

## **Publications**

### **Refereed Journal Papers**

Matheou, M., Kallioras, A.N., Lagaros D.N., Phocas, M.C. (2020). Automated Optimal Motion Sequence of a 9-Bar Linkage. *Frontiers*. doi.org/10.3389/fbuil.2020.00132

Christoforou, E.G., Phocas, M.C., Matheou, M. and Müller, A. (2019). Experimental implementation of the effective 4-bar method on a reconfigurable articulated structure. *Structures*. 20, 157 – 165. doi.org/10.1016/j.istruc.2019.03.009

Phocas, M. C., Matheou, M., Müller, A., and M Christoforou, E. G. (2019). Reconfigurable Modular Bar. *Journal of the International Association for Shell and Spatial Structures*. 60(1), 78 – 89. doi.org/10.20898/j.iass.2019.199.028

Matheou, M., Phocas, M. C., Christoforou, E. G. and Müller, A. (2018). On the kinetics of reconfigurable hybrid structures. *Building Engineering*. 17, 32 – 42. doi: 10.1016/j.jobbe.2018.01.013

Matheou, M., Phocas, M.C., Christoforou, E.G. (2017). On the Morphology of Reconfigurable Hybrid Structures based on the effective 4-bar Mechanism. *Computational Methods and Experimental Measurements*, 5(4), 484 – 494. 10.2495/CMEM-V5-N4-484-494

Phocas, M. C., Christoforou, E. G., and Matheou, M. (2015). Design, motion planning and control of a reconfigurable hybrid structure. *Engineering Structures*. 101(10), 376 – 385. doi: 10.1016/j.engstruct.2015.07.036

Christoforou, E. G., Müller, A., Phocas, M. C., Matheou, M., and Arnos, S. (2015). Design and control concept for reconfigurable architecture. *Mechanical Design*. 137, 042302-1 – 042302-8. doi: 10.1115/1.4029617

Matheou, M. (2013). Kinetic Hybrid Structure: Design and Motion Planning, *E-Journal Archi - Doct, ENHSA Network*, 1(1), 90 – 104.

Phocas, M.C., Kontovourkis, O., Matheou, M. (2012). Kinetic Hybrid Structure Development and Simulation. *Architectural Computing*, 10(1), 67 – 86.

### **Refereed Conference**

#### **Proceedings Papers**

Phocas, M.C., Matheou, M. (2020). “Integral Design for Urban Transformation to a Smart City Core”. *EAAE-ARCC International Conference, Valencia, Spain, 11-14 November 2020*.

Matheou, M., Couvelas, A., Phocas, M.C. (2020). “Transformable building envelope design in architectural education”. *Procedia Manufacturing*, 44, 116 – 123, 1<sup>st</sup> International Conference on Optimization Driven Architectural Design, Amman, Jordan, 05-07 November 2019.

Matheou, M., Kallioras, N.A., Lagaros, N.D., Phocas, M.C. (2020). “Motion Sequence Optimization of a Planar Structure”. *Procedia Manufacturing*, 44, 310 – 317, 1<sup>st</sup> International Conference on Optimization Driven Architectural Design, Amman, Jordan, 05-07 November 2019.

Dimitriou, P., Phocas, M.C., Kontovourkis, O., Matheou, M., Christoforou, E.G. (2019). “Deployment and reconfiguration approach of linkage structures”. *ICETAD2019: International Conference on Emerging Technologies in Architectural Design, Toronto, Canada, 17-18 October 2019*.

Matheou, M., Chamseddine, I., Kokkolaras, M., Phocas, M.C. (2019). An Automated Reconfiguration Sequence Process of a Bar-Linkage Structure. *IASS 2019: FORM and FORCE, Barcelona, Spain, 07-10 October 2019*.

Matheou, M., Phocas, M.C., Christoforou, E.G. (2019). Scale Effect and Load-bearing Behavior of a Reconfigurable Hybrid Structure, The 4<sup>th</sup> International Conference on Structures and Architecture, Lisbon, Portugal, 24-26 July 2019.

Couvelas, A., Phocas, M.C., Maden, F., Matheou, M., Olmez, D. (2018). Daylight performance of an adaptive shading system integrated on a multi-storey office building. 13<sup>th</sup> Conference on Advanced Building Skins, Bern, Switzerland, 01-02 October 2018.

Couvelas, A., Matheou, M., Phocas, M.C. (2018). Analysis and development of an adaptive façade system integrated on a multi-storey office building. The Tenth International Conference on Engineering Computational Technology, Sitges, Barcelona, Spain, 04-06 September 2018.

Miranda, R., Fabbrocino, F., Matheou, M., Phocas, M.C., Fraternali, F. (2017). Adaptive Tensegrity Structures for Dynamic Facades of Energy Efficient Buildings. AIMETA 2017, XXII Conference, The Italian Association of Theoretical and Applied Mechanics, Salerno, Italy, 04-07 September 2017.

Matheou, M., Phocas, M.C., Christoforou, E.G., Muller, A. (2017). Comparative Analysis on Two Actuation Methods of 9-bar Systems through Kinematics Analysis and Experimental Testing. AIMETA 2017, XXII Conference, The Italian Association of Theoretical and Applied Mechanics, Salerno, Italy, 04-07 September 2017.

Matheou, M., Phocas, M.C., Muller, A., Christoforou, E.G. (2016). At the Crossroads of Architecture and Robotics: Control and Structural Concepts for a Reconfigurable Building. 25<sup>th</sup> International Conference Robotics Alpe-Adria-Danube Region, RAAD 2016, Belgrade, Serbia, 30 June-02 July 2016.

Matheou, M., Phocas, M.C., Christoforou, E.G. (2014). Integral Design of a Kinetic Hybrid Structure. Proceedings, 781-794, Voyatzaki, M., (ed.), What's the Matter? Materiality and Materialism at the Age of Computation, ENHSA International Conference, Barcelona, Spain, 04-06 September 2014.

Phocas, M.C., Christoforou, E.G., Matheou, M. (2013). Design and Simulation Analysis of a Kinetic Strut-Cable Beam Structure. Proceedings, 224-236, Ripley, C., Asefi, M., (eds.), International Conference on Adaptation and Movement in Architecture, ICAMA 2013, Toronto, Canada, 11-12 October 2013.

Matheou, M., Phocas, M.C., Christoforou, E.G., Mueller, A. (2013). Design and Control of an Adaptable Hybrid Steel Structure. Proceedings, Starbooks Structural Architecture, Seville, 239 – 244, Escrig, F., Sanchez, J., (eds.), New Proposals for Transformable Architecture, Engineering and Design, First International Conference Transformables-2013 in the Honor of Emilio Perez Pinero, Seville, Spain, 18-20 September 2013.

Christoforou, E.G., Mueller, A., Phocas, M.C., Matheou, M., Arnos, S. (2013). Towards Realization of Shape-Controlled Adaptable Buildings following a Robotics Approach. ASME 2013 – International Design Engineering Technical Conferences (IDETC) and Computers and Information in Engineering Conference (ICE), Portland, Oregon, U.S.A., 04-07 August 2013.

Matheou, M., Phocas, M.C., Christoforou, E.G. (2013). Adaptable Hybrid Steel Structures. Kinetic Modeling and Simulation Study. Cruz, P.J.S. (ed.), Structures and Architectures: Concepts, Application and Challenges, Second International Conference on Structures & Architecture, ICSA 2013, Proceedings, 1419-1426, Guimaraes, Portugal, 24-26 July 2013.

Phocas, M.C., Kontovourkis, O., Matheou, M. (2011). Integrated Design of a Kinetic Prototype Structure. A Case Study. Stacey, F., Stacey, M., (eds.), Adaptive Architecture, An International Conference at the Building Centre, London, U.K., 03-05 March 2011.