# George P. Kontoudis

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# **EDUCATION**

PhD, Virginia Tech, USA Kevin T. Crofton Department of Aerospace and Ocean Engineering Advisor: Prof. Daniel Stilwell Co-advisor: Prof. Kyriakos G. Vamvoudakis Current GPA: 4.0/4.0	Present
MSc, Virginia Tech, USA Department of Mechanical Engineering Advisor: Prof. Tomonari Furukawa Co-advisor: Prof. Kyriakos G. Vamvoudakis GPA: 4.0/4.0 (Coursework finished)	Present
Diploma (MSc), National Technical University of Athens, Greece School of Mechanical Engineering Advisor: Prof. Kostas J. Kyriakopoulos Co-advisor: Prof. Minas Liarokapis Grade: 7.76/10 (top 20%)	2016
BSc, Piraeus University of Applied Sciences, Greece Department of Mechanical Engineering	2010
RESEARCH EXPERIENCE	
Graduate Research Assistant Autonomous Systems and Control Laboratory Virginia Tech, USA	August 2018 - Present
Graduate Research Assistant Computational Multiphysics Systems Laboratory Virginia Tech, USA	May 2017 - August 2018
Member & Research Associate The OpenBionics Initiative	September 2014 - Present
Research Assistant Control Systems Laboratory National Technical University of Athens, Greece	April 2014 - March 2016
TEACHING EXPERIENCE	
Graduate Teaching Assistant Department of Mechanical Engineering, Virginia Tech, USA	August 2016 - May 2017
<ul><li>Lectured 80 students in a senior level, control systems lab.</li><li>Guided 20 students in a series of 8 junior level, mechanical engineering labs.</li></ul>	Fall 2016 Spring 2017
AWARDS & HONORS	
NTUA Thomaideion Award Hackaday Prize, $2^{nd}$ place (among 900 projects) Robotdalen Innovation Award, $1^{st}$ place IEEE/RAS Student Travel Award (IROS)	Greece 2016 USA 2015 Sweden 2015 Germany 2015

#### PROFESSIONAL EXPERIENCE

## **Senior Mechanical Engineer**

March 2016 - June 2016 Heliix Inc., Athens, Greece

May 2008 - January 2010

· Worked on the product design & development of a waste heat recovery device

**Site Supervisor** September 2013 - August 2015

Sychem S.A., Athens, Greece

· Provided guidance to industrial maintenance crew of 6 people for a desalination plant

**Mechanical Engineer** October 2010 - September 2013

Sychem S.A., Athens, Greece

· Monitored and commissioned desalination plants

**Aircraft Maintenance Engineer Trainee** 

Olympic Aviation, Athens, Greece

Performed engineering work of maintenance and modifications on aircrafts

#### **PUBLICATIONS**

# **Referred Conference Publications**

- [C1] George P. Kontoudis, Minas Liarokapis, Kyriakos G. Vamvoudakis, and Tomonari Furukawa "A Modular Actuation Mechanism for Adaptive Robotic Fingers," IEEE International Conference on Cyborg and Bionic Systems (CBS), Shenzhen, China, 2018.
- [C2] Kyriakos D. Tsoukalas, George P. Kontoudis, and Kyriakos G. Vamvoudakis, "Active-Bayesian Learning for Cooperation Connectivity in Dynamic Cyber-Physical-Human Systems," *IEEE Symposium on Adaptive Dynamic Programming* and Reinforcement Learning (ADPRL), Honolulu, USA, 2017. (invited paper)
- [C3] George P. Kontoudis, Minas 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.

# **Other Publications**

- [O1] George P. Kontoudis, Minas Liarokapis, Agisilaos G. Zisimatos, Christoforos I. Mavrogiannis, and Kostas J. Kyriakopoulos, "How to Create Affordable, Anthropomorphic, Light-Weight Prosthetic Hands," Control Systems Lab, National Technical University of Athens, Athens, Greece, October 2015.
- [O2] Agisilaos G. Zisimatos, Minas 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, National Technical University of Athens, Athens, Greece, January 2015.

# **Theses**

[T1] George P. Kontoudis "Design and Development of an Underactuated, Anthropomorphic Robot Hand," Diploma Thesis, National Technical University of Athens (NTUA), Athens, Greece, March 2016. (In Greek)

# **TALKS & PRESENTATIONS**

· "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.

# SERVICE ACTIVITIES

Reviewer	
· International Conference on Robotics and Automation (ICRA)	2018
· American Control Conference (ACC)	2018
· International Conference on Intelligent Robots and Systems (IROS)	2018
· International Conference on Biomedical Robotics and Biomechatronics (BioRob)	2018
· Mediterranean Conference on Control and Automation (MED)	2018
· International Journal of Advanced Robotic Systems (IJARS)	2015 - 2016

### **SKILLS**

LanguagesEnglish, Greek(native)Operating SystemsLinux, ROS, Windows

**Design and Simulation Software** Solidworks, AutoCAD, ANSYS, Slic3r, ProCAST, PSpice, Cura

**Programming** Pyhton, C/C++, MATLAB, HTML/CSS, LATEX

Other Skills Laser cutting, 3D printing

### RELEVANT COURSEWORK

**Robotics** Advanced Experimental Robotics, Bayesian Robotics, Motion Planning Analysis

**Control Theory** Optimization Techniques, Cyber-Physical Systems & Distributed Control, Nonlinear Systems Theory,

Linear Control Theory, Adaptive Control Systems

### **MEMBERSHIPS & SOCIETIES**

Memberships	
· IEEE - Student Member	2015 - Present
· ASME - Student Member	2016 - Present
Societies	
· IEEE - Robotics and Automation Society (RAS)	2015 - Present
· IEEE - Control Systems Society (CSS)	2017 - Present