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RESEARCH INTERESTS

- Real Time Embedded Control Systems & Robotics – Applications to Unmanned Vehicles (ground, underwater, aerial)
- Neuro-Robotics: robotic control based on peripheral and central nervous system interfaces
- Air Traffic Management

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 #27, #28 where he served as Co-PI.

Current

- [1] "PANDORA - Persistent Autonomy through learNing, aDaptation, Observation and ReplAnning", EU, FP7 Cognitive Systems and Robotics (STREP), 420000 €, 2011-14
- [2] "R3-COP: Robust & Safe Mobile Co-operative Autonomous Systems", ARTEMIS Joint Technological Initiative, 297500€, 2010-2013.
- [3] "THE: The Hand Embodied", EU, FP7- 248587-2010- Cognitive Systems and Robotics (IP), 560000€, 2010-2014
- [4] "CESAR: Cost-efficient methods and processes for safety relevant embedded systems – SubProgram 6: Aerospace", ARTEMIS Joint Technological Initiative, 172000€, 2009-2012.

Completed

- [5] "*Safety, Complexity and Responsibility based design and validation of highly automated Air Traffic Management – iFLY*", EU, FP6-2005-TREN 4, 2006-2009, 242.500€
- [6] "*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.
- [7] "*Ship Hull Inspection using Remotely Operated Vehicles*", EUREKA (GSRT), 2006-2008, 64.000€. Cooperation with Marac S.A.
- [8] "*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.
- [9] FP6-2002-IST-001917 "*NEUROBOTICS: The Fusion of NEUROscience and roBOTICS for Augmenting Human Capabilities*", 2004 - 7, 420.000€ (IP)
- [10] FP6-2002-IST-1 "*I-SWARM : Intelligent Small World Autonomous Robots for Micro-Manipulation*", 2004 - 7, 410.000€ (IP)
- [11] "*EURON II : European Robotics Research Network II*", IST-2002-507728 (IST Future and Emerging Technologies), Greek National Representative, 2004-2008, 50.000€
- [12] "*Principles of Using the Navigation Functions Methodology for the Label Anti-Overlapping Problem*", C20047E/BM/05 Eurocontrol "Gre a Gre" contract, 2005, 25.000€
- [13] "*Modeling & Hybrid Control of Robotic Multi-arm Locomotion Systems with Holonomic & Nonholonomic Constraints*" 2003-2006 (National, NTUA), 15.000€.

- [14] “*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€
- [15] “*MICRON: MIniatuRe Co-operative RObots advancing towards the Nano-range*”, IST-2001-33567 (Future and Emerging Technologies), 2002-2005, 250.000€
- [16] “*HYBRIDGE: Distributed Control and Stochastic Analysis of Hybrid Systems Supporting Safety Critical Real-Time Systems Design*”, IST-2001-32460, 2002-2005, 280.000€
- [17] “*EURON : European Robotics Research Network*”, IST-2000-26048 (IST Future and Emerging Technologies), Greek Representative, 2000-2003, 10.000€
- [18] “*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 €
- [19] “*Coordination of a Pair of Mobile Robots during Indoors Tasks*”, Greek - Polish Cooperation (with Poznań University of Technology), 2000-2002, (National, GSRT), 12.000€
- [20] “*A Hybrid Systems Approach for Power Systems Analysis*”, 2000-2002 (National, ICCS-NTUA), 15.000€
- [21] “*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€
- [22] “*Development of Robotic Packaging System for Plastic Bowls*”, PABE-1999 (cooperation with PALAS S.A.), 2000-2001 (National, GSRT), 30.000€
- [23] “*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€
- [24] “*Semiautomatic Control of Underwater Vehicles via Teleoperation*”, Greek - French Cooperation (with CNRS-Grenoble), 1998-2000, (National, GSRT), 12.000€
- [25] “*NSCN: Breakthrough in Nonlinear Control Systems*”, EC-Training & Mobility for Researchers, 1997-2000, 50.000€
- [26] “*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

- 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 2009: 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”, Nice, 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 “13th 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 Soccer & 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 : 3rd 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 Transactions on Robotics*”, (2010 -)
- 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

- 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
- Member of Robotics, Control and Computer Societies of IEEE
- Full member of Technical Chamber of Greece

NTUA Service

- 2010 - : 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- : 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

- “*Robotics a Post-Industrial Technology*”, 4th Pan-Hellenic Congress of Electrical & Computer Engineering Students, November 19 -20, Patras, 2010
- “*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 – EAB, 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 Twin Rotating Disks 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

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

- George Karras "*Visual Servoing based Teleoperation for Remotely Operated Underwater Vehicles*", March 2011
- Grigoris Lionis "*Modelling and Hybrid Control of a Group of Articulated Micro Robotic Agents*", July 2009
- Xanthi Papageorgiou "*Motion Tasks for Neuro-Robotic Systems*", June 2009
- Panagiotis Artemiadis "Control Methodologies for Neuro-Robotic Systems", February 2009 (now Ass. Prof. at Arizona State University)
- Dimos Demarogonas "*Development of Decentralized Hybrid Control Methodologies with Application to the Collision Avoidance Problem*", November 2006 (now Ass. Prof. at KTH, Sweden)
- Georgia Anoussaki "Simultaneous Localization and Map Building of Skid-steered Robots in Unstructured Outdoor Environments", February 2006 (now at European Patent Office)
- Savvas Loizou "Automated Planning of Motion Tasks for Teams of Multiple Micro-Robotic Systems", September 2005 (now Ass. Prof. at Cyprus University of Technology)
- George Fourlas "Faults Diagnosis for Hybrid Systems", June 2004 (now lecturer at Higher Technological Institute, Lamia, Greece)
- Herbert Tanner "Motion Planning and Control of Multiple Mobile Manipulators Handling Non-rigid Objects", June 2001 (now Ass. Prof. at University of Delaware).

He has also supervised 8 Master's and 80 Diploma Theses, while he is currently supervising 8 Ph.D., 1 Master's and 8 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 Kinematics & 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.
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