

Δρ. Ευάγγελος Παπαδόπουλος

Καθηγητής ΕΜΠ

Προσωπικά Στοιχεία

Στοιχεία επικοινωνίας

Τομέας ΜΚΑΕ, Σχολή Μηχανολόγων Μηχανικών, ΕΜΠ

Τηλ. 210-772-1440, Φαξ 210-772-1455

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egpapado@central.ntua.gr

Οικ. κατάσταση

Παντρεμένος, δύο παιδιά

Εκπαίδευση

Τίτλος

Πανεπιστήμιο

Έτος

Δίπλωμα Μηχανολόγου Μηχ.

Εθνικό Μετσόβιο Πολυτεχνείο (2^{ος}/150)

10/81

M.S.M.E.

Massachusetts Institute of Technology (MIT)

09/83

Ph.D. (M.E.)

Massachusetts Institute of Technology (MIT)

02/91

Ακαδημαϊκή Εμπειρία

Θέση

Περίοδος

Ίδρυμα

Καθηγητής

2008-

Εθνικό Μετσόβιο Πολυτεχνείο

Αναπλ. Καθηγητής

2002-2008

Εθνικό Μετσόβιο Πολυτεχνείο

Επικ. Καθηγητής

1997-2002

Εθνικό Μετσόβιο Πολυτεχνείο

Adjunct Professor

1997-2004

McGill University

Associate Professor (tenure)

1997

McGill University

Assistant Professor

1991-1997

McGill University

Lecturer

1991

Massachusetts Institute of Technology

Researcher

1987-1990

Massachusetts Institute of Technology

Αναλυτής Συστημάτων

1985-1987

ΓΕΝ/ ΓΕΤΕΝ, Πολεμικό Ναυτικό

Researcher

1982-1984

Massachusetts Institute of Technology

Διακρίσεις & Υποτροφίες

Τιμητικός Τίτλος Υποτρόφου ΙΚΥ (1977-81), Βραβείο και Υποτροφία 17ης Νοέμβρη, Τεχνικό Επιμελητήριο Ελλάδας (1978-81), Θωμαΐδειο Βραβείο και Υποτροφία, ΕΜΠ, (1981), Best Paper: CSME Transactions (1995), Competition OCTAS 1998, Fédération de l'informatique du Québec, OCTAS de l'Excellence, 1st Prize. First Prize: Venture 2002 Competition. 13th IEEE Mediterranean Conference on Control and Automation, Best presentation in MoA03.7. 16th Pan-Hellenic Urological Conference, 1st Prize. Finalist Best Paper Award, Advanced Intelligent Mechatronics (AIM) 2007, Apple Distinguished Educator, (1996-).

Επιστημονικές Εταιρείες

American Society of Mechanical Engineers ASME (Member), Institute of Electrical and Electronics Engineers IEEE (Senior Member), American Institute of Aeronautics and Astronautics AIAA (Senior Member), International Federation for the Promotion of Mechanism and Machine Science (IfToMM) (Member), Τεχνικό Επιμελητήριο της Ελλάδος (μέλος), Sigma Xi MIT (Member), Canadian Council for Theory of Machines and Mechanisms, (Executive Committee Member), 9/91 - 9/93.

Ερευνητικά Ενδιαφέροντα	Ρομποτική, Μηχανοτρονική, Δυναμική και Έλεγχος Δυναμικών Συστημάτων, Μοντελοποίηση και Σχεδιασμός Συστημάτων.
Σπουδαστές	Απόφοιτοι. ΕΜΠ: 6 Ph.D., 40 Μεταπτυχιακοί, 43 Διπλωματούχοι ΜΜ. (7 καλύτερες Διπλωματικές/Μεταπτυχιακές, 1 καλύτερο Ph.D. στο ΕΜΠ). <i>McGill</i> : 3 Ph.D., 7 M.Eng. Ερευνητική Ομάδα. ΕΜΠ: 2 Post-Docs, 9 Ph.D., 3 Μεταπτυχιακοί, 8 Διπλωματικοί, 5 Προπτυχιακοί Σπουδαστές.
Χρηματοδότηση	McGill U.: NSERC (The Dynamics, Planning, and Control of Robotic Systems in Space, \$112K), FCAR (Planification et Commande de Force des Systèmes Robotiques Spatiaux, \$42K), SYNERGIE (MICST) (Applications des Technologies Robotiques aux Equipements Forestiers, \$300K), IRIS II Networks of Excellence (Partial Autonomy in Mobile Machines, \$120K), HydroQuebec (Telerobotics in Compliant Environments, \$13K), CAE Electronics (Flight Simulator Motion System Servocontroller Design, \$42K), McGill University (Kinematics and Dynamics of Manipulators on Compliant Bases, \$8K). ΕΜΠ: IRIS III Networks of Excellence (<i>Computer-Assisted Machine Operation</i> , \$108K), PAVE 99 (<i>Design of a Small Washing Machine for Rinsing</i> , 4,5 MGRD), PENED 99 (<i>Design of an Endoscopic Operation Simulator</i> , 12 MGRD), ARCHEMEDES 00 (<i>Design of an Active Control System for the Antiseismic Protection of Buildings</i> , 4 MGRD). Greece-Poland, (<i>Advanced Research and Training in Model-Based Control of Complex Multibody Systems</i> , 4 MGRD), PRAXE (<i>Development and Exploitation of a Training Simulator for Urological Operations</i> , €44K), European Committee, Growth, (GRD1-2000-25150, <i>Autonomous Inspection of Subsea Telecommunication Cables, Power Cables and Pipelines</i> , €250K, '01-'03), ANEM (<i>Research and Development for a Mechatronics Center</i> , €22,5K), M. Santorineos (<i>Control of a Robotic Platform Cooperating with an Interactive Environment</i> , '03-'04, €5K), European Committee FET, (IST-2001-33567, " <i>MICRON: Miniature Co-operative Robots advancing towards the Nano-range</i> ", €250K, '02-'05), NTUA-MIT Cooperation (<i>Planning and Control of On-orbit Servicing Space Robots</i> , €60K, '03-'05), PROTAGORAS 04 (<i>Nonlinear Model-Based Control of Unconventional Robotic Systems</i> , €10K, '04-'06), NTUA-WIT Cooperation (<i>Model-based Control for High-performance Multibody Closed-chain Mechanisms</i> , €12K, '04-'06), IRAKLITOS 03 (<i>Modeling and Control of Microrobotic Systems</i> , €34K, '03-'06), PYTHAGORAS 04, (<i>Advanced Research in Haptic and Simulation Technologies for Medical Surgery Environments</i> , €91K, '04-'07). ARCHEMEDES II, (<i>Development of a Flexible and Reliable Automated Warehouse System</i> , €50K, '05-'07). Greece-Poland, (<i>Model-based Control of High-Performance Mutibody Closed-chain Mechanisms</i> , 4 MGRD), PENED 03, (<i>Dynamics, Advanced Control and Implementation of an Autonomous Legged Robotic System</i> , €120K, '05-'08), PEVE 07, (<i>Analysis and Control of Underwater Vehicles Propelled by an Oscillating Foil</i> , €15K, '07-'09), Vereniki, (<i>Design and development of a dynamic positioning system for the platform "Delta-Vereniki"</i> , €14K, 2008), Polydiadrasa (<i>Design and development of a sensor-based, differential drive mini robot</i> , €12K, 2008). Touris SA, €8.000, (<i>Design of a mechatronic controlled mechanism</i>), '08-'09, European Space Agency, (<i>Identification and Assessment of Existing Terrestrial Micro-systems and Micro-technologies for Space Robotics</i>), €65.000, '08-'09), NTUA, PEVE 09, €15.000, <i>Study of the propulsion and control for small robotic fish</i> , '09-'11. IRAKLITOS II 2010 (<i>Autonomous Servicing of On-Orbit Space Systems from Robotic Systems</i> , €45K, '10-'13), European Commission-REA, Marie Curie Action, (<i>Active Control of Impact Response of Smart Sandwich Structures (Impact Sandwich)</i> , €167.847,6, 12/16-15/06, Thales 11, (<i>Biomimetic Legged Robots Operating in Rough Environments</i> , €600.000, 01/12-12/16), Aristia 11, (<i>Dynamics, Control and Design of Multi-joint, Variable Compliance, Quadruped Robots (Laelaps)</i> , €426.000, 01/12-12/15), PEVE 11, <i>Analysis, Design, and Control of an Autonomous Robotic Fish</i> , €18.000), European Space Agency, (<i>Space Gaits</i> , €25.000, 06/12-12/12).

Διδασκαλία

MIT: Control Systems Principles.

McGill: Mechanics of Robotic Systems I, Dynamics of Systems, Dynamics of Mechanisms.

ΕΜΠ (προπτυχιακά): Ηλεκτρικά Κυκλώματα και Συστήματα, Ηλεκτρομηχανικά Συστήματα Μετατροπής Ενέργειας, Εισαγωγή στη Θεωρία και Τεχνολογία του Αυτομάτου Ελέγχου, Ευφυή Συστήματα Ελέγχου και Ρομποτική (συνδιδασκαλία). (μεταπτυχιακά): Μηχανοτρονικά Συστήματα. (10 ώρες διδασκαλίας/ εξάμηνο)
<http://nereus.mech.ntua.gr/Teaching.html>

Διοικητικές Θέσεις

Σήμερα: ΔΠΜΣ Συστήματα Αυτοματισμού, Διευθυντής Σπουδών, 11/08 – σήμερα. Συγκλητική Επιτροπή Προπτυχιακών Σπουδών, Εκπρόσωπος ΣΜΜ, 09/10 - σήμερα, Επιτροπή Δεοντολογίας WWW ΣΜΜ, Επισπεύδων, 99 - σήμερα, Επιτροπή Προγράμματος Σπουδών ΣΜΜ, Επισπεύδων, 09/10 – σήμερα.

Στο παρελθόν: Τομέας ΜΚ&ΑΕ, Διευθυντής, 09/08 – 08/10, Επιτροπή Μετεγγραφών ΣΜΜ 99 - 10, ΔΠΜΣ Μικροσυστήματα και Νανοδιατάξεις, Εκπρόσωπος της ΣΜΜ στην ΕΔΕ, 05/03 – 08/11, Εκπρόσωπος ΣΜΜ, Συγκλητική Επιτροπή Βιβλιοθήκης ΕΜΠ, Εκπρόσωπος ΣΜΜ, 05-10. Συγκλητική Επιτροπή Προπτυχιακών Σπουδών, Επιτροπή Έκδοσης Αγγλικού Οδηγού Σπουδών, (05-09).

Δημοσιεύσεις

Μονογραφίες (3), Βιβλία (3), Κεφάλαια Βιβλίων (7), Επιστημονικές Εργασίες σε Διεθνή Περιοδικά με Κρίση (43), Επιστημονικές Εργασίες σε Διεθνή Συνέδρια με Κρίση (109), Επιστημονικές Εργασίες σε Διεθνή Συνέδρια με Κρίση Περίληψης (29), Επιστημονικές Εργασίες σε Εθνικά Συνέδρια με Κρίση (14), Τεχνικές Εκθέσεις (11), Ευρεσιτεχνίες (1). Editorials (1), Άρθρα & Παρουσιάσεις σε Ημερήσιο & Τεχνικό Τύπο (13), Παρουσιάσεις & Συνεντεύξεις (15). <http://nereus.mech.ntua.gr/Publications.html>

Google Scholar: αναφορές: 2518, h-index: 27, [Google Scholar](https://scholar.google.com/citations?user=...), Scopus: αναφορές: 1363, h-index: 18, ετεροαναφορές: 1154, h-index: 16, [Scopus \(Papadopoulos Evangelos\)](https://scopus.com/authors/details/...).

Τεχνικός Σύμβουλος

FERIC, AQUAVISION, CAE Electronics, HydroQuebec, Vapor Canada, Med-Eng Systems, Inc., Carad SA, ΔΕΗ.

Σύνταξη Περιοδικών

ASME Journal of Dynamic Systems, Measurement and Control, *Associate Editor*, 2011- σήμερα. Mechanism and Machine Theory, Elsevier Publishers, *Associate Editor for Control and Robotics*, 2005 - σήμερα, IEEE Transactions on Robotics, IEEE, *Associate Editor*, 2004 – 2009, IEEE/ASME Transactions on Mechatronics, *Guest Editor*, Advances in Robot Dynamics and Control, 2003, IEEE Robotics and Automation Society Conference Editorial Board (RAS-CEB), *Associate Editor (Mechanics, Design and Control)*, 2006 – σήμερα.

Κριτής

Περιοδικά: ASME Journal of Dynamic Systems, Measurement, and Control, ASME Journal of Mechanical Design, ASME/IEEE Transaction on Mechatronics, AIAA J. of Guidance, Control and Dynamics, AIAA J. of Spacecraft and Rockets, Dynamics and Control, IEEE Transactions on Man, Systems and Cybernetics, IEEE Transactions on Robotics, Int. Journal of Robotics Research, Journal of Robotic Systems, Mechatronics, Presence, Robotics and Autonomous Systems. Mechanism and Machine Theory, Robotica, Automatica.

Διεθνή Συνέδρια: American Control Conf., ASME Mechanisms and Robotics Conf., ASME Mechanisms Conf., ASME Winter Annual Meetings Conf. & Int. Mechanical Engineering Congress and Exposition (IMECE), Conf. on Decision and Control (CDC), IEEE Int. Conf. on Robot. & Autom. (ICRA), IEEE Mediterranean Conf. On Control & Automation, IFAC Symposium on Robot Control, Int. Conf. on Intelligent Robots and Systems (IROS), Int. Conf. on Systems, Man, and Cybernetics, Int. Conf. on Robotics and

Applications, IEEE Mediterranean Conf. on Control and Automation, Int. Conf. on Telehealth. Κριτής ερευνητικών προτάσεων από όλο τον κόσμο.

Σεμινάρια, Ομιλίες

School for Advanced Studies in Industrial and Applied Mathematics, (SASIAM), Bari, Italy, The Dynamics, Control and Planning of Robotic Manipulators in Space, Canadian Institute for Advanced Research, (CIAR), Annual Retreat, Mobile Robotic Systems: Dynamics, Planning and Control, 6/94, CAE Electronics, Montreal, Que., Research Highlights, École Polytechnique, Groupe de Recherche en Perception et Robotique, Montreal, Que., On Modeling and Control for Next Generation Articulated Forestry Machines, Brazilian Symposium on Timber Harvesting and Forest Transportation, Vitoria, ES, Brazil, On the Modeling and Control for Next Generation Articulated Forestry Machines, Ziridis School, Extreme Robotics. Department of Mechanical Engineering, University of Thessaly, Mechatronics: Present Situation and Future Trends. Warsaw University of Technology, Warsaw, Poland, Model-based Control of Complex Mechanical Systems. TEI of Athens, Electronics Department, Advanced Robotics for Unconventional Environments, McGill University, Department of Mechanical Engineering, Montreal, Que., Canada. Distinguished Lectures, Planning and Control of Mechanical Systems Exhibiting Nonholonomic Behaviour. MIT, Department of Mechanical Engineering, Cambridge, Planning and Control of Underactuated & Nonholonomic Mechanical Systems. Growing by Sharing, Greek-Italian Aeronautics Days, Aerospace-related Research at CSL. FETEC Exhibition: Actuator and Control Technologies in Mechatronics, Athens College: The Mechanical Engineer Today, Eugenides Foundation, The Blossoming of Robotics.

Διοργάνωση Συνεδρίων

IEEE Int. Conf. on Robot. & Autom. 2011 (ICRA '12), *Int. Program Committee (IPC) member*, 08/11-04/12, IEEE Int. Conf. on Intelligent Robots and Systems (IROS '11), *Int. Program Committee (IPC) member*, IEEE Int. Conf. on Robot. & Autom. 2011 (ICRA '11), *Int. Program Committee (IPC) member*, 08/10-04/11, IEEE Int. Conf. on Intelligent Robots and Systems (IROS '10), *Int. Program Committee (IPC) member*, IEEE Int. Conf. on Robot. & Autom. 2010 (ICRA '10), *Int. Program Committee (IPC) member*, 06/09-04/10, IEEE Int. Conf. on Robot. & Autom. 2008 (ICRA '08), *Int. Program Committee (IPC) member*, 06/07-04/08, 16th IEEE Mediterranean Conf. on Control and Automation (MED '08), *Int. Program Committee (IPC) member*, 05/07 – 06/08, Conf. on Advances in Computer-Human Interactions, (ACHI '08), 06/07-02/08, Joint Conf. on Biomedical Engineering Systems and Technologies (BIOSTEC-'08), 06/07-01/08, Int. Conf. on Informatics in Control, Automation and Robotics, (ICINCO '07), *Int. Program Committee (IPC) member*, 11/06 - 05/07, Int. Conf. on Informatics in Control, Automation and Robotics, (ICINCO '08), *Int. Program Committee (IPC) member*, 09/07 - 05/08, Int. Conf. on Robotics and Applications 2007 (RA '07), *Int. Program Committee (IPC) member*, 07/06 - 08/07, Int. Conf. on Telehealth 2007 (Telehealth '07), *Int. Program Committee (IPC) member*, 08/06-07/07, IEEE Int. Conf. on Robot. & Autom. 2007 (ICRA '07), Robot. & Autom. Society (RAS) Conf. Editorial Board, Associate Editor (Mechanics, Design and Control), 08/06-04/07, First Int. Conf. on Networked Robots (ROBOCOMM 2007), Organizing Committee, Local Chair, 10/06 – 10/07, Int. Conf. on Telehealth 2008 (Telehealth '08), *Int. Program Committee (IPC) member*, 08/07-07/08, Int. Conf. on Informatics in Control, Automation and Robotics, (ICINCO '07), *Int. Program Committee (IPC) member*, 11/06 - 05/07, IEEE Int. Conf. on Intelligent Robots and Systems 2007 (IROS '07), Associate Editor (Mechanics, Design and Control), 11/06 – 11/07, 6th CISM-IFToMM Symposium on Robot Design, Dynamics, and Control, (ROMANSY '06), Session III, *Session Chair*, Motion Planning and Synthesis. 15th IEEE Mediterranean Conf. on Control and Automation (MED '07), *Int. Program Committee (IPC)*, *IPC member*, Int. Symposium on Robot. & Autom. (ISRA '06), *Int. Program Committee (IPC)*, *IPC member*, IEEE Conf. on Control Applications (CCA '06), Human-Centered Applications I, *Session Chair*, IEEE Conf. on Control Applications (CCA '06), Robotics, *Session Chair*, IEEE Conf. on Control Applications (CCA '06), Robot Control, *Session Chair*, IEEE Int. Conf. on Robot. & Autom. (ICRA '06), Session AM2 MicroRobotics II, *Session Chair*, Int. Conf. on Robotics and Applications (RA '06), *Int. Program Committee (IPC)*, *IPC member*, Canadian Conf. on Computer and

Robot Vision (CRV '06), Int. Program Committee (IPC), *IPC member*, Int. Conf. on Robotics and Applications (RA '05), Session 2, Space Robotics, *Session Chair*, Int. Conf. on Telehealth (Telehealth '06), Int. Program Committee (IPC), *IPC member*, IEEE Conf. on Control Applications (CCA '06), Int. Program Committee (IPC), *IPC member*, IEEE Int. Conf. on Robot. & Autom. (ICRA '06), Int. Program Committee (IPC), *IPC member*, Int. IFAC Symposium on Robot Control (SYROCO '06), Int. Program Committee (IPC), *IPC member*, IEEE Int. Conf. on Robot. & Autom. (ICRA '05), ThP2-08, *Session Chair*, IEEE Int. Conf. on Robot. & Autom. (ICRA '05), ThP1-08, *Session Chair*, Int. Conf. on Robot. & Autom., (ICRA05), *Program Committee Member*, Multibody Dynamics 05, *Session Organizer*, Int. Conf. on Robot. & Autom., (ICRA04), *Program Committee Member*, Int. Symposium on Robot. & Autom. (ISRA'04) *Program Committee Member*, Int. Conf. on Robotics and Applications (RA '04), *Program Committee Member*, Int. Conf. on Robot. & Autom., (ICRA04), *Session Chair* ThP-13, WA-10, Int. Conf. on Robot. & Autom., (ICRA03), *Session Chair* TUA2 & TUM2, Int. Conf. on Robot. & Autom., (ICRA03), *Program Committee Member*, Int. Conf. on Intelligent Robots and Systems (IROS '02), Control-4, *Session Chair*, Int. Conf. on Advanced Intelligent Mechatronics (AIM 01), W4A, *Session Chair*, 07/01, ASME Robotics Technical Panel Member, Int. Federation for the Theory of Machines and Mechanisms, IFToMM History Committee, *Member-Greek Representative*, 04/01-today, Int. Conf. on Intelligent Robots and Systems (IROS '00), W-AI-6, *Session Chair*, 11/00, 8th IEEE Mediterranean Conf. on Control and Automation 2000, WB-1, *Session Chair*, 07/00, Int. Symposium on Robot. & Autom. (ISRA '00), *Program Committee Member*, 02/00 - 11/00, Int. Conf. on Robot. & Autom. (ICRA '98), MAI-5, *Session Chair*, 5/98, Int. Symposium on Robot. & Autom. (ISRA'98), *Program Committee Member*, 3/98-12/98, Int. Conf. on Intelligent Robots and Systems (IROS '98), Tutorials and Workshops Committee, *Member*, 12/97-10/98, Int. Conf. on Intelligent Robots and Systems (IROS '98), *Program Committee Member*, 12/97-10/98, Int. Conf. on Intelligent Robots and Systems (IROS '97), Mpml-6, *Session Chair*, 9/97, Int. Conf. on Robot. & Autom. (ICRA '97), ThPI-10, *Session Chair*, 4/97, Int. Conf. on Robot. & Autom. (ICRA '97), TUI-10, *Session Chair*, 4/97, Int. Conf. on Intelligent Robots and Systems (IROS '97), *Program Committee Member*, 09/95 - 09/97, American Institute of Aeronautics and Astronautics (AIAA), AIAA Technical Committee on Space Automation and Robotics (SARTC), *Int. Member* (elected), 4/95 - present, Int. Conf. on Intelligent Robots and Systems (IROS '95), *Program Committee Member*, 10/94 - 8/95, Int. Conf. on Intelligent Robots and Systems (IROS '95), TA2-2, *Session Chair*, 8/95, Symposium on TMM 96 (CSME Forum 1996), *Program Committee Member*, 1995, Canadian Society for Mechanical Engineering (CSME) Forum, Local Organizing Committee, *Vice Chairman*, 9/93 - 5/94.

Συνεχιζόμενη Εκπαίδευση

Centre for University Teaching and Learning, McGill University, Montreal, Que., Teaching Large Classes Workshop, 03/96, 03/95, Advisory Group for Aerospace Research and Development (AGARD) - NATO, Ottawa, Ont., Advanced Guidance and Control Aspects in Robotics, L. S. No. 193, 06/94, Institute for Fluid Power Education, Centre pour la Recherche Informatique du Quebec, (CRIQ), Montreal, Que., Applied Electrohydraulic Servo Systems, Russ Henke, 05/94, Centre for University Teaching and Learning, McGill University, Montreal, Que., New Staff Orientation - Teaching Methods Seminar, McGill Staff, 09/92.