

George Tryfonos, B.Sc.

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EDUCATION AND CERTIFICATIONS

- 2013-current **PhD candidate**
Department of Architecture, University of Cyprus, Nicosia, Cyprus
Proposal title: 'Design, optimization and robotic fabrication of tensile mesh structure'
Supervisor: Odysseas Kontovourkis, Assistant Professor
- 2017 **Professional Training Instructor (AvAΔ)** EEK: E001722
- 2013 **Member of Cyprus Scientific Technical Chamber** (A152864)
- 2012 **Diploma of Architecture Engineer**
Department of Architecture, University of Cyprus, Nicosia, Cyprus
Diploma Thesis: "Air Adaptive Shelter" - Adaptive and Interactive Architecture and Embedded systems
Supervisor: Odysseas Kontovourkis, Assistant Professor
- 2011 **Bachelor of Science Degree in Architecture**
Department of Architecture, University of Cyprus, Nicosia, Cyprus

PUBLICATIONS

Journals

- 2016
- Kontovourkis, O., Tryfonos, G., 2015. **Design optimization and robotic fabrication of tensile mesh structures**: The development and simulation of a custom-made end-effector tool. International Journal of Architectural Computing. 2016.
- 2013
- Kontovourkis, O., Phocas, M.C., Tryfonos, G., **Prototyping of an Adaptive Structure based on Physical Conditions**. Architectural Computing, Multi-Science Co., Vol. 11, No. 2, pp. 205-226, June 2013 [22 p.]

Conference proceedings

- 2015
- Kontovourkis, O., Tryfonos, G., 2015. **Robotic Fabrication of Tensile Mesh Structures and Real Time Response**. The Development and Simulation of a Custom-Made End Effector Tool. In: B. Martens, G. Wurzer, T. Grasl, W. E. Lorenz, R. Schaffranek, eds. Proceedings of the 33th Conference on Education in Computer Aided Architectural Design in Europe: Real Time - Extending the Reach of Computation (Volume 2). Wien: Technical University of Wien, pp. 389-398
 - Kontovourkis, O., Tryfonos, G., 2015. **An additive robotic fabrication methodology for tensile mesh structures development**. Proceedings of the International Association of Shell and Spatial Structures (IASS) 2015 Annual Symposium on Future Visions. Amsterdam, The Netherlands [11 p.]
- 2014
- Kontovourkis, O., Tryfonos, G., 2014. **Physical input-driven offline robotic simulation through a feedback loop process**. In: E. M. Thompson, ed. Proceedings of the 32th Conference on Education in Computer Aided Architectural Design in Europe: Fusion - Data

- Integration at its best (Volume 1). Newcastle upon Tyne: Northumbria University, pp. 411-421
- 2013
- Kontovourkis, O., Phocas, M.C., Tryfonos, G., **Adaptive Prototyping Process as Mechanism towards a Holistic Architectural Design**. Stacey, M., (ed.), Prototyping Architecture: The Conference Papers, Building Centre Trust, London, pp. 92-105, February 2013 [14 p.]

UNIVERSITY TEACHING EXPERIENCE

- 2018
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Instructor for the ARH301.1 – Architectural Design VI – Architectural Technology (Spring semester)
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Instructor for the ARH550 - Specific Topics Recording and Documentation of Buildings and Sites (Spring semester)
- 2017
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Instructor for the ARH123 – Designs 2D CAD and 3D BIM (Spring semester)
- 2016
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Teaching assistant for the undergraduate course: ARH220 – Digital Architectural Communication Media (Fall semester)
Instructor: Odysseas Kontovourkis, Assistant Professor
- 2016-2014
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Instructor for the ARH123 – Designs 2D CAD and 3D BIM (Spring semester)
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Instructor for the ARH320 – Digital Designs using BIM (Fall semester)
- 2014-2011
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Teaching assistant for the undergraduate courses:
- ARH220 - Digital Architectural Communication Media (Fall semester)
Instructor: Odysseas Kontovourkis, Assistant Professor
 - ARH320 - Computer-Aided Design (Spring semester)
Instructor: Odysseas Kontovourkis, Assistant Professor
- Led designed course tutorials for the courses:
- Odysseas Kontovourkis, PhD., George Tryfonos 'Rhinoceros 4, Panelling Tools and Rapid Prototype (Part 1)' Department of architecture, University of Cyprus Nicosia, Cyprus, 2012
 - Odysseas Kontovourkis, PhD., George Tryfonos 'AutoCAD Architecture Tutorial - Essential Training' Department of architecture, University of Cyprus Nicosia, Cyprus, 2011
 - Odysseas Kontovourkis, PhD., Ioanna Theodosiou, George Tryfonos 'Allplan Tutorial - Essential Training' Department of architecture, University of Cyprus Nicosia, Cyprus, 2011

RESEARCH AND MENTORING EXPERIENCE

- 2017
- Research Assistant, University of Cyprus, Nicosia, Cyprus**
Collaboration with Odysseas Kontovourkis, Assistant Professor for the development of a 3d clay printing industrial robotic mechanism
- 2016
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Third Supervisor. ARH-503 - Diploma Thesis: Robotic fabrication and additive manufacturing using industrial robotic simulation tools.
Student: Philip Michael.
- 2015
- Department of architecture, University of Cyprus, Nicosia, Cyprus**
Third Supervisor. ARH-503 - Diploma Thesis: Production of emergent, non-conventional forms using computational tools.
Student: Ifegenia Lambrou

- 2012 **Research Assistant, University of Cyprus, Nicosia, Cyprus**
Collaboration with Marios C. Phocas, Associate Professor for the research
'Parametric and Structural Analysis of hanging hybrid systems'.
- 2012-2010 **MesArch Lab, Department of architecture, University of Cyprus,
Nicosia, Cyprus**
3d Model making and animation using drawings and photographic material.

AWARDS AND SCHOLARSHIPS

- 2013 **Scholarship for doctorate studies**
Scholarship from Cyprus State Scholarship Foundation for doctorate degree
in Cyprus and abroad for the calendar year 2013
- Scholarship for graduate studies**
Scholarship from Graduate studies, University of Cyprus for the academic
year 2013/14
- 2012 **Second Prize in Architectural Competition**
Collaboration with M.C. Phocas Architects-Engineers for the competition
'European Architectural Competition for Morfou's Municipality and Cultural
Center' in Cyprus
- Honour Mention for the annual Award 'Lambrou and Thalia David for
Distinction in Architecture Synthesis'**
Distinction for the final diplomatic work in Architecture Synthesis and overall
score in the academic year 2011-2012
- Honour Mention in Architectural Competition**
Collaboration with 'IMA Architectural Studios - Ierides & Michael Architects'
and Christos Hadjichristos for the competition 'Architectural Competition for
the new offices of Cooperative Central Bank Ltd' in Cyprus
- 2011 **Third Prize in Architectural Competition**
Collaboration with M.C. Phocas Architects-Engineers and 'IMA Architectural
Studios - Ierides & Michael Architects' for the competition 'Cyprus
architecture Competition for the construction of two footbridges in Paphos
municipality' in Cyprus
- 2007 **Honour "Civil Engineers Association and Architects Association"**
Distinction in Architectural Design I and II during the academic year 2007-
2008)

CONFERENCE PRESENTATIONS AND EXHIBITIONS

- 2015 **Conference Presentation 'Robotic Fabrication of Tensile Mesh
Structures and Real Time Response'**
Academic conference 'Real Time', eCAADe 2015 - 33rd Annual Conference
Vienna University of Technology, Vienna, Austria
- Conference Presentation 'An additive robotic fabrication methodology
for tensile mesh structures development'**
Academic conference 'Future Visions', IASS 2015 Annual Symposium -
International Association of Shell and Spatial Structures, Amsterdam, The
Netherlands
- 2014 **Conference Presentation 'Physical input-driven offline robotic
simulation through a feedback loop process'**
Academic conference 'Fusion', eCAADe 2014 - 32rd Annual Conference,
Northumbria University, Newcastle, United Kingdom
- 2013 **Exhibition 'Research by Design. Thesis 2012, Department of
Architecture, University of Cyprus'**
Attendance in international exhibition in Cyprus House, New York with
Diploma project 'Air Adaptive Shelter'

- Conference Presentation 'Adaptive Prototyping Process as Mechanism towards a Holistic Architectural Design'**
Academic conference 'Prototyping Architecture Conference', Building Centre Trust, London, UK,
- 2012 **Exhibition 'European Architectural Competition for Morfou's Municipality and Cultural Center'**
Attendance in exhibition - Melina Merkouri Hall, Nicosia, Cyprus
- Exhibition 'Architectural Competition for the new offices of Cooperative Central Bank Ltd'**
Attendance in exhibition - Hilton, Nicosia, Cyprus
- 2011 **Exhibition 'Cyprus architecture Competition for the construction of two footbridges in Paphos municipality'**
Attendance in exhibition - Cultural Centre - Old Electricity Authority, Paphos, Cyprus
- 2008 **Exhibition 'In the Making: The Department of Architecture at the University of Cyprus'**
Attendance in international exhibition in School of Architecture, Pratt Institute, New York, USA with ARH 100 Architectural design I and ARH 101 Architectural design II projects

PROFESSIONAL SERVICE

- 2018 **Completion eVolo - 2018 Skyscraper Competition**
Collaboration with Associate Professor M.C. Phocas at University of Cyprus for the international interdisciplinary competition 'eVolo 2018 Skyscraper Competition' for the for the E-Volo magazine with the project: Self-Sustainable High-Rise Components Network.
SocialSpace Academy
Instructor for BIM with Revit in architecture
- SocialSpace Academy**
Instructor for AutoCAD 2D: Design 2d technical drawings
- 2017 **SocialSpace Academy**
Instructor for Digital Skill: Effective Computer Handling for people above 35years old (AvAA)
- 2016 **International Competition 'Second Nature'**
Participate in international competition: Paphos, Cyprus. Collaboration with Odysseas Kontovourkis, Assistant professor, University of Cyprus, Panagiota Konatzi, PhD Candidate, University of Cyprus and Stella Christofi, Artist
- 2014 **International Competition 'PLASTICITY'**
Participate in international digital design to fabrication competition with the project 'Force-base surface plasticity', TexFab, 2014. Collaboration with Odysseas Kontovourkis, Assistant professor, University of Cyprus and Panagiota Konatzi, PhD Candidate, University of Cyprus
Junior Architect, M.C. Phocas Architects-Engineers, Nicosia, Cyprus
Participate in international interdisciplinary competition 'eVolo 2014 Skyscraper Competition' for the for the E-Volo magazine with the project Skyscraper 2014: High-Rise_City@Net.
- 2013 **International Competition 'SKIN'**
Participate in international digital design to fabrication competition with the project 'Adaptive inflatable façade', TexFab, 2013. Collaboration with Odysseas Kontovourkis, Assistant professor, University of Cyprus
Junior Architect, M.C. Phocas Architects-Engineers, Nicosia, Cyprus

- 2012 Participate in international interdisciplinary competition 'eVolo 2013 Skyscraper Competition' for the for the E-Volo magazine with the project Skyscraper 2013: High-Rise Traffic-Port.
Architectural Assistant, M.C. Phocas Architects-Engineers, Nicosia, Cyprus
Participate in European architectural competition for Morfou's Municipality and Cultural Center in Cyprus
Architectural Assistant, IMA Architectural Studios - Ierides & Michael Architects
- 2011 Participate in European architectural competition for the new offices of Cooperative Central Bank Ltd' in Cyprus
Architectural Assistant, M.C. Phocas Architects-Engineers, Nicosia, Cyprus
Participate in European architecture competition for the construction of two footbridges in Paphos municipality in Cyprus
Architectural Assistant, M.C. Phocas Architects-Engineers, Nicosia, Cyprus
- 2010 Participate in international architecture competition for the design of Municipal market and public parking space in Larnaca, Cyprus
Collaboration, George D. Michael Architectural
3D model making and project visualization (2010-2018)
Architectural Assistant, Theo Devid Architects
- 2009 Participate in the design of the Paralimni, Famagusta school at Cyprus
Architectural Assistant, Theo Devid Architects
- 2008 Participate in the design and model making of 'Filelefteros new offices' project
Architectural Assistant, IMA Architectural Studios - Ierides & Michael Architects
Participate in European architectural competition for the construction of the Dekelia Municipality Building in Cyprus

TECHNICAL AND COMPUTER SKILLS

- Digital tools
- 3d Modeling: Rhinoceros 2D and 3D modelling, AutoCAD 2D and 3D modelling, 3D Max Studio
 - Parametric design, form finding and simulation: Grasshopper, Kangaroo, Karamba 3d(FEA),
 - Robotic programming: HAL robotics
 - Parametric optimization: Octopus, Galapagos
 - Structural Analysis: CSi SAP2000 FEA
 - BIM: Revit 2D and 3D modelling, Allplan 2015
 - Artlantis Studio for Rendering
 - Adobe Suite: Photoshop, Illustrator, In-Design
 - Corel Video Studio
 - MsOffice: Word, Excel, Power Point
- Fabrication tools
- Laser cutting
 - 3D Printer (Rapid Prototyping)
 - IRC5 Industrial Robot Controller - IRB2600