

CURRICULUM VITÆ

Personal Information

Name Dr. Ioannis N. Davliakos
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Education

01 / 2000 - 07 / 2007
(military service
02 / 2000 - 10 / 2001) **National Technical University of Athens (NTUA).**
Department of Mechanical Engineering.
Section of Mechanical Design and Control Systems.
PhD degree.
PhD Thesis: "Model Based Control of a Hydraulic Driven Stewart Platform"

09 / 1998 - 10 / 1999 **National Technical University of Athens (NTUA).**
Interdepartmental Postgraduate Studies (IPS), "Automation Systems", specialization:
"Automation Control & Robotic Systems".
Master Thesis: "Analysis, Design and Control of an Electric Driven Stewart Platform".

10 / 1992 - 07 / 1998 **Polytechnic Faculty of Aristotle University of Thessaloniki (AUTH).**
Department of Mechanical Engineering.
Diploma Thesis: "Features suspension effect of the traveling vehicle response".

Professional Experience

05 / 2007 - Today NTUA, Department of Mechanical Engineering.
Laboratory Teaching Staff & Research Associate.

07 / 2003 - Today NTUA, Department of Mechanical Engineering.
Web Administrator.

10 / 2001 - 11 / 2011 Design and supervision of electromechanical buildings installations.

01 / 2002 – 01 / 2003 NTUA, Department of Mechanical Engineering.
Assistant administrator at the PC Lab. Part time.

07 / 1998 - 08 / 1998 Public Power Corporation (PPC) S.A., Central Thessaloniki. Training.

03 / 1998 - 06 / 1998 EUROCONSULTANTS S.A. Training.

07 / 1996 - 08 / 1996 Office of electromechanical design and planning of Mr. Nicolas Davliakos – Electrical &
Mechanical engineer. Scientific assistant.

06 / 1995 - 07 / 1995 PPC S.A. Rouf, Athens. Training.

Society Memberships

12 / 2005 - Today Hellenic Association of Mechanical and Electrical Engineers

10 / 1998 - Today T.C.G. (Technical Chambers of Greece)

Awards & Distinctions

2011 **Who's Who in the World 2011** (28th Edition).

2005, 2006, 2007 **National Technical University of Athens (NTUA).**
Thomaidion award.

09 / 1998 - 06 / 1999 **National Technical University of Athens (NTUA).**
Scholarship of the Interdepartmental Postgraduate Studies "Automation Systems".

Publications

➤ Journal Publications

- 2009 **Davliakos, I.** and Papadopoulos, E., "A Model-Based Impedance Control of a 6-dof Electrohydraulic Stewart Platform," *European Journal of Control*, Vol. 15, No. 5, 2009, pp. 560-577.
- 2008 Fraczek J., Wojtyra M., **Davliakos I.**, Papadopoulos E., "Simulational Study of a Hydraulically Driven Parallel Manipulator Control System," *Journal of KONES Powertrain and Transport*, Vol. 15, No. 1, 2008, pp. 51-67.
- 2008 **Davliakos, I.** and Papadopoulos, E., "Model Based Control of the 6-dof Electrohydraulic Gough-Stewart Platform," *Mechanisms and Machine Theory*, Vol. 43, No. 11, 2008, pp. 1385-1400.
- 2004 Papadopoulos, E. and **Davliakos, I.**, "A Systematic Methodology for Optimal Component Selection of Electrohydraulic Servosystems," *International Journal of Fluid Power*, Vol. 5, No. 2, 2004, pp. 15-24.

➤ Conference Proceedings

- 2007 **Davliakos I.**, Fraczek J., Papadopoulos E., Wojtyra M., "Simulation of the Control System of the Hydraulic Parallel Robot (in polish)," *Proceedings of the X Conference FEM in CAD/CAM/CAE*, Kazimierz Dolny, November 13-16, 2007, Poland.
- 2007 **Davliakos, I.** and Papadopoulos, E., "A Model-Based Impedance Control of a 6-dof Electrohydraulic Stewart Platform," *Proc. European Control Conference, (ECC '07)*, 2-5 July 2007, Kos, Greece.
- 2007 **Davliakos, I.**, and Papadopoulos, E., "Model-Based Position Tracking Control for a 6-dof Electrohydraulic Stewart Platform," *Proc. 15th IEEE Mediterranean Conference on Control and Automation*, June 27-29, 2007, Athens, Greece.
- 2007 **Davliakos, I.**, Fraczek, J., Papadopoulos, E., and Wojtyra, M., "The Influence of Dynamics Model Simplifications on an Electrohydraulic Stewart Platform Model-Based Control Process," *Proceedings Multibody Dynamics 2007, ECCOMAS*, Milano, 25-28 June 2007.
- 2006 **Davliakos, I.**, Zafiris, A. and Papadopoulos, E., "Joint Space Controller Design for Electrohydraulic Servos," *Proc. 2006 IEEE International Symposium on Computer-Aided Control Systems Design, (CACSD '06)*, October 4-6, 2006, Technische Universität München, Munich, Germany.
- 2006 **Davliakos, I.** and Papadopoulos, E., "Invariant Error Dynamics Controller for a 6-dof Electrohydraulic Stewart Platform," *Proc. 6th CISM-IFTOMM Symposium on Robot Design, Dynamics, and Control, (ROMANSY '06)*, June 20-24 2006, Warsaw, Poland.
- 2005 **Davliakos, I.**, Chatzakos, P. and Papadopoulos, E., "Development of a Model-Based Impedance Controller for Electrohydraulic Servos," *Proc. Int. Conference on Robotics and Applications*, Oct. 31-Nov. 2 2005, Cambridge, MA, USA.
- 2005 **Davliakos, I.** and Papadopoulos, E., "Development of a Model-Based Nested Controller for Electrohydraulic Servos," *Proc. 13th Mediterranean Conference on Control and Automation*, June 27-29, 2005, Limassol, Cyprus.

➤ Other Publications

- 2013 **I. Davliakos**, and E. Papadopoulos, "Water Hydraulics," *Technical Review*, Vol. 247, January 2013, pp. 22-24, in Greek.
- 2010 **I. Davliakos**, and E. Papadopoulos, "New Application Fields of Hydropneumatics," *Power Transmission*, Vol. 144, November 2010, pp. 18-22, in Greek.
- 2009 **I. Davliakos**, and E. Papadopoulos, "Model-Based Control of Electrohydraulic Servosystems," *1st Panhellenic Conference on Robotics*, Athens, 23-24 February 2009, in Greek.
- 2008 **I. Davliakos**, and E. Papadopoulos, "Hydropneumatic Systems of Automation," *Power Transmission*, Vol. 153, December 2008, pp. 22-32, in Greek.
- 2007 D. Bargiotas, S. Voliotis, I. Dedes, A. Ktena, O. Ladoukakis, C. Manasis, **I. Davliakos**, E. Papadopoulos, K. Tzifas, T. Thomaidis, "Development of flexible and reliable automated store system," *Research Results Publicity Day "ARCHIMEDES II – Support of Research Teams at the TEI of Chalkida"*, December 2007.
- 2006 **I. Davliakos**, P. Chatzakos, P. Vartholomeos, E. Papadopoulos, "Actuator technologies for

automations," *Plant Management*, Vol. 195, July-September 2006, pp. 64-69, in Greek.

2006

G. Rekleitis, P. Vartholomeos, **I. Davliakos**, P. Chatzakos, E. Papadopou-los, "Robotic systems in production," *Plant Management*, Vol. 195, July-September 2006, pp. 70-75, in Greek.

Reviewer

Control Engineering Practice
IEEE Transactions on Automatic Control
IEEE Transactions on Control Systems Technology
International Journal of Robust and Nonlinear Control
Journal of Dynamic Systems, Measurement and Control
Mechanism and Machine Theory
Simulation Modelling Practice and Theory
Electrohydraulic Servosystems, Robotics, Control of Dynamic Systems, Exoskeletons.

Teaching Experience

- 2014 - Today **NTUA, Department of Mechanical Engineering.**
Assistant work. Exercises in the lesson "Intelligent Control Systems & Robotics" (2.3.2274.9, 9th semester) (taught by Prof. E. Papadopoulos).
- 2011 - Today **NTUA, Department of Mechanical Engineering.**
Assistant work and Lab in the lesson "Introduction to Theory and Technology of Automatic Control" (2.3.2007.6, 6th semester (taught by Prof. E. Papadopoulos).
- 2003 - Today **NTUA, Department of Mechanical Engineering.**
Assistant work and Lab. Exercises in the lessons "Introduction to Electrical Circuits and Systems" (2.3.2242.9, 2nd semester), and "Electromechanical Systems" (2.3.2245.3, 3rd semester), (taught by Prof. E. Papadopoulos).
- 28 / 06 / 2014 Organization and presentation of a 5-hour training programme at the company SELECTED TEXTILES S.A. (Farssala), titled, "Hydraulic Control Systems". Cooperation with the company FORUM Inter-national Training & Consulting Ltd.
- 14, 21 / 11 / 2009 Organization and presentation of a 8-hour training programme at the company TUPPERWARE HELLAS S.A. (Thebes of Boeotia), titled, "Basic knowledge of Hydraulics for Technicians". Cooperation with the company FORUM Inter-national Training & Consulting Ltd.
- 11 / 06 / 2009 Organization and presentation of a 6-hour training programme at the company ANDROMEDA S.A. (Vonitsa of Etoloakarnania), titled, "Basic principles of Hydraulic Circuits". Cooperation with the company FORUM Inter-national Training & Consulting Ltd.
- 18, 23, 25 / 10 / 2007 Organization and presentation of a 12-hour training programme at the company HALCOR S.A. (Inofita of Boeotia), titled, "Electrical maintenance: Electrohydraulic Automations". Cooperation with the company FORUM Inter-national Training & Consulting Ltd.

Miscellaneous

- 22-23 / 06 / 2006 Presentation of work at a 2-day exhibition by the TCG, "Optimum design of high performance electrohydraulic servosystems using the power, the weight or the cost as criteria", *Greek Research and Technology Days-European Cooperation*, Technical Chambers of Greece, June 22-23, 2006, Athens.
- 07 / 1999 - 09 / 1999 Steering Committee of the 1st International Pedagogic School Conference: "Nonlinear Control Network" (NCN).

Research Interests

Electrohydraulic Servosystems, Robotics, Control of Dynamic Systems, Exoskeletons.