Spyros Maniatopoulos

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Education

08/2012 - now **Cornell University**, Sibley School of Mechanical & Aerospace Engineering, Ithaca, NY, USA
- **PhD Student in Mechanical Engineering** - Concentration: **Dynamics, Systems, and Controls**
- Working with Prof. Hadas Kress-Gazit at the Autonomous Systems Lab (ASL)

09/2005 - 03/2012 **National Technical University of Athens (NTUA)**, Athens, Greece
- Diploma in Mechanical Engineering (5 year-long degree) - Specialization: Air and Ground Transport Vehicles
- Diploma degree Grade: 7.71/10 - "*Very Good*"
- Thesis: "*Development of Predictive Navigation Schemes for Aircraft-like Vehicles*"
- Diploma Thesis Advisor: Professor Kostas J. Kyriakopoulos, Control Systems Lab (CSL)

09/2002 - 06/2005 **High School,** Athens, Greece (Grade: 18.5/20, Distinction)

Publications

[1] ACC 2012 **Spyros Maniatopoulos**, Dimos V. Dimarogonas, and Kostas J. Kyriakopoulos,
"*A Decentralized Event-based Predictive Navigation Scheme for Air-Traffic Control*",
The 2012 American Control Conference, Montréal, Canada, June 2012

[2] NGCUV 2012 Dimitra Panagou, **Spyros Maniatopoulos**, and Kostas J. Kyriakopoulos,
"*Control of an Underactuated Underwater Vehicle in 3D Space under Field-of-View Constraints*",
IFAC Workshop on Navigation, Guidance and Control of Underwater Vehicles, Porto, Portugal, April 2012

[3] ACC 2013 **Spyros Maniatopoulos,** Dimitra Panagou, and Kostas J. Kyriakopoulos,
"*A Model Predictive Control Scheme for the Navigation of a Nonholonomic Robot with Field-of-View Constraints*",
The 2013 American Control Conference, Washington DC, USA, June 2013

Professional / Research Experience

Research Interests Formal Methods in Robotics, Controller Synthesis, Hybrid Systems

1/2013 - now **Graduate Research Assistant**, *Autonomous Systems Lab* (ASL), Cornell University, NY, USA

6/2010 - 7/2012 **Research Assistant**, *Underwater Robotics Group*, Control Systems Lab, NTUA, Greece
- Worked on the navigation and control of underactuated underwater vehicles
  Project PANDORA EU, FP7, 2011 – 2014):
  "Persistent Autonomy through Learning, Adaptation, Observation and Re-planning"
- Assisted in the management of CSL's Underwater Robotics Group
- Assisted in the management of project R3 - COP:
  "Resilient Reasoning Robotic Co-operating Systems", ARTEMIS Joint Undertaking, 2010 – 2013
- Worked on project iFly (EE, FP6-2005-TREN 4, 2007 – 2011) as part of my thesis:
  "Safety complexity and responsibility based design and validation of highly automated air traffic management"

5/2011 - 6/2011 **Visiting Student**, Automatic Control Lab, KTH Royal Institute of Technology, Stockholm, Sweden
- Invited by Prof. Dimos V. Dimarogonas to work on the decentralization of predictive navigation schemes

06/2009-09/2009 **Summer Internship,** Kallidromo Railway Tunnel, Northern Construction Site, J&P Avax S.A., Greece
- Trainee at the Department of Maintenance and Operation of Site Facilities

Skills

- Programming: Python, C/C++/C#,, FORTRAN
- Software: Matlab/Simulink, Mathematica, AutoCAD 2D, LaTeX

Languages

- English (fluent – CPE Uni. of Cambridge, CPE Uni. of Michigan, TOEFL iBT score: 115/120),
  French (moderate – DELF A1-A4), Spanish (basic – not certified), Greek (native)