

Georgios P. Kontoudis

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Control Systems Laboratory
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Research interests: Robotics, Prosthetics, Bio-Inspired Design, Mechanisms, Grasping and Manipulation.

EDUCATION

Diploma (MSc), National Technical University of Athens *2012-2016*
School of Mechanical Engineering, National Technical University of Athens (NTUA), Greece
Thesis Title: “Anthropomorphic, Underactuated, Compliant Robot Hands with a Selectively Lockable Differential Mechanism: Towards Affordable Prostheses”
Advisor: Prof. Kostas J. Kyriakopoulos (Director of Control Systems Laboratory - NTUA - Greece)

BSc, Piraeus University of Applied Sciences *2005-2010*
Department of Mechanical Engineering, Piraeus University of Applied Sciences, Greece
Thesis Title: “Analysis, Review and Optimization of Compression and Air-Conditioning System at Short Take Off and Landing (STOL) Aircrafts”

RESEARCH EXPERIENCE

Graduate Research Assistant *April 2014 - present*
Control Systems Laboratory
School of Mechanical Engineering, National Technical University of Athens, Greece
Advisor: Prof. Kostas J. Kyriakopoulos (Director of Control Systems Laboratory - NTUA - Greece)

AWARDS & HONORS

Hackaday Prize, 2nd place among 900 projects *USA 2015*
With the OpenBionics Initiative. Hackaday.io is a hosting site for documenting open-source hardware and software projects.

Robotdalen Innovation Award, 1st place *Sweden 2015*
With the OpenBionics Initiative. Robotdalen is a Swedish robotics initiative enabling commercial success of new ideas and research within robotics.

IEEE RAS Student Travel Award (IROS) *Germany 2015*
To attend and present a paper in the 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems.

PROFESSIONAL EXPERIENCE

Site Supervisor

September 2013 - August 2015

Sychem S.A., Athens, Greece

- Provide guidance to industrial maintenance crew of 6 people for a desalination plant with yearly contract of \$1M.
- Supervise, inspect the installation, modification and commissioning of electromechanical systems.

Mechanical Engineer

October 2010 - September 2013

Sychem S.A., Athens, Greece

- Monitoring and commissioning of desalination plants.
- Handle deadlines, variable workloads, and being on call 24-hours.

Aircraft Maintenance Engineer Trainee

May 2008 - January 2010

Olympic Aviation, Athens, Greece

- Perform engineering work of maintenance and modification of aircraft for flight.
- Carrying out D-check (“heavy maintenance visit”) of 2 Bombardier Dash 8-100 aircrafts. This check involves the entire airplane check apart for inspection and overhaul.

PUBLICATIONS

Peer-Reviewed Conference Publications

[1] **George P. Kontoudis**, Minas V. Liarokapis, Agisilaos G. Zisimatos, Christoforos I. Mavrogiannis and Kostas J. Kyriakopoulos, “Open-Source, Anthropomorphic, Underactuated Robot Hands with a Selectively Lockable Differential Mechanism: Towards Affordable Prostheses”, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Hamburg (Germany), 2015.

[BibTeX][PDF][Video]

Technical Reports

[2] **George P. Kontoudis**, Minas V. Liarokapis, Agisilaos G. Zisimatos, Christoforos I. Mavrogiannis and Kostas J. Kyriakopoulos, “How to Create Affordable, Anthropomorphic, Light-Weight Prosthetic Hands, *Control Systems Lab, School of Mechanical Engineering, National Technical University of Athens, October 2015.*

[PDF]

[1] Agisilaos G. Zisimatos, Minas V. Liarokapis, Christoforos I. Mavrogiannis, **George P. Kontoudis** and Kostas J. Kyriakopoulos, “How to Create Affordable, Modular, Light-Weight, Underactuated, Compliant Robot Hand”, *Control Systems Lab, School of Mechanical Engineering, National Technical University of Athens, January 2015.*

[PDF] [Video]

SERVICE ACTIVITIES

Member & Research Associate

OpenBionics is an open-source initiative for the development of affordable, light-weight, modular, underactuated robot hands and prosthetic devices, that can be easily reproduced using off-the-shelf materials.

<http://www.openbionics.org/>

Reviewer

- InTech, International Journal of Advanced Robotic Systems

TALKS & PRESENTATIONS

[1] “Open-Source, Anthropomorphic, Underactuated Robot Hands with a Selectively Lockable Differential Mechanism: Towards Affordable Prostheses”, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Hamburg (Germany), 2015.

SKILLS

Languages: English, Greek(native)

Operating Systems: Windows, Linux

Design and Simulation Software: SolidWorks, SolidCAM, AutoCAD, ANSYS Mechanical, Slic3r, ProCAST, PSpice

Programming Languages: C, Matlab, Arduino, HTML–CSS, V+

Software Applications: L^AT_EX, Adobe Photoshop

Other Software: Ms Office

Other Skills: Laser cutting, 3D printing

MEMBERSHIPS & SOCIETIES

Memberships

IEEE - Student Member *2015 - present*

Societies

IEEE - Robotics and Automation *2015 - present*

Scientific Society of Technological Education Engineers *2010 - present*

MEDIA COVERAGE

3ders: “OpenBionics adds NFC ready fingers for 2015 Hackaday Prize finals” *November 5, 2015*

Atmel: “1:1 interview with Hackaday Prize finalist OpenBionics” *November 3, 2015*

Evertiq: “OpenBionics: Affordable Prosthetic Hands” *October 23, 2015*

MTV Greece: “Interview regarding OpenBionics” *October 8, 2015*

Hackaday: “10 finalist projects prove we can save the world” *October 5, 2015*

Robotdalen: “OpenBionics prosthesis winner of Robotdalen Innovation Award 2015” *September 4, 2015*

Dimokratia News: “Affordable Prosthetic Hands” *July 12, 2015*

GoodNews.gr: “The most Affordable Prosthetic Hands will be made in Greece” *May 8, 2015*

RoboHub: “OpenBionics prosthetic hands” *April 9, 2015*

Hackaday: “Hackaday - Prosthetics Projects” *April 3, 2015*

3D Print: “OpenBionics: Open Source Robotic Prosthetic Hands” *March 18, 2015*

3ders: “Greek OpenBionics unveils affordable, light-weight 3D printed bionic hands” *March 18, 2015*

Other Interests & Hobbies: Kick Boxing, Basketball, Scouting, Reading, Travelling & Music.