1,122,000 HKD

9. **RGC 16212522** (General Research Fund) | Period: 2022-2025 | Duration: 36 months
Traversing Vehicles as Health Diagnostic Tools for Bridges
 Budget: 731,000 HKD

8. **RGC 16213321** (General Research Fund) | Period: 2021-2024 | Duration: 36 months
Multi-culm Bamboo Structural Members
 Budget: 911,000 HKD

7. **HKUST Sponsorship Scheme for Targeted Strategic Partnerships (SSTSP)** | 2019-03-29 to 2021-03-28
Identification of Dynamic Characteristics of Bridges using Robotic Vehicles
 PIs: Elias DIMITRAKOPOULOS, Lambros KATAFYGIOTIS, Prof Sriram NARASIMHAN (Univ. of Waterloo)
 Budget: 90,000 HKD

6. **RGC 16244116** (General Research Fund) | Period: 2016-2019 | Duration: 36 months
Reliability of Coupled High-Speed Trains and Bridges Under Earthquakes
 Budget: 675,000 HKD

5. **HKUST25Projects** | 2016-2017 | Duration: 12 months
Low-cost High-impact Pedestrian Bamboo Bridges
 Crowdfunding: 55,000 HKD
 URL: <http://hkust25projects.ust.hk/info/>

4. **UGC Direct Allocation Grant** | 2014-11 to 2016-10
A hybrid seismic analysis framework for bridges with joints
 Budget: 50,000 HKD

3. **RGC 639613** (Early Career Scheme) | Period: 2014-2016 | Duration: 36 months
Seismic Behaviour of Segmental Bridge Bents Rocking on a Rigid Base
 Budget: 790,000 HKD

2. **UGC Direct Allocation Grant** | 2012-06 to 2014-05
Seismic Isolation of Bridges
 Budget: 50,000 HKD

1. **UGC Direct Allocation Grant** | 2012-06 to 2013-05
A novel non-smooth approach for the seismic response analysis of skew bridges with in-deck joints
 Budget: 100,000 HKD

AS CO-INVESTIGATOR

3. RIG-2023-006

An Innovative system for the control of dynamic response of bridges

Funder: Khalifa University

Start date: 2023-09-01, Duration: 30 months

PI: Professor Andreas KAPPOS

Budget (to CoI Dimitrakopoulos): 390,000 HKD

2. Construction Industry Council - Explorative Project Scheme (CIC EPS)

Automated BIM-based Clash-free Rebar Design for Reinforced Concrete Components with Extended Types and Irregular Shapes

PI: Professor CHENG, Jack CP (HKUST)

Duration: 24 months

Budget: 1,687,000 HKD (No budget allocated to CoI Dimitrakopoulos)

1. RGC Theme-based Research Scheme | Period: 2015-2020 | Duration: 60 months

Smart Urban Water Supply System (Smart UWSS): Developing a Sustainable Environment

Project Coordinator: Chair Professor GHIDAUI Mohamed S. (Civil and Environmental Engineering, HKUST)

Total Budget: 33,225,000 HKD

Budget for Fluid-Structure Interaction task: 1,200,000 HKD

OTHER FUNDING AS PI OR AS RESEARCH SUPERVISOR

7. Research supervisor for Hong Kong PhD Fellowship Scheme (2024/25 , 36 months)

Student: Mr. Giorgio Armand Manzanilla ROBEL (PF23-94466)

Budget: 1,000,000 HKD

6. Contract Research as PI (2024, 2 months)

Masonry Wall Compression Tests

Budget: 170,000 HKD

5. Contract Research as PI (2021, 3 months)

Conventional Material Strength Tests on Two Species of Bamboo

Budget: 216,000 HKD

4. Research supervisor for Hong Kong PhD Fellowship Scheme (2017/18, 36 months)

Student: Ms. Charikleia STOURA (PF16-07238)

Budget: 750,000 HKD

3. Research supervisor for Post-Doctoral Fellowship (PDF) Matching Fund (2017-2018)

Researcher: Dr. Qing ZENG

Budget: 162,000 HKD

2. Research supervisor for Hong Kong PhD Fellowship Scheme (2016/17, 36 months)

Student: Mr. Cheng Ning LOONG (co-supervised with Prof. CC Chang)

Budget: 750,000 HKD

1. Research supervisor for Post-Doctoral Fellowship (PDF) Matching Fund (2014-2015)

Researcher: Dr. Themelina PARASKEVA

Budget: 162,000 HKD

RESEARCH PUBLICATIONS

RESEARCH INTERESTS

(nonlinear) structural dynamics; Vehicle-Bridge dynamic Interaction; bamboo structures and bamboo engineering; non-smooth dynamics with unilateral contact; earthquake engineering & structural dynamics; dimensional analysis

CITATION METRICS

My research has been recognized among the top 2% of researchers globally for career-long citations through 2023, and consistently ranked in the top 2% annually from 2019 to 2023 (latest available data), according to the Stanford composite indicator of standardized citation metrics (Ioannidis et al. 2020, 2021, 2022, 2023, 2024) published in PLOS Biology.

As of February 20, 2026:

Source	Citations	h-index	i10-index
Google Scholar:	3473	31	49
Scopus:	2723	29	48
Web of Science:	2119	27	47

JOURNAL PUBLICATIONS (SELECTED)

- [J58] *Loong CN, Dimitrakopoulos EG** “Stability evolution in triangular fractals: an algebraic dynamical system approach” *Proceedings of the Royal Society A*, DOI: 10.1098/rspa.2025.1061
- [J57] *Khodabakhshi N, Mouka Th, Dimitrakopoulos EG** , Trujillo D, Khaloo A (2026). “Analytical and experimental investigations on failure of bamboo culms in bending: Effects of shear-tension interaction and bimodulus material behavior.” *Engineering Structures (Elsevier)*, 353(B), 122328. DOI: 10.1016/j.engstruct.2026.122328
- [J56] *Chu KWS, Giouvanidis AI, Loong CN, Dimitrakopoulos EG** (2025). “New perspectives in causal relationships between the response of a rocking block and intensity measures via ensemble machine learning methodologies.” *Earthquake Engineering and Structural Dynamics (Wiley)*. DOI: 10.1002/eqe.70042
- [J55] *Loong CN, Dimitrakopoulos EG** (2025). “The static stability of evolving fractal beams as a dynamical system.” *Proceedings of the Royal Society A*, 481, 20240918. DOI: 10.1098/rspa.2024.0918
- [J54] *Khodabakhshi N, Chu KWS, Mouka Th, Kum KH, Dimitrakopoulos EG** (2025). “Stiffness characterization of bolted multi-culm bamboo members.” *Journal of Building Engineering (Elsevier)*, 103, 112080. DOI: 10.1016/j.jobe.2025.112080
- [J53] *Loong CN, Dimitrakopoulos EG* (2025). “Recursive modal properties of fractal monopodial trees, from finite to infinite order.” *Journal of Sound and Vibration (Elsevier)*, 595, 118770. DOI: 10.1016/j.jsv.2024.118770
- [J52] *Siu HM, Filippitzis F, Stoura CD, Papadimitriou C, Dimitrakopoulos EG** (2024). “Utilizing On-board Sensing of Passing Train Vehicles for Virtual Sensing of Bridges.” *Engineering Structures (Elsevier)*, 319, 118808. DOI: 10.1016/j.engstruct.2024.118808
- [J51] *Homaei H, Stoura CD, Dimitrakopoulos EG** (2024). “Extended Modified Bridge System (EMBS) method for seismic vehicle–bridge interaction.” *Earthquake Engineering and Structural Dynamics (Wiley)*. DOI: 10.1002/eqe.4209
- [J50] *Loong CN**, *Siu HM, Dimitrakopoulos EG* (2024). “Modal properties of fractal trees as recursive analytical solutions.” *Journal of Sound and Vibration (Elsevier)*, 572, 118164. DOI: 10.1016/j.jsv.2023.118164
- [J49] *Homaei H, Dimitrakopoulos EG**, Bakhshi A (2023). “Vehicle-bridge Interaction and the Tuned-Mass Damper effect on bridges during vertical earthquake excitation.” *Acta Mechanica (Springer)*, 235, 1379-1394. DOI: 10.1007/s00707-023-03533-2
- [J48] *Loong CN, Dimitrakopoulos EG*, Chang CC (2023). “Nonlinear electromagnetic harvester-structure system under seismic excitation: vibration mitigation and energy scavenging.” *Journal of Engineering Mechanics (ASCE)*, 149(9), 04023058. DOI: 10.1061/JENMDT.EMENG-7107
- [J47] *Lachanas CG, Vamvatsikos D, Dimitrakopoulos EG* (2023). “Intensity measures as interface variables versus response proxies: the case of rigid rocking blocks.” *Earthquake Engineering and Structural Dynamics (Wiley)*, 52(6), 1722-1739. DOI: 10.1002/eqe.3838
- [J46] *Loong CN**, *Dimitrakopoulos EG* (2023). “Modal properties of fractal sympodial trees: insights and analytical solutions using a group tree modeling approach.” *Applied Mathematical Modelling (Elsevier)*, 115, 127–147. DOI: 10.1016/j.apm.2022.10.048
- [J45] *Lachanas CG, Vamvatsikos D, Dimitrakopoulos EG* (2023). “Statistical property parameterization of simple rocking block response.” *Earthquake Engineering and Structural Dynamics (Wiley)*, 52, 394–414. DOI: 10.1002/eqe.3765
- [J44] *Mouka Th, Dimitrakopoulos EG** , Lorenzo R (2022). “Effect of a longitudinal crack on the flexural performance of bamboo culms.” *Acta Mechanica (Springer)*, 233, 3777–3793. DOI: 10.1007/s00707-022-03314-3

(*) = Corresponding author. Co-authors under my supervision: (PhD student) ; (Postdoctoral researcher) ; (MSc student) ; (UG student).

- [J43] Mouka Th, **Dimitrakopoulos EG*** (2022). "Prediction of bamboo culm embedment properties parallel to grain via dimensional analysis." *Construction & Building Materials (Elsevier)*, 347, 128434. DOI: 10.1016/j.conbuildmat.2022.128434
- [J42] Giouvanidis AI*, **Dimitrakopoulos EG**, Lourenço PB (2022). "Chattering: An overlooked peculiarity of rocking motion." *Nonlinear Dynamics (Springer)*, 109, 459-477. DOI: 10.1007/s11071-022-07578-1
- [J41] Mouka Th, **Dimitrakopoulos EG***, Lorenzo R (2022). "Insight into the behavior of bamboo culms subjected to bending." *Journal of the Royal Society Interface*, 19(189), 20210913. DOI: 10.1098/rsif.2021.0913
- [J40] Pradhan NPN, Paraskeva TS, **Dimitrakopoulos EG*** (2022). "Simulation and experimental verification of an original full-scale bamboo truss." *Engineering Structures (Elsevier)*, 256, 113965. DOI: 10.1016/j.engstruct.2022.113965
- [J39] Jin N, Dertimanis VK, Chatzi EN, **Dimitrakopoulos EG***, Katafygiotis L (2022). "Subspace identification of bridge dynamics via traversing vehicle measurements." *Journal of Sound and Vibration (Elsevier)*, 523, 116690. DOI: 10.1016/j.jsv.2021.116690
- [J38] Lorenzo R*, Mimendi L, Yang D, Li H, Mouka Th, **Dimitrakopoulos EG*** (2021). "Non-linear behaviour and failure mechanism of bamboo poles in bending." *Construction & Building Materials (Elsevier)*, 305, 124747. DOI: 10.1016/j.conbuildmat.2021.124747
- [J37] Stoura CD, Paraskevopoulos E, **Dimitrakopoulos EG***, Natsiavas S (2021). "A Dynamic Partitioning Method to solve the vehicle-bridge interaction problem." *Computers & Structures (Elsevier)*, 251, 106547. DOI: 10.1016/j.compstruc.2021.106547
- [J36] Pradhan NPN, **Dimitrakopoulos EG*** (2021). "Pilot study on capacity based design of multi-culm bamboo axial members with dowel-type connections." *Journal of Structural Engineering (ASCE)*, 147(5). DOI: 10.1061/(ASCE)ST.1943-541X.0002995
- [J35] Jin N, Yang YB, **Dimitrakopoulos EG***, Paraskeva TS, Katafygiotis L (2021). "Application of Short-time Stochastic Subspace Identification to Estimate Bridge Frequencies from a Traversing Vehicle." *Engineering Structures (Elsevier)*, 230, 111688. DOI: 10.1016/j.engstruct.2020.111688
- [J34] Mouka Th, **Dimitrakopoulos EG*** (2021). "Simulation of embedment phenomena on bamboo culms via a modified foundation modelling approach." *Construction & Building Materials (Elsevier)*, 275, 122048. DOI: 10.1016/j.conbuildmat.2020.122048
- [J33] Stoura CD, **Dimitrakopoulos EG*** (2020). "MDOF Extension of the Modified Bridge System method for vehicle-bridge interaction." *Nonlinear Dynamics (Springer)*, 102(4), 2103-2123. DOI: 10.1007/s11071-020-06022-6
- [J32] Stoura CD, **Dimitrakopoulos EG*** (2020). "A Modified Bridge System method to characterize and decouple vehicle-bridge interaction." *Acta Mechanica (Springer)*, 231(9), 3825-3845. DOI: 10.1007/s00707-020-02699-3
- [J31] Stoura CD, **Dimitrakopoulos EG*** (2020). "Additional damping effect on bridges because of vehicle-bridge interaction." *Journal of Sound and Vibration (Elsevier)*, 476, 115294. DOI: 10.1016/j.jsv.2020.115294
- [J30] Pradhan NPN, Paraskeva TS, **Dimitrakopoulos EG*** (2020). "Quasi-static reversed cyclic loading testing and characterization of multi-full-culm bamboo to steel connections." *Journal of Building Engineering (Elsevier)*, 27, 100983. DOI: 10.1016/j.jobbe.2019.100983
- [J29] Paraskeva TS, Pradhan NPN, Stoura CD, **Dimitrakopoulos EG*** (2019). "Monotonic loading testing and characterization of new multi-full culm bamboo to steel connections." *Construction & Building Materials (Elsevier)*, 201, 473-483. DOI: 10.1016/j.conbuildmat.2018.12.198

(*) = Corresponding author. Co-authors under my supervision: (PhD student) ; (Postdoctoral researcher) ; (MSc student) ; (UG student).

- [J28] Loong CN, Chang CC*, **Dimitrakopoulos EG** (2018). “Circuit nonlinearity effect on the performance of an electromagnetic energy harvester-structure system.” *Engineering Structures (Elsevier)*, 173, 449-459. DOI: 10.1016/j.engstruct.2018.06.090
- [J27] Zeng Q*, **Dimitrakopoulos EG** (2018). “Vehicle-Bridge Interaction Analysis Modelling Derailment during Earthquakes.” *Nonlinear Dynamics (Springer)*, 93(4), 2315–2337. DOI: 10.1007/s11071-018-4327-6
- [J26] Giouvanidis AI, **Dimitrakopoulos EG*** (2018). “Rocking amplification and strong-motion duration.” *Earthquake Engineering and Structural Dynamics (Wiley)*, 47(15), 2273–2304. DOI: 10.1002/eqe.3058
- [J25] Zeng Q, Stoura CD, **Dimitrakopoulos EG*** (2018). “A Localized Lagrange Multipliers Approach for the Problem of Vehicle-Bridge-Interaction.” *Engineering Structures (Elsevier)*, 168, 82-92. DOI: 10.1016/j.engstruct.2018.04.040
- [J24] Shi Z, **Dimitrakopoulos EG*** (2017). “Comparative evaluation of two simulation approaches of deck-abutment pounding in bridges.” *Engineering Structures (Elsevier)*, 148, 541-551. DOI: 10.1016/j.engstruct.2017.06.077
- [J23] Paraskeva TS*, Grigoropoulos G, **Dimitrakopoulos EG** (2017). “Design and experimental verification of easily constructible bamboo footbridges for rural areas.” *Engineering Structures (Elsevier)*, 143, 540-548. DOI: 10.1016/j.engstruct.2017.04.044
- [J22] Giouvanidis AI, **Dimitrakopoulos EG*** (2017). “Seismic Response of Rocking Bridge Bents with Flag-Shaped Hysteretic Behavior.” *Journal of Engineering Mechanics (ASCE)*, 143(5), 04017008. DOI: 10.1061/(ASCE)EM.1943-7889.0001206
- [J21] Shi Z, **Dimitrakopoulos EG*** (2017). “Nonsmooth Dynamics Prediction of Measured Bridge Response Involving Deck-Abutment Pounding.” *Earthquake Engineering & Structural Dynamics (Wiley)*, 46(9), 1431–1452. DOI: 10.1002/eqe.2863
- [J20] Giouvanidis AI, **Dimitrakopoulos EG*** (2017). “Nonsmooth Dynamic Analysis of Sticking Impacts in Rocking Structures.” *Bulletin of Earthquake Engineering (Springer)*, 15, 2273–2304. DOI: 10.1007/s10518-016-0068-4
- [J19] **Dimitrakopoulos EG***, Fung EDW (2016). “Closed-form Rocking Overturning Conditions for a Family of Pulse Ground Motions.” *Proceedings of the Royal Society A*, 472, 2196. DOI: 10.1098/rspa.2016.0662
- [J18] Paraskeva TS*, **Dimitrakopoulos EG***, Zeng Q (2016). “Dynamic Vehicle-Bridge Interaction Under Simultaneous Vertical Earthquake Excitation.” *Bulletin of Earthquake Engineering (Springer)*, 15(1), 71–95. DOI: 10.1007/s10518-016-9954-z
- [J17] Zeng Q, Yang YB, **Dimitrakopoulos EG*** (2016). “Dynamic response of high speed vehicles and sustaining curved bridges under conditions of resonance.” *Engineering Structures (Elsevier)*, 114, 61–74. DOI: 10.1016/j.engstruct.2016.02.006
- [J16] Zeng Q, **Dimitrakopoulos EG*** (2016). “Seismic Response Analysis of an Interacting Curved Bridge-Train System Under Frequent Earthquakes.” *Earthquake Engineering and Structural Dynamics (Wiley)*, 45(7), 1129–1148. DOI: 10.1002/eqe.2699
- [J15] Chrysostomou CZ, Kyriakides N, Papanikolaou V, Kappos AJ*, **Dimitrakopoulos EG***, Giouvanidis AI (2015). “Vulnerability assessment and feasibility analysis of seismic strengthening of school buildings.” *Bulletin of Earthquake Engineering (Springer)*, 13(12), 3809-3840. DOI: 10.1007/s10518-015-9791-5

(*) = Corresponding author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (*MSc student*) ; (UG student).

- [J14] **Dimitrakopoulos EG***, *Paraskeva TS* (2015). “Dimensionless Fragility Curves for Rocking Response to Near-Fault Excitations.” *Earthquake Engineering and Structural Dynamics (Wiley)*, 44(12), 2015-2033. DOI: 10.1002/eqe.2571
- [J13] **Dimitrakopoulos EG***, *Giouvanidis AI* (2015). “Seismic Response Analysis of the Planar Rocking Frame.” *Journal of Engineering Mechanics (ASCE)*, 141(7), 04015003. DOI: 10.1061/(ASCE)EM.1943-7889.0000939
- [J12] **Dimitrakopoulos EG***, *Zeng Q* (2015). “A Three-dimensional Dynamic Analysis Scheme for the Interaction between Trains and Curved Railway Bridges.” *Computers & Structures (Elsevier)*, 149, 43-60. DOI: 10.1016/j.compstruc.2014.12.002
- [J11] DeJong MJ*, **Dimitrakopoulos EG*** (2014). “Dynamically Equivalent Rocking Structures.” *Earthquake Engineering and Structural Dynamics (Wiley)*, 43(10), 1543–1563. DOI: 10.1002/eqe.2410
- [J10] **Dimitrakopoulos EG*** (2013). “Nonsmooth Analysis of the Impact Between Successive Skew Bridge-segments.” *Nonlinear Dynamics (Springer)*, 74(4), 911-928. DOI: 10.1007/s11071-013-1012-7
- [J9] **Dimitrakopoulos EG***, DeJong MJ (2012). “Revisiting the Rocking Block: Closed-form Solutions and Similarity Laws.” *Proceedings of the Royal Society A*, 468, 2294-2318. DOI: 10.1098/rspa.2012.0026
- [J8] **Dimitrakopoulos EG**, DeJong MJ* (2012). “Overturning of Retrofitted Rocking Structures Under Pulse-type Excitations.” *Journal of Engineering Mechanics (ASCE)*, 138(8), 963–972. DOI: 10.1061/(ASCE)EM.1943-7889.0000410
- [J7] **Dimitrakopoulos EG*** (2011). “Seismic Response Analysis of Skew Bridges with Pounding Deck-Abutment Joints.” *Engineering Structures (Elsevier)*, 33(3), 813-826. DOI: 10.1016/j.engstruct.2010.12.004
- [J6] **Dimitrakopoulos EG***, Makris N, Kappos AJ (2011). “Dimensional Analysis of the Earthquake-induced Pounding between Inelastic Structures.” *Bulletin of Earthquake Engineering (Springer)*, 9(2), 561-579. DOI: 10.1007/s10518-010-9220-8
- [J5] **Dimitrakopoulos EG***, Makris N, Kappos AJ (2010). “Dimensional Analysis of the Earthquake Response of a Pounding Oscillator.” *Journal of Engineering Mechanics (ASCE)*, 136(3), 299-310. DOI: 10.1061/(ASCE)0733-9399(2010)136:3(299)
- [J4] **Dimitrakopoulos EG*** (2010). “Analysis of a Frictional Oblique Impact Observed in Skew Bridges.” *Nonlinear Dynamics (Springer)*, 60, 575-595. DOI: 10.1007/s11071-009-9616-7
- [J3] **Dimitrakopoulos EG**, Makris N*, Kappos AJ (2009). “Dimensional Analysis of the Earthquake-induced Pounding between Adjacent Structures.” *Earthquake Engineering and Structural Dynamics (Wiley)*, 38(7), 867-886. DOI: 10.1002/eqe.872
- [J2] **Dimitrakopoulos EG***, Kappos AJ, Makris N (2009). “Dimensional Analysis of the Earthquake Response of Yielding and Pounding Structures for Records Without Distinct Pulses.” *Soil Dynamics and Earthquake Engineering (Elsevier)*, 29(7), 1170-1180. DOI: 10.1016/j.soildyn.2009.02.006
- [J1] Kappos AJ*, **Dimitrakopoulos EG** (2008). “Feasibility of pre-earthquake strengthening of buildings based on cost-benefit and life-cycle cost analysis, with the aid of fragility curves.” *Natural Hazards (Springer)*, 45, 33-54. DOI: 10.1007/s11069-007-9155-9

(*) = Corresponding author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (*MSc student*) ; (UG student).

JOURNAL PUBL. (UNDER REVIEW OR PREPARATION)

1. Siu HM, Papadimitriou C, Yuan Y, **Dimitrakopoulos EG*** “A Bayesian filtering and smoothing approach for contact point response estimation in vehicle scanning”
2. Hanlin Wei, Angelo Aloisio, Da Shi, Ruijia Wu, Massimo Fragiocomo, Mauricio Cardenas Laverde, Zhi Li, Bo Shan, Edwin Zea Escamilla, Kristof Crolla, Luis Felipe Lopez, Juan F. Correal, Kewei Liu, Umberto Berardi, **Dimitrakopoulos EG***, Yan Xiao, Cristoforo Demartino “Bamboo as a construction material: from plants to structures”
3. Khodabakhshi N, Robel GAM, **Dimitrakopoulos EG*** “Composite action of multi-culm bamboo flexural members with steel bolted connections”
4. Homaei H, Montenegro PA, Stoura CD, **Dimitrakopoulos EG*** “A decoupled vehicle-bridge interaction method to evaluate train running safety under earthquakes”
5. Loong CN, **Dimitrakopoulos EG*** “Closed-form modal analysis of general lumped stiffness-mass structures via characteristic rational P-functions”
6. Shrestha S, **Dimitrakopoulos EG***, Kappos AJ “Nonsmooth simulation of skew deck-abutment experiments”

KEYNOTES

- [K5] Dimitrakopoulos EG (17-19/Nov/2023) “Towards Universal Embedment Properties of Bamboo Culms” *2nd International Conference on Sustainable Structures (ICSUST2)*, *4th Symposium on Sustainable Bio-composite Materials and Structures*, online
- [K4] Dimitrakopoulos EG (12/Nov/2022) “Capacity-Based Design of Bamboo Members with Dowel-Type Connections” *BCAE3, 3rd International Collaboration on Bamboo Construction and Academic Exchange*, online from Nanjing China
- [K3] Dimitrakopoulos EG (21/Oct/2022) “Dynamic Vehicle-Bridge Interaction under Seismic Excitation: questions and challenges” (in Greek), *5th Panhellenic Conference on Seismic Engineering and Engineering Seismology, 20-20 Oct 2022, Athens, Greece*
- [K2] Dimitrakopoulos EG (9-11/Nov/2018) “Experimental Characterization of New Multi-full-culm Bamboo to Steel Connections” *SBMS1 2018, 1st World Symposium on Sustainable Bio-Composite Materials and Structures*, 9-11 November 2018, Nanjing Forestry University, Nanjing, China
- [K1] Dimitrakopoulos EG (26/May/2015) “Seismic Response Analysis of a Coupled Vehicle-Bridge System” *COM-PDYN 2015, 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, 26 May 2015, Crete Island, Greece

RESEARCH INVITED SEMINARS

- [S7] Dimitrakopoulos EG (27/Jun/2024) “Engineered structures made of bamboo culms: Challenges and Future”, Faculty of Engineering, Universiti Putra Malaysia, Kuala Lumpur, Malaysia
- [S6] Dimitrakopoulos EG (25/Nov/2021) “Vehicle–Bridge Interaction: high-speed railways and vehicle scanning of bridges”, webinar, Dept of Civil Infrastructure and Environmental Engineering, Khalifa Uni., Abu Dhabi
- [S5] Dimitrakopoulos EG (15/Sep/2017) “On the Nonsmooth Modelling of Rocking Behaviour”, Civil Engineering Seminar Series at the Department of Structures for Engineering and Architecture, University of Naples Federico II, Italy
- [S4] Dimitrakopoulos EG (22/Dec/2014) “Seismic Response and Fragility of Rocking Structures”, NTUA, Civil Engineering Department, Athens, Greece

- [S3] Dimitrakopoulos EG (19/Dec/2013) “Rocking as a Seismic Isolation Technique for Modern Bridges”, Civil Engineering Seminar Series at EPFL, Faculté de l’environnement Naturel, Architectural et Construit (ENAC), Lausanne, Switzerland
- [S2] Dimitrakopoulos EG (17/Dec/2013) “Seismic Response and Nonsmooth Structural Dynamics”, Institute for Structural Engineering (IBK) at ETH, Zürich, Switzerland
- [S1] Dimitrakopoulos EG (8/Jan/2013) “Rocking as a Seismic Isolation Technique for Modern Concrete Bridges”, M.Sc. program: “Earthquake Resistant Design of Structures”, Aristotle University of Thessaloniki, Civil Engineering Department, Thessaloniki, Greece

BOOK CHAPTERS

- [B4] Giouvanidis AI, **Dimitrakopoulos EG**, Lourenço PB (2023) “A semi-analytical approach to approximate chattering time of rocking structures”. In: Mathematical Modeling and Analysis of degradation and restoration in Cultural Heritage, Eds: Bretti G., Cavaterra C, Solci M. and Spagnuolo M., Springer INdAM Series, 121–132 [in press], First Online: 01 June 2023
- [B3] Shi Z, **Dimitrakopoulos EG** (2017) “Comparative study of deck-abutment interaction with different contact models”, Edited By Nawawi Chouw, Rolando P. Orense, Tam Larkin, Seismic Performance of Soil-Foundation-Structure Systems; Selected Papers from the International Workshop on Seismic Performance of Soil-Foundation-Structure Systems, Auckland, New Zealand, 21-22 November 2016. Taylor& Francis Group CRC Press
- [B2] **Dimitrakopoulos EG**, DeJong MJ (2013) “Seismic Overturning of Rocking Structures with External Viscous Dampers”, M. Papadrakakis et al. (eds.), Computational Methods in Earthquake Engineering, Computational Methods in Applied Sciences 30, Springer, Chapter ID: 12, DOI 10.1007/978-94-007-6573-3_12
- [B1] Kappos AJ, **Dimitrakopoulos EG**, (2013) “Analysis and assessment of a seismically isolated bridge”, in Seismic Control Systems (edited by S. Syngellakis), WIT Press 2013, 143-152 (ISBN: 978-1-84564-672-1)

CONFERENCE PUBLICATIONS (SELECTED)

- [C70] Khodabakhshi N*, **Dimitrakopoulos EG** (2025) “Effects of bamboo culm taper and straightness on the stiffness of bolted multi-culm bamboo structures” *6th International Conference on Bio-Based Building Materials (ICBBM-2025)*, Rio de Janeiro Brazil, 17-20 June 2025.
- [C69] Siu HM*, **Dimitrakopoulos EG**, Papadimitriou C (2025) “A generalized contact point response estimation via on-board sensing” *6th International Conference on Uncertainty Quantification in Computational Science and Engineering (UNCECOMP2025)*, Rhodes, Greece, 15-18 June 2025.
- [C68] Homaei H, Montenegro PA, Stoura CD*, **Dimitrakopoulos EG** (2025) “Application of the Extended Modified Bridge System (EMBS) method in seismic vehicle-bridge interaction” *10th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN)*, Rhodes Island, Greece, 15-18 June 2025.
- [C67] Loong CN*, **Dimitrakopoulos EG** (2024) “Analytical modal analysis of fractal trees with auxiliary p-functions.” *26th International Congress of Theoretical and Applied Mechanics (ICTAM 2024)*, EXCO Daegu, Korea, 25-30 August 2024.
- [C66] Homaei H*, Stoura CD, **Dimitrakopoulos EG** (2024) “A rational approach for decoupling the vehicle-bridge interaction problem under the effect of earthquake excitation” *18th World Conference on Earthquake Engineering*, June 30 - July 5, 2024, Milan, Italy.
- [C65] Kappos AJ, Demartino C, Luca F De, Karamitros D, Risi R De, **Dimitrakopoulos EG**, Mehyar Abu Shehab H, Laora RDi, Crewe A, Dietz M, Horseman T, Briseghella B, Lavorato D, Isakovic T, Sextos A, Mylonakis G, Nuti C (2024) “Deck pounding on the abutment-backwall system of bridges: the eries-poundbac2 project.” *18th World Conference on Earthquake Engineering*, June 30 - July 5, 2024, Milan, Italy.
- [C64] Loong CN*, **Dimitrakopoulos EG** (2024) “Explainable machine learning to predict the seismic response of pounding bridge models.” *18th World Conference on Earthquake Engineering*, June 30 - July 5, 2024, Milan, Italy.
- [C63] Giouvanidis AI*, **Dimitrakopoulos EG** (2023) “Rocking Amplification and Vector-Valued Intensity Measures” *26th Australasian Conference on the Mechanics of Structures and Materials (ACMSM26)*, Auckland, New Zealand, 3-6 December 2023.
- [C62] Khodabakhshi N*, Mouka Th, **Dimitrakopoulos EG** (2023) “The effect of single and bimodulus material behavior on longitudinal compression failure of bamboo culms under flexure” *26th Australasian Conference on the Mechanics of Structures and Materials (ACMSM26)*, Auckland, New Zealand, 3-6 December 2023.
- [C61] Pradhan NP, Khodabakhshi N*, **Dimitrakopoulos EG** (2023) “Characterizing reduction of variability in bamboo axial members through use of multiple culms and grading” *26th Australasian Conference on the Mechanics of Structures and Materials (ACMSM26)*, Auckland, New Zealand, 3-6 December 2023.
- [C60] Chu SKW*, Giouvanidis AI, Loong CN, **Dimitrakopoulos EG** (2023) “Seismic rocking response classification through the lens of a machine learning methodology” *26th Australasian Conference on the Mechanics of Structures and Materials (ACMSM26)*, Auckland, New Zealand, 3-6 December 2023.
- [C59] Homaei H*, **Dimitrakopoulos EG** (2023) “Does vehicle-bridge interaction resemble the effect of tuned-mass dampers on bridges during earthquakes?” *2nd Conference of the European Association on Quality Control of Bridges and Structures (EUROSTRUCT)*, Vienna, Austria, September 25-29, 2023.
- [C58] Lachanas CG, Vamvatsikos D, **Dimitrakopoulos EG** (2023) “Rocking intensity measures: from interface variables to response proxies” *SECED 2023 Conference, Earthquake Engineering & Dynamics for a Sustainable Future*, Cambridge, UK, 14-15 September 2023.

(*) = Presenting author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (MSc student) ; (UG student).

- [C57] Giouvanidis AI*, **Dimitrakopoulos EG**, Lourenço PB (2023) “An asymptotic approximation of the chattering time for the rocking problem” *XII International Conference on Structural Dynamics, EURODYN 2023*, Delft, Netherlands, 2-5 July 2023.
- [C56] Loong CN*, **Dimitrakopoulos EG** (2023) “A novel approach for analyzing the dynamic properties of trees with fractal sympodial branching architecture: a group tree modelling” *XII International Conference on Structural Dynamics, EURODYN 2023*, Delft, Netherlands, 2-5 July 2023.
- [C55] Homaei H*, **Dimitrakopoulos EG** (2023) “Extended modified bridge system method for vehicle-bridge interaction: treatment of rotational degrees of freedom” *9th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN)*, Athens, Greece, June 12-14, 2023.
- [C54] Filippitzis F, Siu HM*, Stoura CD, Papadimitriou C, **Dimitrakopoulos EG** (2023) “Response reconstruction in bridges using on-board measurements from passing vehicles” *5th International Conference on Uncertainty Quantification in Computational Science and Engineering*, Athens, Greece, June 12-14, 2023.
- [C53] Mouka Th*, Kum KH, **Dimitrakopoulos EG** (2022) “Modeling embedment in bamboo culms and in full-culm bamboo bolted connections” *International Conference on Non-conventional Materials and Technologies (NOCMAT 2022)*, June 23, 2022, online presentation.
- [C52] Mouka Th*, **Dimitrakopoulos EG**, Lorenzo R (2022) “Analytical prediction of failure mechanism and failure moment in full-culm bamboo bending tests” *International Conference on Non-conventional Materials and Technologies (NOCMAT 2022)*, June 23, 2022, online presentation.
- [C51] Pradhan NPN*, **Dimitrakopoulos EG** (2022) “Design of multiculm bamboo members with bolted connections” *International Conference on Non-conventional Materials and Technologies (NOCMAT 2022)*, June 23, 2022, online presentation.
- [C50] Stoura CD*, **Dimitrakopoulos EG** (2021) “Effect of vehicle-bridge interaction on the vibration of the bridge” *Proceedings of the 14th World Congress on Computational Mechanics (WCCM 2021)*, Virtual Congress, January 11-15, 2021.
- [C49] Stoura CD*, Paraskevopoulos E, **Dimitrakopoulos EG** (2021) “A systematic approach to solve the vehicle-bridge interaction problem under earthquake” *Proceedings of the 17th World Conference on Earthquake Engineering (17WCEE 2020)*, Sendai, Japan, September 27-October 2, 2021.
- [C48] Stoura CD*, **Dimitrakopoulos EG** (2021) “An Extended Modified Bridge System Method to decouple the vehicle-bridge interaction problem” *8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2021)*, streamed from Athens, Greece, June 28-30, 2021 (abstract and presentation only).
- [C47] Stoura CD*, **Dimitrakopoulos EG**, Paraskevopoulos E, Natsiavas S (2021) “A system of ordinary differential equations to solve the vehicle-bridge interaction problem” *8th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2021)*, streamed from Athens, Greece, June 28-30, 2021 (abstract and presentation only).
- [C46] Pradhan NPN*, Paraskeva TS, **Dimitrakopoulos EG** (2020) “Experimental characterization of multi-full-culm bamboo to steel connections” *CIGOS 2019, Innovation for Sustainable Infrastructure*, pp. 245-250, Hanoi, Vietnam, 31 October - 1 November 2019, Lecture Notes in Civil Engineering, Springer Singapore, 2020.
- [C45] Pradhan NPN*, Paraskeva TS, **Dimitrakopoulos EG** (2019) “Cyclic behavior of multi-culm bamboo to steel connections” *Advances in Civil Engineering and Materials, Sustainable Bio-composite Materials and Structures*, Fuzhou, China, 25-27 October 2019.

(*) = Presenting author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (MSc student) ; (UG student).

- [C44] Pradhan NPN*, **Dimitrakopoulos EG**, *Paraskeva TS* (2019) “Characterizing the performance of transversely confined multi-full-culm bamboo to steel connections” *Sustainable Construction Materials and Technologies*, Kingston upon Thames, United Kingdom, 14-17 July 2019.
- [C43] Stoura CD*, **Dimitrakopoulos EG** (2019) “A rational method to decouple the train-bridge interaction problem” *7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2019)*, Crete, Greece, 24-26 June 2019.
- [C42] Stoura CD*, *Zeng Q*, **Dimitrakopoulos EG** (2019) “Vehicle-Bridge Interaction Analysis Using The Localized Lagrange Multipliers Approach” *7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2019)*, Crete, Greece, 24-26 June 2019.
- [C41] Mouka Th*, **Dimitrakopoulos EG** (2019) “Numerical simulation of full-culm bamboo structural member connections” *Proceedings of the CompWood 2019 Conference on Computational Methods in Wood Mechanics*, Vaxjo, Sweden, June 17-19 (abstract only).
- [C40] Grigoropoulos G*, *Louati M*, *Ghidaoui MSBH*, **Dimitrakopoulos EG** (2018) “Effect of structural vibration in the propagation of high-frequency waves through a fluid-filled elastic pipe” *13th International Conference on Pressure Surges*, Bordeaux, France, 14-16 November 2018.
- [C39] Pradhan NPN, Mouka Th, Lee YM, **Dimitrakopoulos EG** (2018) “Edge bearing induced failure of full culm bamboo” *Global Bamboo and Rattan Congress 2018 (BARC 2018)*, Beijing, China, 25-27 June 2018 (poster only).
- [C38] Jin N*, *Paraskeva TS*, **Dimitrakopoulos EG** (2018) “Estimation of bridge frequency from a passing vehicle” *9th International Conference on Bridge Maintenance, Safety and Management (IABMAS)*, Melbourne, Australia, 9-13 July 2018.
- [C37] Jin N*, *Paraskeva TS*, **Dimitrakopoulos EG**, *Katafygiotis L* (2018) “Estimation of bridge frequency from traversing vehicle by short-time stochastic subspace identification” *2nd Pan American Congress on Computational Mechanics*, New York, USA, 22-27 July 2018.
- [C36] Giouvanidis AI*, **Dimitrakopoulos EG** (2018) “In quest of optimal intensity measures of rocking behavior” *16th European Conference on Earthquake Engineering (16ECEE)*, Thessaloniki, Greece, 18-21 June 2018.
- [C35] Stoura CD*, *Zeng Q*, **Dimitrakopoulos EG** (2018) “Seismic analysis between trains and bridges using a localized Lagrange multipliers approach” *The 2018 World Congress on Advances in Civil, Environmental, & Materials Research (ACEM18) and The 2018 Structures Congress (Structures18)*, Incheon, Korea, 28-31 August 2018.
- [C34] Loong CN*, *Chang CC*, **Dimitrakopoulos EG** (2018) “Simultaneous vibration control and energy harvesting using actor-critic based reinforcement learning” *Proceedings Volume 10595, Active and Passive Smart Structures and Integrated Systems XII*, 105952Q, *SPIE Smart Structures and Materials + Nondestructive Evaluation and Health Monitoring*, 2018, Denver, Colorado, United States. DOI: 10.1117/12.2295304
- [C33] *Zeng Q**, **Dimitrakopoulos EG** (2017) “Derailment mechanism of trains running over bridges during strong earthquakes” *X International Conference on Structural Dynamics, EURODYN 2017*, Procedia Engineering, Volume 199, 2017, Pages 2633-2638.
- [C32] *Paraskeva TS**, **Dimitrakopoulos EG**, *Katafygiotis L* (2017) “Estimation of bridge frequencies from the vibration response of a moving vehicle using an integrated vehicle-bridge interaction analysis” *6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017)*, Rhodes Island, Greece, 15-17 June 2017 (abstract only).

(*) = Presenting author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (MSc student) ; (UG student).

- [C31] Giouvanidis AI, Fragiadakis M, **Dimitrakopoulos EG*** (2017) “Vulnerability Assessment of Flag-Shaped Hysteretic Rocking Bridge Bents” *6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017)*, Rhodes Island, Greece, 15-17 June 2017.
- [C30] Giouvanidis AI, **Dimitrakopoulos EG*** (2017) “Nonsmooth Modelling of Impacts in Rocking Structures with Poisson’s Law” *6th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017)*, Rhodes Island, Greece, 15-17 June 2017.
- [C29] Giouvanidis AI, **Dimitrakopoulos EG*** (2017) “Seismic Reliability Assessment of Rocking Bridge Bents with Flag-Shaped Hysteretic Behavior” *16th World Conference on Earthquake Engineering, 16WCEE 2017*, Santiago, Chile, 9-13 Jan 2017.
- [C28] Shi Z*, **Dimitrakopoulos EG** (2017) “Nonsmooth Seismic Response Analysis of a Straight Bridge with Deck Rotation Induced by Abutment Impact” *16th World Conference on Earthquake Engineering, 16WCEE 2017*, Santiago, Chile, 9-13 Jan 2017.
- [C27] Zeng Q, **Dimitrakopoulos EG*** (2017) “Seismic Response Analysis of an Interacting Train-Bridge System considering Derailment” *16th World Conference on Earthquake Engineering, 16WCEE 2017*, Santiago, Chile, 9-13 Jan 2017.
- [C26] Giouvanidis AI, **Dimitrakopoulos EG*** (2016) “Modelling Contact in Rocking Structures with a Nonsmooth Dynamics Approach” *ECCOMAS Congress 2016, European Congress on Computational Methods in Applied Sciences and Engineering*, Crete Island, Greece, 5-10 June 2016.
- [C25] Zeng Q, **Dimitrakopoulos EG*** (2017) “Running Safety Evaluation of High-Speed Trains via Seismic Train-Bridge Interaction Analysis” *CCESE: Collaborative Conference on Earthquake Science and Engineering*, September 4-8, 2016, Budapest, Hungary (abstract only).
- [C24] Giouvanidis AI*, **Dimitrakopoulos EG** (2016) “The Role of the Prestressed Tendons on the Seismic Performance of Hybrid Rocking Bridge Bents” *ECCOMAS Congress 2016, European Congress on Computational Methods in Applied Sciences and Engineering*, Crete Island, Greece, 5-10 June 2016.
- [C23] Giouvanidis AI, **Dimitrakopoulos EG***, DeJong MJ (2015) “Seismic response of rocking bridge bents with parameterized flag-shaped hysteretic behavior” *10th Pacific Conference on Earthquake Engineering*, Sydney, Australia, 6-8 November 2015.
- [C22] Zeng Q, **Dimitrakopoulos EG*** (2015) “Seismic response analysis of a coupled (curved railway) bridge - train system under frequent earthquakes” *10th Pacific Conference on Earthquake Engineering*, Sydney, Australia, 08 November 2015 (poster).
- [C21] **Dimitrakopoulos EG*** (2015) “Deterministic and probabilistic assessment of the Seismic Performance of Rocking Behavior Under Near-fault Excitations” *EMI 2015, Engineering Mechanics Institute Conference*, Stanford University, USA, 16-19 June 2015 (abstract only).
- [C20] Zeng Q*, **Dimitrakopoulos EG**, Lo CH (2015) “Three-dimensional Numerical Simulation of the Dynamic Interaction Between High-speed Trains and a Steel-truss Arch Bridge” *ASEM15, 2015 World Congress on Advances in Structural Engineering and Mechanics*, Songdo Convensia, Incheon, South Korea, 25-29 August 2015.
- [C19] Loong CN*, Chang CC, **Dimitrakopoulos EG** (2015) “Nonlinear Effects of Energy Harvesting Circuit Topology on a Structure-harvester System” *11th International Workshop on Advanced Smart Materials and Smart Structures Technology*, University of Illinois, Urbana-Champaign, USA, 1-2 August 2015.

(*) = Presenting author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (MSc student) ; (UG student).

- [C18] Zeng Q, **Dimitrakopoulos EG*** (2015) “Seismic Response Analysis of a Coupled (Curved Railway) Bridge - Train System Under Frequent Earthquakes” *6th IC-EpsMsO, 6th International Conference on “Experiments/Process/System Modelling/Simulation/Optimization”*, IC-EpsMsO, Athens, 8-11 July 2015.
- [C17] Zeng Q*, **Dimitrakopoulos EG**, Guo K, Peng B (2015) “Seismic Response Analysis of an Interacting (Highway) Bridge-Vehicle (Trucks) System under Frequent Earthquakes” *ICCEASI 2015, 3rd International Conference on Civil Engineering, Architecture and Sustainable Infrastructure*, Hong Kong, 1-3 July 2015.
- [C16] **Dimitrakopoulos EG***, *Paraskeva TS* (2015) “Seismic Reliability Assessment of Rocking Behaviour Under Near-Fault Excitations” *COMPDYN 2015, 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Crete Island, Greece, 25-27 May 2015.
- [C15] Zeng Q, **Dimitrakopoulos EG***, *Paraskeva TS* (2015) “Seismic Response Analysis of a Coupled Vehicle-Bridge System” *COMPDYN 2015, 5th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Crete Island, Greece, 25-27 May 2015.
- [C14] Giouvanidis AI*, **Dimitrakopoulos EG** (2014) “Seismic Analysis of Hybrid Rocking Bridge Bents” *2nd European Conference on Earthquake Engineering and Seismology*, Istanbul, Turkey, 25-29 August 2014.
- [C13] **Dimitrakopoulos EG***, Zeng Q (2014) “Dynamic interaction between high-speed trains and curved railway bridges” *IABMAS 2014 International Conference on Bridge Maintenance, Safety and Management*, Shanghai, 7-11 July 2014.
- [C12] Chrysostomou CZ*, Kyriakides N, Kappos AJ, Kouris L, Papanikolaou V, **Dimitrakopoulos EG**, Giouvanidis AI, Georgiou E (2014) “Assessment of the Seismic Retrofitting Programme for School Buildings in Cyprus” *4th International fib Congress*, Mumbai, India, 10-14 February 2014.
- [C11] Lu QC*, Chang CC, **Dimitrakopoulos EG** (2013) “Harvesting Vibration Energy Using a Tuned Mass Damper With an Electromagnetic Energy Harvester” *6th International Conference on Structural Health Monitoring of Intelligent Infrastructure*, Hong Kong, 9-11 Dec 2013.
- [C10] **Dimitrakopoulos EG***, DeJong MJ, Giouvanidis AI (2013) “Seismic Assessment of Rocking Bridge Bents Using an Equivalent Rocking Block” *Advances in Structural Engineering and Mechanics (ASEM)*, Jeju, Korea, 8-12 September 2013.
- [C9] **Dimitrakopoulos EG*** (2013) “Nonsmooth Analysis Of The Earthquake-Induced Pounding In Skew Bridges” *COMPDYN 2013, 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Kos Island, Greece, 12-14 June 2013.
- [C8] DeJong MJ*, **Dimitrakopoulos EG** (2013) “Towards A Unified Description Of Rocking Structures” *COMPDYN 2013, 4th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Kos Island, Greece, 12-14 June 2013.
- [C7] DeJong MJ*, **Dimitrakopoulos EG** (2012) “Equivalent rocking systems: Fundamental rocking parameters” *15th World Conference on Earthquake Engineering (15WCEE)*, Lisbon, Portugal.
- [C6] Zeng Q, **Dimitrakopoulos EG*** (2012) “Three-dimensional Numerical Simulation of the Interaction Dynamics of High-speed Trains - Railway Bridges” *5th IC-SCCE International Conference from Scientific Computing to Computational Engineering*, Athens, Greece, 4-7 July 2012.
- [C5] **Dimitrakopoulos EG***, DeJong MJ (2011) “Seismic Overturning of Damped Rocking Structures” *COMPDYN III ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering*, Corfu, Greece, 26-28 May 2011.

(*) = Presenting author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (MSc student) ; (UG student).

- [C4] **Dimitrakopoulos EG***, Kappos AJ, Makris N (2008) “Dimensional Response Analysis of Structures for Records without Distinct Pulses” *Proceedings of the International Scientific Symposium Modelling of Structures*, Mostar, Bosnia & Herzegovina, 13-15 November, 101-117.
- [C3] **Dimitrakopoulos EG***, Makris N, Kappos AJ (2008) “Dimensional Analysis of Pounding Oscillators” *Proceedings of the 6th GRACM International Congress on Computational Mechanics*, Thessaloniki, Greece, 19-21 June, Paper No. 1102.
- [C2] Kappos AJ*, **Dimitrakopoulos EG** (2005) “Analysis and assessment of a seismically isolated bridge” *Earthquake Resistant Engineering Structures V (ERES 2005)*, WIT Press, 625-635.
- [C1] **Dimitrakopoulos EG***, Kappos AJ (2005) “Assessment of a seismically isolated bridge using inelastic time-history analysis” *Proceedings of the 4th European Workshop on the Seismic Behaviour of Irregular and Complex Structures*, Thessaloniki, Greece, 26-27 August, Paper No. 55.

PAPERS IN REFEREED GREEK CONFERENCE PROCEEDINGS

- [CG5] **Dimitrakopoulos EG***, Makris N, Kappos AJ (2008) “Dimensional Analysis of the Earthquake Induced Pounding between Adjacent Oscillators”, *3rd Hellenic Conf. on Earthquake Engineering and Engineering Seismology*, Athens, Nov. 2008, paper no. 2010. (in Greek)
- [CG4] **Dimitrakopoulos EG***, Kappos AJ (2008) “Estimation of the Optimal Pre-earthquake Strengthening Level based on Life-Cycle-Cost Analysis”, *3rd Hellenic Conf. on Earthquake Engineering and Engineering Seismology*, Athens, Nov. 2008, paper no. 2014. (in Greek)
- [CG3] Kappos AJ, **Dimitrakopoulos EG***, Papaioannou Ch (2006) “Feasibility of pre-earthquake strengthening of buildings: Methodology and pilot application”, *15th Hellenic Conf. on Concrete*, Alexandroupolis, Oct. 2006. (in Greek)
- [CG2] Salonikios TN*, **Dimitrakopoulos EG** (2006) “Simulation of the flexure - shear interaction in the critical zones of RC walls”, *15th Hellenic Conf. on Concrete*, Alexandroupolis, Oct. 2006 (in Greek)
- [CG1] Kappos AJ*, **Dimitrakopoulos EG** (2003) “Application of fluid viscous dampers to the retrofit of existing concrete buildings”, *14th Hellenic Conf. on Concrete*, Kos, Oct. 2003, Vol. B, 452-463 (in Greek)

RESEARCH TECHNICAL REPORTS

- [TR2] Kappos AJ, Athanassiadou Ch, Panagopoulos G, Penelis Gr, **Dimitrakopoulos EG** (2007) “Fragility Curves for Reinforced Concrete and Unreinforced Masonry Buildings”. Report No. 2. Research Program: Seismic vulnerability assessment of existing buildings and development of advances materials and retrofit techniques (acronym: ARISTION), Work Package No.2 (in Greek)
- [TR1] Kappos AJ, **Dimitrakopoulos EG** (2005) “Cost-Benefit Estimation Methodology for the Pre-earthquake Strengthening of Buildings: Software and Pilot Application”, Report No. 20. Research Program: Seismic vulnerability assessment of existing buildings and development of advances materials and retrofit techniques (acronym: ARISTION), Work Package No. 6 (in Greek)

(*) = Presenting author. Co-authors under my supervision: (PhD student) ; (*Postdoctoral researcher*) ; (MSc student) ; (UG student).

POSTGRADUATE STUDENTS (GRADUATED)

1. **Dr. HOMAEI Hossein** (PhD, Fall 2021 - Fall 2025)
Thesis: *Investigation of Vehicle-Bridge Interaction in Railway Bridges under the Effect of Earthquake Excitation: An Analytical and Numerical Approach*
2. **Dr. MOUKA Theodora** (PhD, Fall 2019 - Spring 2022; MPhil, 2017-2019)
Thesis: *Bamboo structural member behavior: culm flexure and bolted connections*
3. **Dr. PRADHAN Nischal** (PhD, Spring 2017 - Fall 2021)
Thesis: *Characterization, Analysis and Design of Multi-culm Bamboo Axial Members with Dowel-type Connections for Use in Truss Structures*
4. **Dr. JIN Nan** (PhD, Fall 2015 - Summer 2021)
Thesis: *Subspace Identification of Bridge Frequencies Utilizing Dynamic Response of Traversing Vehicles*
Current position: Postdoctoral Researcher at Shenzhen Urban Public Safety and Technology Institute, China since 2021
5. **Dr. STOURA Charikleia** (PhD, Fall 2017 - Spring 2021)
Thesis: *Analytical and Numerical Examination of the Vehicle-Bridge Interaction Problem in Railway Bridges*
Current position: Postdoctoral Researcher at ETH, Switzerland since 2022
6. **Mr. LEUNG Wing Cheong Tom** (MPhil, Fall 2018 - Summer 2020)
Thesis: *Crowd-Sensing Based Bridge Modal Identification via Matrix Completion with Smoothness Regularizer*
7. **Dr. GIOUVANIDIS Anastasios** (PhD, Spring 2015 - Spring 2018; MPhil, Spring 2013 - Spring 2015)
Thesis: *Seismic Response Analysis of Rocking Structures: Hybrid Behavior, Contact Phenomenon and Critical Earthquake Characteristics*
Current position: Lecturer in Structural Engineering at the Department of Civil Engineering, University of Auckland (New Zealand) since Sep 2023
8. **Dr. ZENG Qing** (PhD, Fall 2012 - Summer 2016)
Thesis: *Analysis and Simulation of the Vehicle-Bridge Interaction in Horizontally Curved Railway Bridges*
Current position: Assistant Professor in Civil Engineering, School of Civil and Environmental Engineering at Harbin Institute of Technology, Shenzhen (HIT SZ), China since 2019
9. **Dr. LOONG Cheng Ning** (MPhil, Fall 2014 - Summer 2016, co-supervised with Prof. CC Chang)
Thesis: *Dimensional Analysis of a Nonlinear Electro-mechanical Structure-harvester System under Ground Motion Excitations*
Current position: Postdoctoral Researcher at HKUST

POSTGRADUATE STUDENTS (CURRENT)

1. **Mr. KASIMU Aliyu** (MPhil program, admitted Sep 2024)
Topic: *Vehicle Scanning of Bridges*
2. **Mr. SHRESTHA Sudip** (PhD program, admitted Feb 2026; MPhil program, admitted Feb 2024)
Topic: *Seismic Analysis of Bridges*
3. **Mr. ROBEL Giorgio Armand Manzanilla** (PhD program, admitted Sep 2024)
Hong Kong PhD Fellowship Scheme fellow
Topic: *Bamboo Structures*
4. **Mr. CHU Ka Wing (Stefan)** (MPhil program, admitted Fall 2022)
Topic: *Rocking Response and Machine Learning*
5. **Ms. KHODABAKHSHI Nahid** (PhD program, admitted Fall 2022)
Topic: *Bamboo Engineering*
6. **Mr. SIU Ho Man** (MPhil program, admitted Fall 2021)
Topic: *Vehicle Bridge Interaction*

PROJECT SUPERVISION SUMMARY

Period: 2011-to 2024

- Total FYPs (Final Year Projects): 87
- Total MSc CIEM: 34
- Total UROPs (Undergraduate Research Opportunities): 18

SERVICE

Government

- Member of the Technical Committee on the Code of Practice for Structural Use of Concrete Buildings Department (2021–to date)

School

- Member of the Engineering Postgraduate Studies Committee (EPSC) (2017–2020)

University and Departmental

Coordinator

2021–2024

Task-Force on Next Generation Infrastructure Hiring

Member

2017–to date

Merit Salary Review Committee of Civil and Environmental Engineering Department

Member

2014–to date

Search and Appointment Committee of Civil and Environmental Engineering Department

Member

2017–Sep 2020

Post-graduate Committee of Civil and Environmental Engineering Department

Member

2011–2017

Post-graduate Committee of Civil and Environmental Engineering Department

Member

2011–2014

Resource Committee of Civil and Environmental Engineering Department

Member

2011–2017

Structural-Engineering-Group review of UG examination papers

PROFESSIONAL AND SCIENTIFIC AFFILIATIONS

INBAR

2023–to date

Member of Steering Committee of International Bamboo and Rattan Organization. Bamboo Construction Task Force on Bamboo Construction

EAEE

2014–to date

Member of European Association of Earthquake Engineering, Working Group 11 “Seismic Design, Assessment, and Retrofit of Bridges”

GUTAM

2010–to date

Member of Greek Union of Theoretical and Applied Mechanics (member of the *International Union of Theoretical and Applied Mechanics*)

EIIEΣ

2009–to date

Member of Greek Scientific Research Association on Concrete

Technical Chamber of Greece

2002–to date

Member

MEMBER OF PHD, MPhil EXAMINATION COMMITTEES

Date	Name	University
MAR 2026	Mr CHEN Peng	PolyU, Hong Kong
JAN 2026	Mr Azunna Sunday Ugochukwu	Universiti Putra Malaysia, Malaysia
AUG 2025	Mr Ahmed Utban	HKUST
AUG 2025	Mr Zhou Mingyuan	HKUST (GZ)
Feb 2025	Mr Lai Li	PolyU, Hong Kong
Jan 2025	Mr Jeyabalan Aswin Kumar	PolyU, Hong Kong
Aug 2024	Mr Karuna Arachchige Shan D. Ratnayake	HKUST
Jun 2024	Mr Ma Qi	PolyU, Hong Kong
Apr 2024	Mr Yang Ziqi	Uni. of Auckland, New Zealand
Mar 2024	Mr Katsamakas Antonios	ETH Zurich, Switzerland
Feb 2024	Mr Li Mingkai	HKUST
Dec 2023	Mr Sheng Li	Uni. of Melbourne, Australia
Aug 2023	Mr Wong Billy CL	HKUST
Aug 2023	Mr Song Changhao	HKUST
AUG 2023	Mr Zhu Jun	HKUST
MAR 2023	Ms Yang Liu	HKUST

Member of PhD examination committees (2023–2026)

Date	Name	University
Sep 2022	Ms Kosikova Antonina	HKUST
Aug 2022	Ms Wei Jianying	HKUST
Jun 2022	Mr Lachanas Christos G.	NTUA, Greece
Jun 2022	Mr Flores Terrazas Victor	HKUST
May 2022	Mr Diamantopoulos Spyridon	NTUA, Greece
Dec 2021	Mr Barrios Gonzalo	Uni. of Auckland, New Zealand
Oct 2021	Mr Jia Xinyu	Uni. of Thessaly, ME Dept., Greece
Apr 2021	Mr Mimendi Jose Leonel Cruz	Uni. College London, UK
Aug 2020	Mr Xu Chi	PolyU, Hong Kong
Jan 2020	Mr Avgenakis Evangelos	NTUA, Greece
Nov 2019	Mr Zouari Fedi	HKUST
Aug 2019	Mr Chen Yixin	HKUST
Aug 2019	Mr Sedehi Omid	HKUST
Aug 2019	Mr Yao Jie	HKUST
May 2019	Mr Mogili Srinivas	HKUST
Oct 2018	Mr Wang Zhilu	PolyU, Hong Kong
Aug 2018	Ms Wu Huaran	HKUST
May 2018	Ms Zhong Kaihui	HKUST
May 2018	Mr Kun Chern	Uni. of Auckland, New Zealand
Jan 2018	Ms Lim Ellys	Uni. of Auckland, New Zealand
Jan 2018	Mr Jamshidi Maziar	HKUST
Aug 2017	Mr Shen Shanpu	HKUST
Jun 2017	Mr Zhang Nan	HKUST
Jun 2016	Mr Moez Louati	HKUST
Jan 2017	Ms Lipo Blerta	Uni. of Roma Tre, Italy
Aug 2015	Mr Man Sin Hang	HKUST
Aug 2015	Mr Zhang Hang Hui	HKUST
Aug 2013	Mr Yan WanJi	HKUST
Aug 2012	Mr Tsoi Hiu Fong	HKUST

Table 3: Member of PhD examination committees (2012–2022)

Date	Name	University
Jun 2025	Mr Zhang Yuwei	HKUST
Aug 2019	Mr Afzal Muhammad	HKUST
Aug 2018	Mr Lau Ka Kin	HKUST
Dec 2015	Mr An Geng	HKUST
JUL 2015	Mr Cancogni Fabio	HKUST
AUG 2013	Ms Ding Fei	HKUST

Member of PhD examination committees

EDITORIAL ROLES

ASSOCIATE EDITOR

Journal: Bridge Engineering journal, Frontiers in Built Environment

REVIEWER FOR SCIENTIFIC JOURNALS

1. Acta Mechanica (Springer)
2. Advances in Structural Engineering (Multi-Science Publishing)
3. Applied Mathematical Modelling (Elsevier)
4. Bulletin of Earthquake Engineering (Springer)
5. Composites Part B (Elsevier)
6. Computers and Structures (Elsevier)
7. Construction and Building Materials (Elsevier)
8. Earthquake Spectra (EERI*)
9. Earthquake Engineering (Frontiers in Built Environment)
10. Earthquake Engineering and Engineering Vibration (Springer)
11. Earthquake Engineering and Structural Dynamics (Wiley)
12. Earthquakes and Structures (Techno Press)
13. Engineering Structures (Elsevier)
14. European Journal of Wood and Wood Products (Springer)
15. International Journal of Non-Linear Mechanics (Elsevier)
16. International Journal of Solids and Structures (Elsevier)
17. International Journal of Structural Stability and Dynamics (World Scientific)
18. Journal of Bridge Engineering (ASCE*)
19. Journal of Earthquake Engineering (Taylor & Francis)
20. Journal of Engineering Mechanics (ASCE*)
21. Journal of Hydraulic Research (Taylor & Francis)
22. Journal of Rail and Rapid Transit (SAGE)
23. Journal of Sound and Vibration (Elsevier)
24. Journal of Structural Engineering (ASCE*)
25. Journal of Wood Science (Springer)
26. Meccanica (Springer)
27. Mechanical Systems and Signal Processing (Elsevier)
28. Nonlinear Dynamics (Springer)
29. Nuclear Engineering and Design (Elsevier)
30. Proceedings of the Royal Society A (Royal Society)
31. Soil Dynamics and Earthquake Engineering (Elsevier)
32. Structural Engineering International (IABSE*)
33. Structures (Elsevier)
34. Structures and Buildings (ICE*)
35. Vehicle System Dynamics (Taylor & Francis)

Legend:

ASCE* = American Society of Civil Engineers

EERI* = Earthquake Engineering Research Institute

IABSE* = International Association for Bridge and Structural Engineering

ICE* = Institution of Civil Engineers

INTERNATIONAL WORKSHOP ORGANIZER

Workshop on “Next Generation Infrastructure and Sustainable Structural Solutions (NGI-SSS)”²⁰²⁴

The Hong Kong University of Science and Technology (HKUST), Hong Kong, 5–7 December 2024

CONFERENCE ORGANIZING & SCIENTIFIC COMMITTEES

- 26th Australasian Conference on the Mechanics of Structures and Materials, 3–6 December 2023, Auckland, New Zealand
- 6th Huixian International Forum on Earthquake Engineering for Young Researchers, 6–9 August 2023, Hong Kong, China
- 5th Panhellenic Conference on Seismic Engineering and Engineering Seismology, 20–22 October 2021, Athens, Greece
- 4th Panhellenic Conference on Seismic Engineering and Engineering Seismology, 5–7 September 2021, Athens, Greece

MINI-SYMPOSIA & SPECIAL SESSIONS CO-ORGANIZER

“Dynamics and Seismic Response of Rocking and Self-centering Structures” *2018*

Special Session 12, 16th European Conference on Earthquake Engineering, Thessaloniki, Greece, 18–21 June 2018

“Dynamics and Seismic Response of Rocking and Self-centering Structures” *2017*

MS 30, 6th ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2017), Rhodes Island, Greece, 15–17 June 2017

“Dynamics and Seismic Response of Rocking and Self-centering Structures” *2016*

MS 1212, European Community on Computational Methods in Applied Sciences (ECCOMAS), Crete Island, Greece, 5–10 June 2016

“Advances in Seismic Design and Assessment of Civil Infrastructure” *2013*

2013 World Congress on Advances in Structural Engineering Mechanics (ASEM), Korea, 8–12 September 2013

SESSION CHAIR

- 10th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN), Rhodes Island, Greece, 15–18 June 2025
- SBMS1 2018, 1st World Symposium on Sustainable Bio-Composite Materials and Structures, 9–11 November 2018, Nanjing Forestry University, Nanjing, China
- ECEE 2018, European Conference on Earthquake Engineering, Thessaloniki, Greece, 18–21 June 2018
- CCESE: Collaborative Conference on Earthquake Science and Engineering, Budapest, Hungary, 4–8 September 2016
- ECCOMAS Congress 2016, European Congress on Computational Methods in Applied Sciences and Engineering, Crete Island, Greece, 5–10 June 2016
- 5th IC-SCCE International Conference on Scientific Computing to Computational Engineering, Athens, Greece, 4–7 July 2012

COURSES AND TEACHING

CURRENT COURSES

- **CIVL 3320** - Reinforced Concrete Design (UG core course: 2020 - to date)
Offered: Spring semester
2026 Course Notes (PDF)
- **CIVL5350** - Bridge Engineering (Postgraduate course: 2012 - to date)
Offered: Fall semester

UNDERGRADUATE PROJECT SUPERVISION

- **CIVL4910** - Final Year Project (Supervision of UG graduation thesis: 2020 - to date)
- **UROP (Undergraduate Research Opportunities Program)** (Mentoring students in structural dynamics, bridge health monitoring, and bamboo structures.)

PREVIOUS COURSES

- **CIEM6000T** - Seismic Analysis and Design of Structures (MSc course: 2019 –2023)
Offered: Spring semester
- **CIVL5390/MECH5930** - Finite Element Methods (Postgraduate course: 2011-2022)
Offered: Fall semester - every other year
- **CIVL2110** - Statics (Undergraduate required course: 2012-2019)
Offered: Spring semester
- **CIVL4370** - Computer Methods of Structural Analysis (Undergraduate elective course: 2012-2019)
Offered: Spring semester
- **CIVL1010/2010/3010**: Academic and Professional Development I/II/III (2012-2021)

COURSE OVERVIEW BY LEVEL

- **Undergraduate Core Courses**: CIVL2110 (Statics), CIVL 3320 (Reinforced Concrete Design)
- **Undergraduate Elective Courses**: CIVL4370 (Computer Methods of Structural Analysis)
- **Postgraduate Courses**: CIVL5350 (Bridge Engineering), CIVL5390/MECH5930 (Finite Element Methods), CIEM6000 (Structural Dynamics & Earthquake Engineering)