Konstantinos (Kostas) J. Kyriakopoulos, Ph.D. - IEEE Fellow
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RESEARCH INTERESTS

- Real Time Embedded Control Systems & Robotics
  - Autonomous Systems (ground, underwater, aerial)
  - Multi-Agents Systems (including Air Traffic Management)
- Neuro-Robotics: robotic control based on peripheral and central nervous system interfaces

RESEARCH ACTIVITY QUANTIFICATION

- **Google Scholar** (h:40, Citations: 6592, i10:147)
  - **Last 5-years** (h:26, Citations:3547, i10:92)
- **SCOPUS** (h:27, Citations: 3083 / h:25, Citations: 2566, excl. self-cit. of all authors)

EDUCATION

Rensselaer Polytechnic Institute Troy, NY, USA
Ph.D., Computer and Systems Engineering, March 1991.
Dissertation Title: *A Supervisory Control Strategy for Real-Time Navigation of Mobile Robots in Dynamic Environments.*
GPA : 4.0/4.0.

Rensselaer Polytechnic Institute Troy, NY, USA
MS., Computer and Systems Engineering, September 1987.
Master's Thesis Title: *Minimum Jerk Path Generation.*
GPA : 4.0/4.0

National Technical University of Athens Athens, Greece
Diploma in Mechanical Engineering, June 1985.
Dipl. Thesis Title: *Quantization Error Analysis of Digital Implementations of the Kalman Filter.*
Graduated 1st out of a class of 180 students.
GPA : 8.75/10.0

TEACHING - RESEARCH & DEVELOPMENT EXPERIENCE

4/07 – present : *Professor* (1/01 – 4/07 : *Assoc. Professor* , 1/95 – 12/00 : *Ass. Professor*)
Control Sys. Lab., Mech. Eng. Dept., National Tech. Univ. of Athens
Athens, Greece

11/93 - 6/94 : *Research & Software Engineer*
PAN DRIVE S.A. Athens, Greece

4/93- 3/94 : *Software Engineer*
Center of Electronic Data Processing
Hellenic Navy (compulsory military service) Athens, Greece

6/91-3/93 : *Assistant Professor*
New York State Center for Advanced Technology in Automation and Robotics
Rensselaer Polytechnic Institute Troy, NY, USA

4/91 - 6/91 : *Visiting Research Associate*
NASA Center for Intelligent Robotic Systems for Space Exploration
Rensselaer Polytechnic Institute Troy, NY, USA

7/88 - 4/91 : *Graduate Research Assistant*
NASA Center for Intelligent Robotic Systems for Space Exploration
Rensselaer Polytechnic Institute Troy, NY, USA

1/86 -7/88 : *Graduate Research Assistant and Mech. Hardware Manager*
Robotics and Automation Labs
Rensselaer Polytechnic Institute Troy, NY, USA

2/84 - 6/85 : *Undergraduate Research Assistant*
Control Systems Laboratory - Mech. Eng. Dept.
National Tech. Univ. of Athens Athens, Greece

FUNDED R & D PROJECTS

In the following list, where quite a few projects involve a lot of partners, the indicated level of funding concerns the NTUA team. In all projects he served as Principal Investigator (PI) for NTUA except projects #32, #33 where he served as Co-PI.

Current

[1] "Co4Robots - Achieving Complex Collaborative Missions via Decentralized Control and Coordination of Interacting Robots", FP7-25-ICT-2016-2017-RIA, 600.000€, 2017-20

[2] "ROBOCADEMY - European Academy for Marine and Underwater Robotics", FP7-PEOPLE-2013-ITN, 110.000 €, 2014-17

[3] "RECONFIG - Cognitive, Decentralized Coordination of Heterogeneous Multi-Robot Systems via **RECONFIG**urable Task Planning", EU, FP7 Cognitive Systems and Robotics (STREP), 508.800 €, 2013-16

Completed

[4] "An Autonomous Underwater Robotic Visual Inspection System for Cyprus' Offshore Aquaculture Industry", Cyprus Research Promotion Foundation, 2013-15, 10.000 € (consultation fee).

[5] "Mobile Robot Fault Diagnosis & Tolerance", ARCHIMEDES (GSRT), 2013-15, 20.000 € (consultation fee).

[6] "PANDORA - **P**ersistent **A**utonomy through lear**N**ing, a**D**aptation, **O**bservation and **R**epl**A**nning", EU, FP7 Cognitive Systems and Robotics (STREP), 420.000 €, 2011-15

[7] "HCUAV – **H**ellenic **C**ivil **U**nmanned **A**ir **V**ehicle", Security – SYNERGASIA (GSRT), 2 M€ (NTUA: 230.000 €), 2013-15

[8] "R3-COP: Robust & Safe Mobile Co-operative Autonomous Systems", ARTEMIS Joint Technological Initiative, 297.500 €, 2010-13.

[9] "THE: The Hand Embodied", EU, FP7- 248587-2010- Cognitive Systems and Robotics (IP), 560.000 €, 2010-14

[10] "CESAR: Cost-efficient methods and processes for safety relevant embedded systems – SubProgram 6: Aerospace", ARTEMIS Joint Technological Initiative, 172000€, 2009-2012

[11] **"***Safety, Complexity and Responsibility based design and validation of highly automated Air Traffic Management – iFLY***"**, EU, FP6-2005-TREN 4, 2006-2009, 242.500€

[12] "*Development of an Advanced Robotic Systems for Upper-Limb Substitution using Electro-Myo-Graphic Signals*", PENED (GSRT), 2006-2009, 93.000€. Cooperation with Zenon S.A.

[13] ***'Ship Hull Inspection using Remotely Operated Vehicles",*** EUREKA (GSRT), 2006-2008, 64.000€. Cooperation with Marac S.A.

[14] **"***Underwater telecommunication - Automatic navigation and Acoustic visualization technologies for Undersea Vehicle Systems (AUVs - ROVs)***",** International Cooperation (GSRT: 05NON-EU-546), 2006-2008, 6.000€. Cooperation with Hellenic Center of Marine Science, MIT (USA), Marac S.A.

[15] FP6-2002-IST-001917 "***NEUROBOTICS**: The Fusion of **NEURO**science and ro**BOTICS** for Augmenting Human Capabilities*", 2004 - 7, 420.000€ (IP)

[16] FP6-2002-IST-1 "***I-SWARM** : Intelligent Small World Autonomous Robots for Micro-Manipulation*", 2004 - 7, 410.000€ (IP)

[17] "***EURON** II : European Robotics Research Network II",* IST-2002-507728 (IST Future and Emerging Technologies), Greek National Representative, 2004-2008*,* 50.000€

[18] *"Principles of Using the Navigation Functions Methodology for the Label Anti-Overlapping Problem"*, C20047E/BM/05 Eurocontrol "*Gre a Gre*" contract, 2005*,* 25.000€

[19] "*Modeling & Hybrid Control of Robotic Multi-arm Locomotion Systems with Holonomic & Nonholonomic Constraints*" 2003-2006 (National, NTUA), 15.000€.

[20] *"Robust Schemes for Coordination & Control over Heterogeneous Networks: Autonomous Guided Vehicle Fleet within a Corporate INTRANET"*, Greek – Italian Cooperation (with University of Parma), 2003-2005, (National, GSRT), 20.000€

[21] "***MICRON**: MIniature Co-operative RObots advancing towards the Nano-range*", IST-2001-33567 (Future and Emerging Technologies), 2002-2005, 250.000€

[22] "***HYBRIDGE**: Distributed Control and Stochastic Analysis of Hybrid Systems Supporting Safety Critical Real-Time Systems Design*", IST-2001-32460, 2002-2005**,** 280.000€

[23] "***EURON** : European Robotics Research Network",* IST-2000-26048 (IST Future and Emerging Technologies), Greek Representative, 2000-2003, 10.000€

[24] "***AUTOTRACKER:** Autonomous Inspection of Subsea Telecommunication Cables, Power Cables and Pipelines with Underwater Robotic Vehicles*", GROWTH G3RD-CT-2000-00265, 2000-2003+2004, 250.000 + 15.000 €

[25] "*Coordination of a Pair of Mobile Robots during Indoors Tasks*", Greek - Polish Cooperation (with Poznań University of Technology), 2000-2002, (National, GSRT), 12.000€

[26] "*A Hybrid Systems Approach for Power Systems Analysis*", 2000-2002 (National, ICCS-NTUA), 15.000€

[27] "*Robust Integration Methodologies for a Team of Commercially Available Indoors Mobile Robots: Application to Office Patrolling"*, PENED-1999-EÄ4 (cooperation with Univ. of Patras and Technical University of Crete), Greek Secretariat for Research and Technology, 2000-2001 (National), 50.000€

[28] "*Development of Robotic Packaging System for Plastic Bowls*", PABE-1999 (cooperation with PALAS S.A.), 2000-2001 (National, GSRT), 30.000€

[29] *"Sensor - Actuator Identification for Real-Time Control of a Time-Delayed Hydro-pneumatic ink injection System",* Greek - British Cooperation (with Strathclyde University and MORNOS S.A.), 1999-2001, (National, GSRT), 10.000€

[30] *"Semiautomatic Control of Underwater Vehicles via Teleoperation",* Greek - French Cooperation (with CNRS-Grenoble), 1998-2000, (National, GSRT), 12.000€

[31] "***NSCN:** Breakthrough in Nonlinear Control Systems*", EC-Training & Mobility for Researchers, 1997-2000, 50.000€

[32] "***SESDIP**: Structural Evaluation & Synthesis of Distributed Industrial Processes",* ESPRIT III – 8924, 1994-1996 (as member of the U.Patras team), 180.000€

HONORS and ACTIVITIES

Conference Activities

- Member of the International Program Committee for the "*25th Mediterranean Conference on Control and Automation (MED'17)*", Valletta, Malta on July 3-6, 2017.
- Member of the International Program Committee for the "*13th International Symposium on Distributed Autonomous Robotic Systems 2016* (*DARS 2016*)" November 7-9, 2016; Natural History Museum, London, UK
- Member of the International Program Committee for the "*2016 IEEE International Conference on Mechatronics and Automation* (*IEEE ICMA 2016*)" Harbin, China, August 7-10, 2016
- Member of the International Program Committee for the "*2016 IEEE/RSJ International Conference on Intelligent Robots and Systems*", Oct 09 - 14, 2016, Deajon, Korea
- Member of the International Program Committee for the "*24th Mediterranean Conference on Control and Automation (MED'16)*", Athens, Greece, June 21-24, 2016
- Member of the Evaluation Committee for the 2016 Georges Giralt PhD Award in Robotics, Topic Group on Education and Training (TGET), euRobotics aisbl
- Member of the International Program Committee for the "*2015 IEEE/RSJ International Conference on Intelligent Robots and Systems*", Sept 28 - Oct 03, 2015 in Congress Center Hamburg, Hamburg, Germany
- Member of the International Program Committee for the "*2015 IEEE Conference on Control Applications (CCA) - IEEE Multi-Conference on Systems and Control*", Sep. 21-23, 2015, Sydney, Australia
- Member of the Workshops Program Committee "*Robotics: Science and Systems Conference (RSS 2014)"*, Sapienza University of Rome, July 13-17, 2015
- Member of the International Program Committee for the "*23rd Mediterranean Conference on Control and Automation (MED'15)*", Torremolinos (Malaga), Spain, on June 16-19, 2015
- Member of the Best Medical Paper Award Committee for the "*IEEE Robotics and Automation Society for ICRA 2015*", Seattle, Washington, May 26-30, 2015
- Associate Editor (AE) for the Conference Editorial Board (CEB) of the "*IEEE Robotics and Automation Society for ICRA 2015*", Seattle, Washington, May 26-30, 2015
- Member of the International Program Committee for the "*2014 IEEE Conference on Control Applications (CCA) - IEEE Multi-Conference on Systems and Control*", Oct. 8-10, 2014, Antibes/Nice, France
- Member of the Workshops Program Committee "*Robotics: Science and Systems Conference (RSS 2014)"*, University of California, Berkeley, July 12-16, 2014
- Member of the International Program Committee for the "*22nd Mediterranean Conference on Control and Automation (MED'14)*", Palermo, Italy, June 25-27, 2014
- Associate Editor (AE) for the Conference Editorial Board (CEB) of the "*IEEE Robotics and Automation Society for ICRA 2014*", Hong Kong, China, May 31-June 5 2014
- Co-Organizer of the ICRA 2014 Workshop on "*Persistent Autonomy for Marine Robotics*".
- Associate Editor (AE) for the Conference Editorial Board (CEB) of the "*IEEE Robotics and Automation Society for ICRA 2013*", Karlsruhe, Germany, May 6-10, 2013
- Member of the International Program Committee for the "*21st Mediterranean Conference on Control and Automation (MED'13)*", Chania, Crete, Greece, June 25-28, 2013
- Co-organizer of the invited session "Bio-inspired design and control of robot hands" in the "*4th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob 2012)*" June 24-28, 2012, Roma, Italy.
- Member of the International Program Committee for the "*10th International IFAC Symposium on Robot Control (SYROCO'12)*", September 5-9, 2012, Dubrovnik, Croatia.
- Member of CEB and Area Editor for the "*2012 IEEE Conference on Automation Science and Engineering,* August 20-24, Seoul, Korea, 2012

- Member of the International Program Committee for the "*20th Mediterranean Conference on Control and Automation (MED'12)*", Barcelona, Spain, July 3-6, 2012
- Member of the Executive Program Committee of the "*4th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob 2012)*" June 24-28, 2012, Roma, Italy.
- Member of the International Program Committee for the "*20th Mediterranean Conference on Control and Automation (MED'12)*", July 3-6, 2012, Barcelona, Spain
- Program Co-Chairman (Europe) for the *"2012 IEEE International Conference on Robotics and Automation (ICRA2012)"*, St. Paul, Minneapolis, May, 2012
- Program Co-Chairman (Europe) for the "*2012 IEEE Conference on Automation Science and Engineering,* Seoul, Korea, 2012
- Member of the International Program Committee for the "*2011 IEEE/RSJ International Conference on Intelligent Robots and Systems*", S. Francisco, CA, October, 2011
- EU/USA Liaison Chair for the "*2011 IEEE CSS Multi Conference on systems and Control*", Denver, Co, September 28-30, 2011
- Associate Editor (AE) for the Conference Editorial Board (CEB) of the "*IEEE Robotics and Automation Society for ICRA 2011*", Shanghai, China, May 9-13, 2011
- Member of the International Program Committee for the "*IEEE ROBIO 2010 - International Conference on Robotics and Biomimetics*", Tianjin, China, December 14-18, 2010
- Member of the International Program Committee for the "10th International Symposium on Distributed Autonomous Robotic Systems - DARS 2010", November 1-3, Lausanne, Switzerland
- Member of the International Program Committee for the "*2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*", Taipei, Taiwan, October 18-22, 2010
- Associate Editor (AE) for the Conference Editorial Board (CEB) of the "*IEEE Robotics and Automation Society for ICRA 2010*", Anchorage, Alaska, May 3-8, 2010
- Member of the International Program Committee for "*7th IFAC 7th Symposium on Intelligent Autonomous Vehicles (IAV 2010)*" Lecce, Italy, September 6 - 8, 2010
- Member of the International Program Committee for "*2010 IEEE Conference on Automation Science and Engineering", (IEEE-CASE 2010*: http://case2010.org/), Toronto, Canada, August 21-24, 2010
- Member of the Program Committee of "*2009 IEEE International Symposium on Computational Intelligence in Robotics and Automation (CIRA2009)*", December 15-18, 2009, Daejeon, Korea.
- Member of the Program Committee of "*Safety, Security, and Rescue Robotics Workshop (SSRR 2009)*", Denver, November 3-6, 2009
- Member of the Program Committee of "*Robotics: Science and Systems 2009 (RSS-2009)",* Seattle, June 28 - July 1, 2009
- Member of the International Program Committee for the "*17th Mediterranean Conference on Control and Automation (MED'09)*", Thessaloniki, Greece, June 26-26, 2009
- Member of the International Program Committee for the "*2009 IEEE/RSJ International Conference on Intelligent Robots and Systems*", Hyatt Regency St. Louis, Riverfront, St. Louis, USA, on October 11-15, 2009
- Associate Editor (AE) for the Conference Editorial Board (CEB) of the "*IEEE Robotics and Automation Society for ICRA 2009*", Kobe, Japan, May 12-17 2009.
- Member of the International Program Committee for "*2009 IEEE Conference on Automation Science and Engineering", (IEEE-CASE 2098*: www.ieee-case.org), Bangalore, India, August 22-25
- Member of the International Program and Local Arrangements Committees for the "*International Symposium on Experimental Robotics (ISER) 2008*", Athens, July 2008
- Member of the International Program Committee for the "*SSRR (Internal Workshop on Safety, Security, and Rescue Robotics) 2008*", Sendai, Japan on October 21-24 2008

- Member of the International Program Committee for the "*2008 IEEE/RSJ International Conference on Intelligent Robots and Systems*", Niece, France, September 2008.
- Associate Editor (AE) for the Conference Editorial Board (CEB) of the "*IEEE Robotics and Automation Society for ICRA 2008*", Pasadena, California, May 2008
- Member of the International Program Committee for " *2008 IEEE Conference on Automation Science and Engineering (IEEE-CASE 2008*: www.ieee-case.org), Washington DC, August 23-26
- Member of the International Program Committee for "*The 2nd IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics – **BioRob 2008***", Scottsdale, Arizona, USA, October 19-22, 2008
- Member of the International Program Committee for "*ACHI 2008, The International Conference on Advances in Computer-Human Interactions*", .February 10-15, 2008 - St. Luce, Martinique
- Member of the International Program Committee for the "*2007 IEEE/RSJ International Conference on Intelligent Robots and Systems*", San Diego, California, October 29 to November 2, 2007
- Program Co-Chairman (Europe) for the " *1st European conference on Networked Robots – ROBOCOMM*", Athens, Greece, 2007
- Member of the Program Committee for the "*2007 IEEE/ASME International Conference on Advanced Intelligent Mechatronics IEEE/ASME AIM 2007*", ETH Zürich, Switzerland, September 4-7, 2007.
- Member of the International Program Committee for the "*6th IFAC Symposium on Intelligent Autonomous Vehicles (IAV2007)*", Toulouse (FRANCE), September 3-5 2007
- Member of the International Program Committee for the "*IASTED International Conference on Control and Applications (CA 2007)*", Montreal, Canada, May 30 - June 1, 2007
- Member of the International Program Committee for the "*6th Chapter Conference on Advances in Cybernetic Systems*" September 6-7, 2007**,** University College Dublin**,** Republic of Ireland
- Publications Chair of the "*2007 European Control Conference*", July 2007, Kos, Greece.
- Publications Chair of the "*15th Mediterranean Conference on Control & Automation*", June 2007, Athens, Greece.
- Member of the International Program Committee for the "*2006 IEEE/RSJ International Conference on Intelligent Robots and Systems*" Beijing, China, October 9-14, 2006.
- Member of the Program Committee of" *Robotics: Science and Systems 2006 (RSS-2006)"*
- Member of the International Program Committee for the *"2nd International Conference on Informatics in Control, Automation and Robotics"* (ICINCO 2005), September 14-17, Barcelona, Spain
- Member of the International Program Committee for the "*5th Chapter Conference on Advances in Cybernetic Systems*" September 7-8, 2006, Sheffield, United Kingdom
- Member of the International Program Committee (IPC) for the "*IASTED International Conference on Robotics and Applications (RA 2006)*", Honolulu, USA, August 14 - 16, 2006.
- Member of the International Program Committee for the "*14th Mediterranean Conference on Control Application MED06*", Ancona, Italy, June 28-30, 2006.
- Member of the International Program Committee for the "*IASTED International Conference on Control and Applications (CA 2006)*", Montreal, Canada May 24-26, 2006
- Program Co-Chairman (Europe) for the *"2006 IEEE International Conference on Robotics and Automation (ICRA2006)"*, Orlando, Florida, May, 2006
- Member of the International Program Committee for the *"IASTED International Conference on Robotics and Applications (RA 2005)"*, Cambridge, USA, October 31-November 2, 2005

- Member of the International Program Committee for the *"2005 American Control Conference"*, June 2005 Portland, Oregon.
- Member of the International Program Committee for the *"2005 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2005)"*, 24-28 July, 2005, Monterey, California, USA
- Member of the International Program Committee (IPC) of the *"RoboCup 2005 Conference the RoboCup Soccer & Rescue Competitions"*, Osaka, Japan, July 13 - 19 2005.
- Member of the International Program Committee for the "*13 th Mediterranean Conference on Control & Automation*", June 2005, Cyprus.
- Member of the International Program Committee for the *"2005 IEEE Symposium on Computational Intelligence in Robotics and Automation (CIRA 2005)"*, Helsinki, Finland June 27-30, 2005
- Member of the International Program Committee for the *"2005 IEEE International Conference on Robotics and Automation (ICRA2004)"*, Barcelona, Spain, April 18-22, 2005
- Member of the International Program Committee for the *"2004 IEEE Conference on Control Applications"*, Taipei, Taiwan, Sept. 1-4, 2004
- Member of the International Program Committee for the *"IASTED International Conference on Robotics and Applications (RA 2004)"*, Honolulu, Hawaii, USA, August 23-25, 2004
- Member of the International Program Committee (IPC) of the *"RoboCup 2004 Conference the RoboCup soccer & rescue competitions"*, Lisbon, Portugal, 27 June - 5 July 2004.
- Member of the International Program Committee for the *"5th IFAC Symposium on Intelligent Autonomous Vehicles (IAV 2004)"*, Lisbon, Portugal, 5-7 July 2004
- Member of the International Program Committee for the Workshop *"Intelligent Manipulation and Grasping"*, Genova, Italy, July 2004
- Member of the International Program Committee for the *"2004 IEEE International Conference on Robotics and Automation (ICRA2004)"*, New Orleans, Louisiana, May 2004
- Member of the International Program Committee for the *"2003 IEEE International Conference on Robotics and Automation (ICRA2003)"*, Taiwan, September 2003
- Member of the International Program Committee for the *"2003 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2003)"*, July 2003
- Publications Chair for the "*11th Mediterranean Conference on Control & Automation*", June 2003, Rhodes, Greece.
- Member of the International Program Committee for the "*10th Mediterranean Conference on Control & Automation*", June 2002, Lisbon, Portugal.
- Member of the International Program Committee (IPC) of the *"RoboCup 2002 Conference the RoboCup Ssoccer & Rescue Competitions"*, Fukuoka, Japan and Busan, South Korea, 19 - 25 June 2002
- Member of the International Program Committee for the *"2002 IEEE International Conference on Robotics and Automation (ICRA2002)"*, Washington, DC, May, 2002
- Program Co-Chairman of the "*9th Mediterranean Conference on Control & Automation*", June 2001, Croatia.
- Member of the International Program Committee for the *"16th International Symposium on Robotics and Automation in Construction (ISARC'99)"*, Madrid, 1999
- Member of the International Program Committee for the *"1999 IEEE International Conference on Robotics & Automation"*.
- Member of the International Program Committee for the *"EURISCON'98 : 3 rd European Robotics, Intelligent Systems & Control Conference"*, Athens, Greece, June 22-25, 1998
- Treasurer of the *Control Chapter* of the *IEEE Greek Section* (June '97 -)
- Member of the International Program Committee for the *"1997 IEEE International Conference on Robotics & Automation"*.

- External advisor to the Robotics and Automation Laboratory of Porto University, Portugal, for the NATO program *"Science for Stability"*.
- Member of a three member faculty committee in charge of the affiliation of NTUA with the sister university, *University of Texas at Arlington*. (September 1996)
- Program Chairman of the "*4th Mediterranean Conference on Control & Automation*", Chania, June 1996, Greece.
- European liaison and member of the Program Committee of the *"1995 International Symposium on Intelligent Control",* Monterey, CA, USA
- Special & Tutorial Sessions Chairman of the "*2nd Mediterranean Conference on Control & Automation*", Chania, June 1994, Greece.

Editorial Activities

- Associate Editor, "*IEEE Robotics and Automation Letters*", (2015 -)
- Associate Editor, "*IEEE Transactions on Robotics*", (2010 - 2014)
- Associate Editor, "*IEEE Transactions on Automation Science & Engineering*", (2005 - 2008)
- Special Issue Editor for the *"IEEE - Robotics & Automation Magazine"*, of the special issue "Robotics and Automation in Europe: Projects funded by the European Commission" (2005).
- Associate editor & EURON Liaison of the *"IEEE-Robotics & Automation Magazine"*, official journal of the IEEE Robotics & Automation Society (2004 - 2009).
- Associate editor of the *"Robotics & Automation Magazine"*, official journal of the IEEE Robotics & Automation Society (1997 - 2000).
- Special Issue Editor for the *"IEEE - Robotics & Automation Magazine"*, of the special issue "Robotics and Automation in Europe: Projects funded by the European Commission" (1997).
- Associate editor of the *"International Journal of Intelligent Control & Systems"* (1995 - 1997).

Other Academic Honors & Activities

- Elevated to **IEEE Fellow**, effective 1 January 2017, with citation: "…*for contributions to robot motion planning and control of multi-robot systems*"
- OpenBionics initiative conceived and developed under my leadership is
  - the winner of the 2015 Robotdalen Innovation Award, and
  - the 2nd prize winner of the 2015 Hackaday.
- Member of the IFAC Technical Committee on Discrete Event & Hybrid Systems (DHS), 2008 –
- Member of the IFAC Technical Committee on Intelligent Autonomous Vehicles (IAV), 2006 – 8.
- Alexander Von Humboldt-Stiftung award to spend a year in the German Aerospace Agency-DLR (1992)
- Alexander Onasis Foundation Fellowship, 1989-90
- Bodosakis Foundation Fellowship, 1986-88
- G.Samaras award for outstanding academic achievement in the Mechanical Engineering Dept. of the National Technical University of Athens (1st out of 180), 1985
- Senior Member of Robotics, Control and Computer Societies of IEEE
- Full member of Technical Chamber of Greece.

NTUA Service

- 2015 - : Director of the Post-Graduate Program on "Robotics & Automation Systems"
- 2010 - 2015: Director of the Mechanical Design & Control Division of the Mechanical Engineering Dept. of the National Technical University of Athens

- 2001- 3:Associate Department Head of the Mechanical Engineering Department (in charge of financial administration, participation to NTUA senate, in charge of student affairs)
- 2001- 2015: Director of the Mechanical Engineering Computation Laboratory (100 high-end PC workstations used for education and research activities)
- 1997 - 8: Mechanical Engineering Faculty Representative to the NTUA senate.

INVITED VISITS - TALKS

- "*Persistent Autonomy of Underwater Vehicle-Manipulator Systems*", Texas A&M - Qatar, Qatar, April 10, 2016
- "*Persistent Autonomy of Underwater Vehicle-Manipulator Systems + A few more of our Robotic activities*", Foundation or Research & Technology Hellas (FORTH), Heraklion, Crete, December 11, 2015
- "*Autonomous Aerial and Underwater Vehicle-Manipulator Systems*", University of Nevada - Reno, September 22, 2015, Reno, NV
- External PhD Committee member ("Distributed Control and Communication for Nonlinearly Interconnected Systems"), Panayiotis Panagi, University of Cyprus, May 2015.
- "*Persistent Autonomy of Underwater Vehicle-Manipulator Systems*", Universita degli Studi di Napoli Federico II, April 22, 2015, Napoli, Italy
- "*Towards Integrated Arm-Hand Prosthetic Systems + A few more of our Robotic activities",* Delft University, March 23, 2015, Delft, Netherlands.
- "*Towards Persistent Autonomy of Underwater Robotic Vehicles + A few more of our Robotic activities*", Drexel University, September 22, 2014, Philadelphia, Pennsylvania, USA
- "*Overview of the CSL-NTUA Research*", Chalmers University of Technology, October 3, 2013, Sweden
- "*Overview of the CSL-NTUA Research*", Linkoping University, September 18, 2013, Sweden
- "*Control of Under-Actuated Underwater Vehicles: From Semi-Autonomous to Autonomous Operation*", Khalifa University of Science, Technology & Research (KUSTAR), May 29, 2012, Abu Dhabi
- "*Robotics a Post-Industrial Technology*", 4th Pan-Hellenic Congress of Electrical & Computer Engineering Students, November 19 -20, Patras, 2010
- Opponent, Tove Gustavi PhD Thesis ("*Control and Coordination of Mobile Multi-Agent Systems*"), Royal Institute of Technology (KTH), Stockholm, Sweden, September 2009.
- "*Neuro-Robotics in Future Surgery*", May 21-23, 2009, 9th Pan-Hellenic Congress of Laparo-endoscopic Surgery and International Symposium, Athens, Greece
- Visiting Lecturer: "*Robotic Control in Neurobotic Systems (week-long seminar)*", November 13-17, 2006, Scuola Superiore Santa Anna, Pisa, Italy
- "*Control theory in Neurobotics (linear vs non-linear control; handling delays; feedforward and feedback control)*" THE NEUROBOTICS SUMMER SCHOOL 2006, August 20-25, 2006, University of Umeå, Sweden
- "*Design & Control of Micro-Robotic Systems*", Mechanical Eng. Dept., Patras Univ., September 2006
- "*Application Paradigms of Multi-agent Robotic Systems*", Alenia Aeronautica – HAIR Corp., 2nd Workshop on Greek-Italian Aeronautics Days, Turin, October 25 - 27, 2006
- Visiting professor at the Computer Integrated Manufacturing Center and the Center for Advanced Computer Studies of the University of Southwestern Louisiana, Lafayette (Invited for August - September 1998)
- Visiting professor at the Robotics and Vision Laboratory of the Computer Science Department of the University of Minnesota, Minneapolis. (April-May 1996)
- "Quality Assurance & Inspection using X-ray Tomography" (a***) University of Minnesota*** (b) ***University of Southwestern Louisiana***, May 1996

- "Sensor Based Navigation and Motion Control of Autonomous Underwater Vehicles"- "Optical Inspection for Production Quality Assurance", November 1995, ***Universita di Parma,*** Italy
- Visiting Scientist at the Control Engineering Center of ***City University***, London, UK (February - March 1995)
- "Sensor Based Navigation and Motion Control of Nonholonomic Vehicles" - "Modeling and Force/Position Control of Anthrobot-2 Dexterous Hand", May 1994, ***National Technical University of Athens***, Greece
- "The research of the New York State Center for Advanced Technology in Automation and Robotics on Nonholonomic Systems and its applications on Intelligent Vehicle Control", November 1992, ***Drexel University***, Phila, PA, USA.
- "The research of the NASA Center of Intelligent Robotic Systems for Space Exploration on applications of Distributed Intelligence on Mobile Robotics", Summer 1991, (a) ***National Technical University of Athens***, (b) ***Technical University of Crete***, (c) ***University of Patras***, Greece
- "Collision Avoidance and Motion Coordination of Multiple Moving Mobile Robots", September 1990, ***IBM T.J.Watson Research Center***, York Town Heights, NY, USA

PATENTS

- TRD : The **T**win **R**otating **D**isks water based silicon wafer cleaner (pending)

PROFESSIONAL ACTIVITIES

Scientific Consulting

- **Greek National Research & Technology Council (**http://eset.certh.gr/**):** member of the Information Technologies Division, 2005 – 2009
- **Greek Secretariat for Science & Technology (**http://www.gsrt.gr/**)**
  - Member of proposal & projects evaluation panels, 2000 -
  - **EC-Information & Communication Technol. (**http://cordis.europa.eu/fp7/ict/**):** Member of the Greek Representation Team, 2005 - 2010
    - **Cognitive Systems & Robotics:** Greek Representative to the Mirror Group, 2006 - 2009
  - **ARTEMIS-Embedded Computing Systems Initiative (**https://www.artemis-ju.eu/): Greek Representative to the Governing Board, 2008 - 2011
- **European Commission:** Member of projects evaluation panels, 1999 –
- **Cyprus University of Technology, Mechanical Eng. Dept. (**http://www.cut.ac.cy/**):** member of advisory and electoral boards, 2008 -
- **University of Central Greece (**http://www.ucg.gr**):** member of the University Administrative Committee (Governing Board) 2009 – 2010
- **ECHORD – European Clearing House for Open Robotics Development (**http://www.echord.info**):** Reviewer, Rapporteur and Evaluation Panel Member, 2009 – 2011
- **EUROC – European Robotics Challenges (http://www.euroc-project.eu/):** Reviewer, Rapporteur and Evaluation Panel Member, 2015 -

Administration

- **CERECO S.A.-Ceramics & Refractories Technological Development Company (**http://www.cereco.gr/**):** Chairman of the Board of Directors, 2007 - 2011

Technical Consulting

- Member of technical consulting teams for several Greek organizations ("Thermal Buses S.A.", "Athens Urban Transport Organization", "Hellenic Civil Aviation Authority" and ministries ("Ministry of Interiors", "Ministry of Defense", "Ministry of Education", "Ministry of Development"): project include: automation of services & transportation, security, telematics, e-government, etc.

THESES

Personally Developed

- K.J.Kyriakopoulos "A Supervisory Control Strategy for Real-Time Navigation of Mobile Robots in Dynamic Environments", Ph.D. Thesis, March 1991, Rensselaer Polytechnic Institute, Troy, NY, USA.
- K.J.Kyriakopoulos "Minimum Jerk Path Generation", MS Thesis, September 1987, Rensselaer Polytechnic Institute, Troy, NY, USA.
- K.J.Kyriakopoulos "Quantization Error Analysis of Digital Implementations of Kalman Filter", Diploma Thesis, June 1985, National Technical University of Athens, Greece.

Graduate Student Advising

In terms of PhD advising, I have graduated the following students:

1. Panos Marantos, "Visual Servoing of Robotic Helicopter Performing Aggressive Maneuvers", November 2015, Startup Endeavor
2. Giannis Roussos, "Collision Avoidance Algorithms and Applications in Air Traffic Management" March 2015, Mechatronics consultant.
3. Minas Liarokapis, "Robotic Tele-operation Driven By Electro-Myo-Graphic Signals", June 2014 (now Post-Doc at Yale University)
4. Alina Eqtami, "Event-Based Model Predictive Control", August 2013 (now Post-Doc at Harvard University)
5. Mika Panagou, "Viability Control for Nonholonomic Systems: Application to the Compensation of Disturbances for Underwater Robotic Vehicles", March 2012 (now **Assistant Professor**, University of Michigan, Ann Arbor)
6. Nikos Tsokas, "Mobile Robot Cooperation for Dynamic environment Identification", February 2012 (now Stuff Member at Nokia - Siemens R & D Center)
7. George Karras, "Teleoperation of Underwater Robotic Vehicles Using Visual Servoing Techniques", December 2010 (now Stuff Member at Hellenic Aerospace Industries)
8. Panagiotis Artemiadis "Control Methodologies for Neuro-Robotic Systems", February 2009 (now **Assistant Professor** at Arizona State University)
9. Grigoris Lionis, "Modeling and Hybrid Control of a Swarm of Multiple Multilinked Micro Robots", July 2008, Technology Analyst
10. Xanthi Papageorgiou, "Motion Tasks for Neuro-Robotic Systems", June 2007 (now Instructor at Higher Technological Institute, Athens, Greece)
11. Dimos Dimarogonas "Development of Decentralized Hybrid Control Methodologies with Application to the Collision Detection & Resolution Problem", December 2006 (now **Associate Professor** at KTH-Royal Institute of Technology, Sweden)
12. Georgia Anoussaki "Simultaneous Localization and Map Building of Skid-steered Robots in Unstructured Outdoor Environments", February 2006 (now at the European Patent Office)
13. Savvas Loizou "Automated Planning of Motion Tasks for Teams of Multiple Micro-Robotic Systems", September 2005 (now **Assistant Professor** at Cyprus University of Technology, Cyprus)
14. George Fourlas "Faults Diagnosis for Hybrid Systems", June 2004 (now Assistant Professor at Higher Technological Institute, Lamia, Greece)
15. Herbert Tanner "Motion Planning and Control of Multiple Mobile Manipulators Handling Non-rigid Objects", June 2001 (now **Associate Professor** at University of Delaware, USA).

Currently, advising the following PhD students:

- Sahab Heshmati, "Visual Servoing Strategies for Underwater Vehicle based Inspection"
- George Zogopoulos, "Fault Diagnosis & Compensation in Fixed-Wing UAVs"

- Panagiotis Vlantis, “Mobile Manipulators Decentralized Cooperation via Lean Communication”

He has also supervised 8 Master’s and 80 Diploma Theses, while he is currently supervising 2 Master’s and 10 Diploma Theses.

ACCEPTED PUBLICATIONS

Journal Papers

[1] F.Wang, K.J.Kyriakopoulos, T.Tsolkas, G.N.Saridis “A Petri-Net Coordination Model for an Intelligent Mobile Robot" *IEEE Trans. on System Man and Cybernetics*, Vol. 21, No 4, July/August 1991.

[2] K.J.Kyriakopoulos, G.N.Saridis “On-Line Collision Prediction for Mobile Robot Collision Avoidance under Uncertainty" *Robotersysteme*, Vol. 8, No. 2 1992

[3] K.J.Kyriakopoulos, G.N.Saridis “Minimum Distance Estimation and Collision Prediction under Uncertainty for On-line Robotic Motion Planning" *Automatica*, Vol. 28, No. 2, p.p. 389-394, 1992.

[4] K.J.Kyriakopoulos, G.N.Saridis “An Integrated Collision Prediction and Avoidance Scheme for Mobile Robots in Non-stationary Environments", *Automatica*, Vol. 29, No 2, March 1993, pp. 309 - 322

[5] K.J.Kyriakopoulos, G.N.Saridis “Minimum Jerk for Intelligent Planning and Control" *Robotica,* Vol. 12, pp 109-113, 1994.

[6] C.M.Rekkas, K.J.Kyriakopoulos and N.J.Krikelis “An Algorithm for the estimation of systematic error in radar measurements", *International Journal of Systems Science,* Vol.25, 1994

[7] K.J.Kyriakopoulos, G.N.Saridis “Optimal and Sub optimal Motion Planning for Collision Avoidance of Mobile Robots in Non-stationary Environments", *Journal of Intelligent & Robotic Systems,* 12:1-45, 1995

[8] G.J.Pappas and K.J.Kyriakopoulos “Stabilization of Nonholonomic Vehicles under Kinematic Constraints", *International Journal of Control,* Vol.61, No.4, 933-947, 1995

[9] A.Curran and K.J.Kyriakopoulos “Ultrasonic Navigation of a Wheeled Nonholonomic Vehicle", *Journal of Intelligent & Robotic Systems,* 12:239-258, 1995

[10] A.Curran and K.J.Kyriakopoulos “Sensor - Based Self Localization for Wheeled Mobile Robots", *Journal of Robotic Systems,* 12(3), 163-176, 1995

[11] K.J. Kyriakopoulos, A. Zink, M.S. Ali and H.E. Stephanou “Kinematic and Dynamic Modeling and Force/Position Control of the Anthrobot-2 Dexterous Hand”, *IEEE Transactions on Systems Man and Cybernetics*, Vol. 26, Part B, No 12., Dec. 1996.

[12] K.J. Kyriakopoulos, H.G. Tanner and N.J. Krikelis “Navigation of Nonholonomic Vehicles in Complex Environments with Potential Fields and Tracking*”, Int. Journal of Intelligent Control & Systems*, Vol. 1, No. 4, 487- 495 (1996)

[13] K.J. Kyriakopoulos, P. Yiannakos, V. Kallipolites and K. Domales “A Geometric Calibration Methodology for Single-Head Cone-Beam X-Ray Systems” *Journal of Intelligent and Robotic Systems,* Vol. 24, No. 2, February, 1999

[14] H.G. Tanner and K.J. Kyriakopoulos “Modeling of Two Mobile Manipulators Handling a Deformable Object”, *Journal of Robotic Systems*, Vol. 15(1), November 1998, pp. 599-624

[15] K.J. Kyriakopoulos, G. Migadis and K. Sarrigeorgidis “The NTUA Snake: Design, Planar Kinemtics & Motion Planning”, Journal *of Robotic Systems,* 1999, Vol. 16, Is. 1, pp 37-72

[16] G.Anoussaki and K.J. Kyriakopoulos “Simultaneous Localization and Map-Building for a Mobile Robot Based on Ultrasonics” *IEEE Robotics & Automation Magazine*, pp. 42-53, Vol. 6, Is. 3, Sep. 1999.

[17] H. G. Tanner, K. J. Kyriakopoulos and N. I. Krikelis, "Advanced Agricultural Robots: Kinematics and Dynamics of Multiple Mobile Manipulators Handling Non-rigid Material," *IFAC Journal on Computers and Electronics in Agriculture*, special issue on “AI and Smart Machines in Agriculture”, Elsevier, Volume 31, Issue 1, March 2001, pp 91-105.

[18] M.K.Viblis and K.J.Kyriakopoulos “Gesture Recognition: The Gesture Segmentation Problem”, *Journal of Intelligent and Robotic Systems*, Vol.28, pp 151-158, 2000

[19] H.Tanner and K.J. Kyriakopoulos “Mobile Manipulator Modeling with Kane’s Approach”, *Robotica,* vol.19, pp. 675-690, 2001

[20] H.Tanner and K.J. Kyriakopoulos “Kane's approach to modeling mobile manipulators”, *Advanced Robotics,* Volume 16, Number 1, 2002, pp. 57-85(29)

[21] H.Tanner and K.J. Kyriakopoulos “Backstepping for non smooth systems”, *Automatica,* Volume 39, Issue 7, July 2003, Pages 1259-1265

[22] H.Tanner, S.Loizou and K.J. Kyriakopoulos “Nonholonomic Navigation and Control of Cooperating Mobile Manipulators”, *IEEE Trans. On Robotics & Automation,* Feb 2003, Volume: 19, Issue: 1, page(s): 53- 64

[23] G.K. Fourlas, K.J. Kyriakopoulos and N.J Krikelis "Model Based Fault Diagnosis of Hybrid Systems Based on Hybrid Structure Hypothesis Testing" *JASS of Applied Systems Studies Methodologies and Applications for Systems Approaches,* vol. 4 (3), 2003

[24] G.K. Fourlas, K.J. Kyriakopoulos, N.J. Krikelis, “Contribution to the Model Based Fault Detection of Hybrid Systems”, *Asian Journal of Information Technology*, 3(7): 566-573, 2004

[25] G.K. Fourlas, K.J. Kyriakopoulos, N.J. Krikelis, “A general Framework for Model Based Fault Detection of Hybrid Systems”, *Asian Journal of Information Technology*, 3(7): 574-582, 2004

[26] G.K. Fourlas, K.D. Vournas, K.J. Kyriakopoulos, “Hybrid Systems Modeling for Power Systems”, *IEEE Circuit & Systems Magazine*, vol.4, issue 3, pp. 16-23, 2004

[27] S.G. Loizou and K.J. Kyriakopoulos "A feedback Based Multiagent Navigation Framework” International *Journal of Systems Science*, Vol. 37 (6), pp. 377-384, 2006

[28] D.V. Dimarogonas, S.G. Loizou, K.J. Kyriakopoulos and M.M. Zavlanos "A Feedback Stabilization and Collision Avoidance Scheme for Multiple Independent Non-point Agents", *Automatica*, Vol. 42, No. 2, pp. 229-243, February 2006.

[29] Xanthi Papageorgiou, Kostas J. Kyriakopoulos, “A Neuro-Dynamic Based Conflict Resolution Scheme for Air Traffic Management”, *JASS Journal of Applied Systems Studies, Methodologies and Applications for Systems Approaches,* Vol. 6, No. 3, March 2005.

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[34] S.G. Loizou and K.J. Kyriakopoulos "Navigation of Multiple Kinematically Constrained Robots", *IEEE Transactions on Robotics,* vol. 24 (1), pp. 221-231, Feb. 2008

[35] Emanuele Cattin, Stefano Roccella, Nicola Vitiello, Clemens Eder, Irene Sardellitti, Panagiotis K. Artemiadis, Pierpaolo Vacalebri, Fabrizio Vecchi, Maria Chiara Carrozza, Kostas J. Kyriakopoulos, Paolo Dario, "Design and Development of a Novel Robotic Platform for Neuro-Robotics Applications: the NEURobotics ARM (NEURARM)", *RSJ journal on Advanced Robotics*, special issue on "Robotic Platforms for Research in Neuroscience" RSJ Advanced Robotics, 22 (2008) 3–37.

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[37] D.V. Dimarogonas and K.J. Kyriakopoulos, "Connectedness Preserving Distributed Swarm Aggregation for Multiple Kinematic Robots", *IEEE Transactions on Robotics,* Vol. 24, No. 5, pp. 1213-1223, October 2008.

[38] D.V. Dimarogonas and K.J. Kyriakopoulos, "Inverse agreement protocols with application to distributed multi-agent dispersion", *IEEE Transactions on Automatic Control,* March 2009. Volume: 54, Issue: 3, pages: 657-663.

[39] D.V. Dimarogonas, P.Tsiotras and K.J. Kyriakopoulos "Leader-Follower Cooperative Attitude Control of Multiple Rigid Bodies", *Systems & Control Letters*, Vol. 58, No. 6, pp. 429-435, June 2009.

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[44] Giannis Roussos, Dimos V. Dimarogonas and Kostas J. Kyriakopoulos "3D Navigation and Collision Avoidance for Nonholonomic aircraft-like vehicles", *International Journal of Adaptive Control and Signal Processing,* Vol. 24, No. 10, pp. 900-920, September 2010

[45] George C. Karras, Savvas G. Loizou and Kostas J. Kyriakopoulos, "Towards semi-autonomous operation of under-actuated underwater vehicles: sensor fusion, on-line identification and visual servo control", *Autonomous Robots*, Vol. 31, No 1, 67-86, 2011

[46] X. Papageorgiou, H.G. Tanner, S.G. Loizou and Kostas J. Kyriakopoulos "Switching manipulator control for motion on constrained surfaces", *Journal of Intelligent and Robotic Systems: Theory and Applications*, Vol. 62, No 2, May 2011, pp. 217-239

[47] Giannis Roussos and Kostas J. Kyriakopoulos, "Decentralized Navigation and Conflict Avoidance for Aircraft in 3D Space", *IEEE Transactions on Control Systems Technology*, Vol. 20, No. 6, November 2012, pp. 1622- 1629.

[48] Nicolas A. Tsokas and Kostas J. Kyriakopoulos, "Multi-Robot Multiple Hypothesis Tracking for Pedestrian Tracking", *Autonomous Robots*, Vol. 32, Issue 1 (2012), 63-7

[49] D. Panagou and Kostas J. Kyriakopoulos, "Viability Control for a Class of Underactuated Systems", *Automatica,* 49 (2013), pp. 17-29

[50] Minas V. Liarokapis, Panagiotis K. Artemiadis, Kostas J. Kyriakopoulos and Elias S. Manolakos, "A Learning Scheme for Reach to Grasp Movements: On EMG-Based Interfaces Using Task Specific Motion Decoding Models", *IEEE Journal of Biomedical and Health Informatics*, Vol.17:5, pp.915-921, 2013

[51] Dimitra Panagou and Kostas J. Kyriakopoulos "Dynamic Positioning for an Underactuated Marine Vehicle using Hybrid Control", *International Journal of Control*, Vol.87:2, pp. 264-280, 2014.

[52] Dimitra Panagou, Herbert G. Tanner and Kostas J. Kyriakopoulos "Control Design for Chined Nonholonomic Systems via reference vector fields and output regulation", *ASME Journal of Dynamic Systems, Measurement and* Control 137.8(2015):081011-081011-9

[53] N. Palomeras, A. Carrera, N. Hurtos. G. C. Karras, C. P. Bechlioulis, M. Cashmore, D. Magazzeni, D. Long, M. Fox, K. J. Kyriakopoulos, P. Kormushev, J. Salvi, M. Carreras "Persistent autonomous intervention in a subsea panel", *Autonomous Robots* (*accepted*).

[54] P. Marantos, Y. Koveos, and Kostas J. Kyriakopoulos "UAV State Estimation using Adaptive Complementary Filters", *IEEE Transactions on Control Systems Technology*, issue:99, Oct. 2015, pp 1-13.

[55] P. Marantos, C. P. Bechlioulis and Kostas J. Kyriakopoulos "Robust Trajectory Tracking Control for Small-scale Unmanned Helicopters with Model Uncertainties", *IEEE Transactions on Control Systems Technology*, (accepted)

[56] C. P. Bechlioulis, Shahab Heshmati-Alamdari, George Karras and Kostas J. Kyriakopoulos "Trajectory Tracking with Prescribed Performance for Underactuated Underwater Vehicles under Model Uncertainties and External Disturbances", *IEEE Transactions on Control Systems Technology*, (accepted).

[57] Meng Guo, Charalampos P. Bechlioulis, Kostas J. Kyriakopoulos and Dimos V. Dimarogonas "Hybrid Control of Multi-agent Systems with Contingent Temporal Tasks and Prescribed Formation Constraints", *IEEE Transactions on Control of Network Systems*, (accepted).

[58] Christos K. Verginis, Charalampos P. Bechlioulis, Dimos V. Dimarogonas and Kostas J. Kyriakopoulos, "Robust Distributed Control Protocols for Large Vehicular Platoons with Prescribed Transient and Steady State Performance", *IEEE Transactions on Control Systems Technology*, (accepted).

[59] Minas V. Liarokapis, Charalampos P. Bechlioulis, Panagiotis K. Artemiadis and Kostas J. Kyriakopoulos, "Deriving Humanlike Arm Hand System Poses", *ASME Journal of Mechanisms and Robotics*, (accepted, 2016).

Book Chapters (Fully Refereed)

[1] K.J. Kyriakopoulos, K. Sarrigeorgidis and G. Migadis "A Novel Robotic Snake" in *Advances in Intelligent Autonomous Systems,* S.G. Tzafestas Ed., Kluwer, 1999

[2] H. G. Tanner and K. J. Kyriakopoulos, "A Manipulated Deformable Object as an Underactuated System," in D. Henrich and H. Worn (eds.), in *Robot Manipulation of Deformable Objects*, pp 175-198, Advanced Manufacturing Series, Springer, 2000.

[3] K.J. Kyriakopoulos and S.G. Loizou "Robotics: Fundamentals and Prospects" in Axel Munack (ed), in *CIGR Handbook of Agricultural Engineering* Volume 6: Information Technology, Part I, Chap. 2.

[4] S.G. Loizou and K. J. Kyriakopoulos "Multirobot Navigation Functions - I", in "Stochastic Hybrid Systems: Theory and Applications", "*Lecture Notes on Computer and Information Sciences*", Springer-Verlag, Vol. 337, 2006.

[5] D.V. Dimarogonas, S.G. Loizou and K.J. Kyriakopoulos "Multirobot Navigation Functions - II: Towards Decentralization", in "Stochastic Hybrid Systems: Theory and Applications", "*Lecture Notes on Computer and Information Sciences*", Springer-Verlag, Vol. 337, 2006.

[6] P.K. Artemiadis and K.J. Kyriakopoulos, "Human peripheral nervous systems controlling robots", in Yang Xiao and Fei Hu (eds.), in "*Bio-inspired Computing and Communication Networks*", Auerbach Publications, Taylor & Francis Group, CRC Presss, *to be published*.

[7] Panagiotis K. Artemiadis and Kostas J. Kyriakopoulos, "EMG-Based Position and Force Estimates in Coupled Human-Robot Systems: Towards EMG-Controlled Exoskeletons", in Experimental Robotics, Springer Publications, pp. 241-250, 2009

[8] Panagiotis K. Artemiadis and Kostas J. Kyriakopoulos, "Bio-inspired mechatronics and control interfaces", in "Perception-action cycle: Models, architectures and hardware" , Cutsuridis, Vassilis; Hussain, Amir; Taylor, John G. (Eds.), 1st Edition., 2011 Springer Series in Cognitive and Neural Systems, pp 749-775.

[9] Minas V. Liarokapis, Kostas J. Kyriakopoulos and Panagiotis K. Artemiadis, "A Learning Scheme for EMG Based Interfaces: On Task Specificity in Motion Decoding Domain" in "Neurorobotics: From Brain Machine Interfaces to Rehabilitation Robotics", Panagiotis K. Artemiadis (Ed.), Springer Series in "Trends on Augmentation of Human Performance", Springer Publications, 2014.

[10] Minas V. Liarokapis, Charalampos P. Bechlioulis, George I. Boutselis, and Kostas J. Kyriakopoulos, "A Learn by Demonstration Approach for Closed-Loop, Robust, Anthropomorphic Grasp Planning" in "Human and robot hands - Sensorimotor Synergies to Bridge the Gap between Neuroscience and Robotics", Matteo Bianchi and Alessandro Moscatelli (Eds.), Springer Series in "Trends on Augmentation of Human Performance", Springer Publications, 2015.

Fully Referred Conference Papers

[1] K.J.Kyriakopoulos, G.N.Saridis «Minimum Jerk Path Generation", IEEE *1988 International Conference on Robotics and Automation,* Philadelphia, PA, USA, April 1988

[2] K.J.Kyriakopoulos, G.N.Saridis «Minimum Distance Estimation and Collision Prediction under Uncertainty for On-line Robotic Motion Planning", *1990 IFAC, World Congress,* Tallinn, USSR, July 1990

[3] F.Wang, K.J.Kyriakopoulos, T.Tsolkas, G.N.Saridis «Formal Specification and Integration of an Intelligent Mobile Robotic System using Petri-Nets", *1990 Conference on Decision and Control,* Honolulu, Haw, USA, December 1990

[4] K.J.Kyriakopoulos, G.N.Saridis «Collision Avoidance of Mobile Robots in Non-stationary Environments", *1991 IEEE International Conference on Robotics and Automation,* Sacramento, CA, USA, April 1991

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[6] K.J.Kyriakopoulos, G.N.Saridis « Optimal Motion Planning for Collision Avoidance of Mobile Robots in Non-stationary Environments", *1992 American Control Conference,* Chicago, IL, USA, June 1992

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[11] M.S.Ali, K.J.Kyriakopoulos and H.E.Stephanou «The Kinematics of the Anthrobot-2 Dexterous Hand", *1993 IEEE International Conference on Robotics and Automation,* Atlanta, GA, USA, April 1993

[12] A.Curran and K.J.Kyriakopoulos «Sensor - Based Self Localization for Wheeled Mobile Robots", *1993 IEEE International Conference on Robotics and Automation,* Atlanta, GA, USA, April 1993

[13] A.Zink and K.J.Kyriakopoulos «Dynamic Modeling and Force/Position Control of the Anthrobot-2 Dexterous Hand", *1993 IEEE Conference on Decision and Control,* San Antonio, Texas, USA, December 1993

[14] K.J. Kyriakopoulos "Motion Tracking Control for an Autonomous Underwater Vehicle", *NSF Workshop on Underwater Robotics and Intelligent Control*, Lisbon, Portugal, March 1995.

[15] N. Karkanias, H.N. Koivo and K.J. Kyriakopoulos "Systems, Modeling & Control Theory Issues in the Global Operation of Industrial Processes" *7th IFAC/IFORS/IMACS Symposium on Large Scale Systems: Theory and Applications*, London, UK, July 1995.

[16] K.J. Kyriakopoulos, P. Kakambouras and N.J. Krikelis "Potential Fields for Nonholonomic Vehicles" *10th IEEE International Symposium on Intelligent Control*, Monterey, CA, USA, August 1995.

[17] K.J. Kyriakopoulos and J. Leventides "Control Issues for Systems of Switched Input", *34th IEEE Conference on Decision and Control*, New Orleans, Louisiana, USA, December 1995.

[18] K.J. Kyriakopoulos, P. Kakambouras and N.J. Krikelis "Navigation of Nonholonomic Vehicles in Complex Environments with Potential Fields and Tracking*", 1996 IEEE International Conference on Robotics and Automation*, Minneapolis, Minnesota, April 1996.

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[20] G. Migadis and K.J. Kyriakopoulos "Design and forward Kinematic Analysis of a Robotic Snake" *1997 IEEE International Conference on Robotics & Automation,* Albuquerque, NM, USA, May 1997

[21] K. Sarrigeorgides and K.J. Kyriakopoulos "Steering of a Robotic Snake" *1997 IEEE Mediterrannean Conference on Systems & Control,* Pafos, Cyprus, July 1997

[22] P.V. Pavlou and K.J.Kyriakopoulos "Wave Forces Identification and Compensation for an Underwater Vehicle", 4th *IFAC Conference on Manoeuvering & Control of Marine Craft*, Brijuni, Croatia, Sept. 10-12, 1997

[23] K. Sarrigeorgides and K.J. Kyriakopoulos "Feedback Stabilization and Trajectory Tracking for a Robotic Snake", *1997 IEEE Conference on Decision and Control,* San Diego, CA, USA, Dec. 1997

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