



ANTHONY TZES
Professor
Electrical & Computer Engineering Program
Division of Engineering
New York University Abu Dhabi
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Birth Date: March 23, 1963
Birth Place: Athens, Greece

BIOGRAPHICAL VITAE

RESEARCH INTERESTS

Networked Controlled Systems, Adaptive and Robust Control; Robotics; MEMS Control; Neural Networks and Fuzzy Logic Applications for Intelligent Transportation Systems; Embedded Systems and Microcontrollers; Software Enabled Control

EDUCATION

B.Sc.E.E.	University of Patras, Greece	June 1985
M.Sc.	The Ohio State University, U.S.A.	March 1987
Ph.D.	The Ohio State University, U.S.A.	August 1990

PROFESSIONAL APPOINTMENTS

Program Head, Electrical and Computer Engineering, New York University (2018-)
Professor, Division of Engineering, New York University Abu Dhabi (2017-)
Director (Elected) of Graduate Program in Biomedical Engineering (2015-17)
Member (Elected) of University of Patras' Council, (2012 - 17)
Department Head – Electrical & Computer Engineering Department, University of Patras 2009-13
Visiting Professor – University of Loughborough, Department of Electrical & Electronic Engineering 2009-12
Professor - University of Patras (2008 -)
Chairman of the Hellenic Committee at the European Union for the initiatives on "Coherent Development of Policies", the "Regions of Knowledge" and "Research Potential" (2006 – 2009)
Steering Committee Member Director – ECE Department's -Computing Center UPAT (2006-present)
Deputy Department Head – Electrical & Computer Engineering Department, UPAT 2003-5
Director Center for Computer Aided Control Systems Design – UPAT (2004-present)
Associate Professor -University of Patras (1999 -2008)
Associate Professor (tenured) - Polytechnic University (1996 -1999)
Guest Scientist - Brookhaven National Laboratory (1993 - 94)
Assistant Professor - Polytechnic University (1990 - 1996)
Graduate Research Associate - The Ohio State University (1985-87, 89-90)
Research Associate - University of Patras (1983-84).

PROJECTS FUNDED

- Principal Investigator, Horizon 2020-ICT-2014-1, ICT-23-2014: Robotics, "AEROWORKS: Collaborative Aerial Robotic Workers", Awarded Amount €5,210,221.25 (UPAT's share €64,050)), 2015-8.

- Principal Investigator, General Secretariat for Research and Technology, “Development of a prototype real 3-D forming touch table for interactive 3-D Geographical Information System”, Awarded Amount €1,098,200, 2013-15.
- Primary Scientist, General Secretariat for Research and Technology, “Integrated Transportation System based on Collaborative Agents (Traffic Light Controllers”, 09ΣYN-52-768, Awarded Amount €300,000 (UPAT-share €61,494, 2012-15.
- Principal Investigator, Latsis Foundation, “Robotic Systems for Search and Rescue Missions”, Awarded Amount €12,000, Jan. 2011-Dec. 2011.
- Principal Investigator, UPAT, General Secretariat for Research and Technology (project 12.260.6), “Control of Collaborative Aerial Robotic Vehicles”, Awarded Amount €45,000, Sep. 2010-13.
- Principal Investigator, UPAT, General Secretariat for Research and Technology (project 12.261.6), “Design and Control of a Biomimetic-Energized Anthropomorphic Hand”, Awarded Amount €45,000, Sep. 2010-13.
- Principal Investigator, UPAT, Hellenic Ministry of Foreign Affairs, “Development of a System for Wireless Transfer of Medical Data for Coordination and Control of Disastrous Incidents in the Region of South Serbia”, Awarded Amount €225,000, Feb. 2009-10.
- Principal Investigator, UPAT- Basic Research Program “Caratheodory”, “Fault Detection and Adaptive Robust Control of Micro-Actuators”, Awarded Amount €24,000, Oct. 2006-9.
- Principal Investigator, UPAT, General Secretariat for Research and Technology, PENED-B.659, “Design and Development of a Wireless Adaptive Remote Control with Emphasis on the QoS-Optimization”, Awarded Amount €37,550, Nov. 2005-8
- Principal Investigator, Hellenic Ministry for the Environment, Physical Planning & Public Works, «Expert’s Services for Supporting the Directorate of Highway Maintenance of the General Secretariat of Public Works in Projects related to Road Safety”, Awarded Amount €18,000 (Jan.-Apr. 2006)
- Principal Investigator –Alcatel-Alenia’s Space Italia S.p.A. (on behalf of E.S.A.’s Project for the “Lunar Exploration Architecture – STUDY Phase 1 (Academic Architecture & BB Definition [WP12530 – Robotics])”, entitled “MANET Intercommunication for Robotic Applications for Lunar Exploration”, Awarded Amount €10,000 (Nov. 2005 - May 2006)
- Principal Investigator, UPAT, EU Integrated Project IST-004536-RUNES, “Reconfigurable Ubiquitous Networked Embedded Systems”, (Awarded Amount €6,5M, UPAT’s share €103,000), 2004-7.
- Primary Scientist, UPAT, EU Network of Excellence IST-511368 HYCON, “Hybrid CONTROL: Taming Heterogeneity and Complexity of Networked Embedded Systems, (Awarded Amount €4,6M), 2004-8.
- Faculty Associate, UPAT, EU Specific Targeted Project AST3-CT-2003-502915 MESEMA, “Magnetoelastic Energy Systems for Even More Electric Aircraft”, Awarded Amount €5,474.162 (UPAT’s share €34,065), 2004-6.
- UPAT’s ECE-Department Principal Investigator, Ministry of National Education – European Social Fund II, «Supplementary Instrumentation for Educational Purposes of the ECE-Department», Awarded Amount €21.632, 2004.
- Primary Scientist, UPAT- ECE Department, Ministry of National Education, European Social Fund II, “ECE-Department’s Undergraduate Curriculum Restructuring”, 2003-7.
- Principal Investigator, UPAT, Coca-Cola HBC, “Development of an integrated turnkey for energy consumption measurement”, Awarded Amount €4900, Jun.-Dec. 2003
- Principal Investigator, UPAT, Ministry of National Education – European Social Fund II, Herakleitos Program, “Adaptive Control of Networked Embedded Systems”, Awarded Amount €3.111, Nov. 2002- Dec. 2006.
- Chief Technical Officer, UPAT, Region of Western Greece, EU – Program INNACT-RWG 2002-3 Action 3.1, “Development of an advanced technological system for treatment of emergency medical incidents”, Awarded Amount €293.500, Jan. 2003 – Dec. 2003.
- Principal Investigator, UPAT- Basic Research Program “Caratheodory”, “Adaptive Robust Remote Control of Time-Varying Systems”, Awarded Amount €23.478, Oct. 2001-4.
- Primary Scientist, UPAT, General Secretariat for Research and Technology, “Automated Optimization Sequential Batch Reactors for Nitrogen Removal from Liquid Waste”, Awarded Amount GRD 58M, Jan. 2002-Dec. 2002

<h4>Research Projects while in U.S.A.</h4>
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| <ul style="list-style-type: none"> • Principal Investigator (w/ V. Kapila) National Science Foundation, “Development of an internet-based laboratory for distance learning in mechatronics” Awarded Amount \$218,216, July 1999-Dec. 2000. |
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- Co-Principal Investigator (w./ J.Falcocchio and E.Serafin), Transportation Infrastructure Research Consortium (Calspan, Polytechnic U., City College of New York, Brookhaven National Lab): Integrated Emergency Communication Network for New York City (PIN X804.13), Awarded Amount: \$5,000,000 (Polytechnic's Share \$600,000). Duration: Oct. 97 - Sep. 99.
- Principal Investigator (w./ J.Falcocchio and E.Serafin), University Transportation Research Consortium & NYCDOT: Using Wide Area Detection for Curb Lane Management in New York City, Awarded Amount (pending contract negotiations) \$495,044 . Duration: Dec. 1997 - Aug. 1999.
- Principal Investigator, University Transportation Research Consortium & NJDOT: Evaluation of ISDN Video Transmission to a Traffic Operations Center, Awarded Amount \$55,000. Duration: Nov. 1997- Apr. 1998.
- Principal Investigator (w./ J.Falcocchio and E.Serafin), NYCDOT: Advanced Traveler Information Dissemination System for NYC Based on the World Wide Web, Awarded Amount \$36,000. Duration: Jun. 1997 - Dec. 1997.
- Faculty Associate, NYSERDA: Smart Control and Diagnosis of Heating Systems, Awarded Amount \$122,000. Duration: Jan 1997 - Dec. 1997.
- Principal Investigator (w./ G.Vradis), Long Island Lighting Company: Optimization of the Operation, Control System, and Sizing of Natural Gas Vehicle Fueling Stations, Awarded Amount \$167,076. Duration: May 1995 - Apr. 1997.
- Research Principal, New York City Department of Transportation: The New York City Urban ITS Center, Awarded Amount \$479,868, Duration: Oct. 1995 - Oct. 1996.
- Faculty Associate, Region II University Transportation Research Center and NYSERDA: Advanced Control Concepts for Transit, Awarded Amount \$72,000, Duration: Jan. 1994 - Dec. 1995.
- Principal Investigator (w./ V.Tsotras and L.Tassiulas), Long Island Lighting Company, and New York Gas Group: Statistically Validated Algorithm Development for Predicting Response Time to Customer Service Requests, Awarded Amount \$154,359. Duration: Jul. 1993 - Jul. 1995.
- Principal Investigator (w./ W.McShane), NYSERDA University Research Program PRDA 202-91: Energy Efficient Traffic Control through Wide Area Detection and Fuzzy Logic, Awarded Amount \$355,966, Duration: Jan. 1992 - Jun. 1995.
- Principal Investigator (w./ W.McShane), Brookhaven National Laboratory: Congestion Forecasting Model for Intelligent Vehicle Highway Systems, Awarded Amount \$91,908, Duration: Mar. 1994 - Oct. 1994
- Co-Principal Investigator (w./ T.Stouraitis), Greek Ministry of Industry, Secretariat of Research and Technology: Applications of Petri Networks to Computer Architectures for Process Control, Duration: Sep. 1992 - Sep. 1994.
- Co-Principal Investigator (w./ W.McShane), F.Mier and Associates Inc.: Traffic Simulation of Continuous Flow Intersection, Awarded Amount \$7,500, Duration: Nov. 1992 - Nov. 1993.
- Principal Investigator, NSF Research Equipment Grant Program: Engineering Research Equipment: Neural Network Computer for Real Time Control, Awarded Amount \$45,135, Duration: Sept. 1991 - Sept. 1992.

Equipment Grants

- Principal Investigator, Polytechnic University (Teagle Foundation), Internet Based Control Designs for Mechanical Systems, Awarded Amount \$15,000, Duration Oct. 97 - Jan. 98.
- Co-Principal Investigator (w./ V.Kapila), Motorola Corp., DSP-controller boards for development of a mechatronics laboratory, Awarded Amount (valued at) \$2,000, (Dec. 1996)
- Principal Investigator, Polytechnic University Laboratory Improvement Seed Program, Development of Computer-Aided Experimentation for the Instrumentation and Control Laboratory, Awarded Amount \$40,000, (Sep. 95).
- Principal Investigator, Sun Microsystems Computer Corporation, Scientific Visualization of Control/Structure Interaction (Finite Element Static and Dynamic Analysis and Design) - Equipment Grant, Awarded Amount \$47,940, Duration Jun. 1994 - Jun. 1995.
- Principal Investigator, Grumman Corporation, Equipment Grant through the Corporate Contribution Program, Awarded Amount (valued at) \$23,750 , Dec. 1992.
- Principal Investigator, International Business Machines (IBM) Corporation, Computer-Matching Grant for software development, Awarded Amount (valued at) \$10,877, Jun. 1992.
- Principal Investigator, Polytechnic University, Control Laboratory Research Laboratory Development (Seed Funds), Awarded Amount \$30,000, Jun. 1990.

CONSULTING/COLLABORATIONS

- Hellenic Ministry of Tourism, Evaluator for an Integrated System for Information Uploading and Retrieval for On-Line Tourist-Accommodations
- Hellenic General Secretariat of Research and Technology, Evaluator of Research Proposals
- Hellenic Ministry of Education, Evaluator of Research Proposal
- New York State Gas Group, 'Neural Network Assisted Prediction for Electric Load Supply and Demand.'
- Transportation Engineering - Grumman Aerospace Corporation, 'Infrared Sensor for Traffic Monitoring Purposes'.
- Microsoft Corporation, 'b-version evaluation of the IMSL-library, and the Fortran Ver.4 for the MS-Windows environment.

PROFESSIONAL SOCIETY MEMBERSHIPS

- Member of Sigma Xi, the Scientific Research Society (1993 - 99).
- IEEE Senior Member (Control Systems Society)
- ASME Member (Division of Dynamic Systems, Measurement and Control, 1990-99).
- Member of the Greek National Technical Chamber (August 1985 - present).
- Member of the Hellenic Committee in the European Control Association (2001-7)
- Chairman of the Greek Chapter of the IEEE Control Systems Society (2005-current)

TEACHING ACTIVITY

Associate Professor & Professor– University of Patras (1999-current)

Courses Taught

1. Feedback Control (5th semester UG-course)
2. Discrete Feedback Control (6th semester UG-course)
3. Introduction to Robotics (7th semester UG-course)
4. Adaptive Control (9th semester UG-course / G –course)
5. Robust Control (9th semester UG-course / G – course)
6. Neural Networks (G-course)
7. Nonlinear Control (G-course)

Faculty Associate – Democritus University of Thrace (2004-current)

Courses Taught

1. Intelligent Transportation Systems

Associate Professor - Polytechnic University (1996 - 9)

Assistant Professor - Polytechnic University (1990 - 6)

- Development of the Instrumentation/Control Laboratory (ICL). Research conducted at ICL pertains to applications of neural networks, fuzzy logic, and adaptive control to mechanical systems (robotic arms, air-flow systems, pump and hydraulic systems control).
- Developed the Graduate Program in Control/Robotics within the Mechanical Engineering Department (7 new courses). Developed the Mechatronics Laboratory. Coordinated the senior-level project sequence and all undergraduate courses in control/robotics.

Courses developed/taught

1. Co-participant in the Engineer In Training (E.I.T.) lecture series (August 1994).
2. Nonlinear Control (ME761).
3. Neural Network Applications (ME886).
4. Adaptive Control (ME871, co-listed with EL924).
5. Discrete Feedback Control (ME660).
6. Sensor Based Robotics (ME661, co-listed with EL522).
7. Classical Feedback Control (ME691).
8. Linear Systems II (Guided Studies) (ME901).

9. Robot Force Control (Guided Studies) (ME902).
 10. Introduction to Design (EG102) (Lecturer co-participant).
 11. Instrumentation (ME321).
 12. Senior Design Project (ME361 and ME362).
 13. Instrumentation and Controls Laboratory (ME324).
 14. Responsible for the Graduate Program in Control/Robotics within the Mechanical Engineering Department.
- Summer Intern Supervisor - Youth in Engineering and Science (YES) Center, Coordinator for the Mechanical Engineering Department (1993-current).

INDUSTRIAL ACTIVITY

- Research Faculty Affiliate – Grumman Aerospace Corp. (1993)
- Electrical Engineer - Greek Electric Power Company. Assisting in several projects concerning power transmission.

PROFESSIONAL ACTIVITIES (in chronological order)

- Keynote Speaker, 10th Hellenic Conference on Artificial Intelligence (SETN2018), July 9 -12, 2018, Patras, Greece
- Keynote Speaker, 14th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications (IEEE MESA 2018), July 2-4, 2018, Oulu, Finland
- Associate Editor, 1st IEEE Conference on Control Technology and Applications, (CCTA2017), August 27-30, 2017, Hawaii, USA
- Program Chairman of the 24th 2016 Mediterranean Conference on Control and Automation, Athens, Greece.
- Member of the Steering Committee of the 21st 2013 Mediterranean Conference on Control and Automation, Chania, Greece.
- Organizer of Invited Session WeA5 with theme “Applications of Control in Aerospace, 21st 2013 Mediterranean Conference on Control and Automation, Chania, Greece
- Keynote plenary speaker in the 14th IASTED International Conference on Control and Automation, Crete, Greece, June, 2012
- International Program Committee Member (Chair – Robotics and Mechatronics Technical Sessions) of the 2012 IEEE International Conference on Industrial Technology (ICIT 2012), March 2012, Athens, Greece.
- Chairman of the 17th IEEE Mediterranean Conference on Control and Automation, Corfu, Greece, June 2011.
- International Program Committee Member of the 2010 IEEE Conference on Automation Science and Engineering, Toronto, Canada, August 2010.
- International Program Committee Member (and Session Co-Chairman) of the 18th IEEE Mediterranean Conference on Control and Automation, Marrakech, Morocco, June 2009.
- International Program Committee Member of the 2009 IEEE Conference on Automation Science and Engineering, Bangalore, India, August 2009.
- Program Committee Member of the 6th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2008), Milan, Italy, USA, July 2009.
- International Program Committee Member (and Session Chairman) of the 17th IEEE Mediterranean Conference on Control and Automation, Thessaloniki, Greece, June 2009.
- Technical Program Committee Member of the Second International Conference on Robot Communication and Coordination (ROBOCOMM 2009), Odense, Denmark, April 2009.
- International Program Committee Member of the 2008 IEEE Conference on Automation Science and Engineering, Washington DC, USA, August 2008.
- Program Committee Member of the 5th International Conference on Informatics in Control, Automation and Robotics (ICINCO 2008), Funchal, Madeira, Portugal, USA, May 2008.
- International Program Committee Member of the 2008 IEEE International Conference on Networking, Sensing and Control, Sanya, China, April 2008.
- Technical Program Committee Member of the First International Conference on Robot Communication and Coordination (ROBOCOMM 2007), Athens, Greece, October 2007.
- Organizing Committee Co-chair and Member of the Conference Editorial Board of the 2007 European Control Conference, Kos, Greece, July 2007.

- International Program Committee Member (and Session Chairman) of the 15th IEEE Mediterranean Conference on Control and Automation, Athens, Greece, June 2007.
- Session Chairman «Computational Fluid Dynamics III» at the “2nd International Conference – Scientific Computing to Computational Engineering”, July 2006, Athens, Greece
- International Program Committee Member (and Session Chairman) of the 14th IEEE Mediterranean Conference on Control and Automation, Ancona, Italy, June 2006.
- International Program Committee Member (and Session Chairman) of the 13th IEEE Mediterranean Conference on Control and Automation, Limassol, Cyprus, June 2005.
- Invited Speaker of UPAT’s Medical School – presented a series of lectures on “Recent technological advances in pre-hospital trauma-treatment of injured persons”, April 2005, Rio, Greece
- Invited Speaker at the symposium organized by the Region of Western Greece related to the review meeting for the program INNACT-RWG, for the project «Implementation of an advanced technological system for treatment of medical-emergency situations (pre-hospital trauma medical support services)», March 29-30, 2004, Patras, Greece.
- Invited Speaker at the Workshop “Teaching automatic control at the Electrical divisions at the lyceums”, March 19-21, Athens, Greece.
- Senior Member IEEE (2003 – current)
- Session Chairman of the 11th IEEE Mediterranean Conference on Control and Automation, June 2003, Rhodes, Greece.
- Invited Speaker at the Workshop “Surgery Updates in the prefecture of Achaia”, March 2003, Rio, Greece.
- Member of the Hellenic Delegation of the European Control Association (EUCA) Administrative Council (2001 - 2007).
- Invited Speaker at the Workshop “Robotics” of the Hellenic “Artificial Intelligence Network”, March 2001.
- Προσκεκλημένος Ομιλητής Σεμιναρίου «Μεθοδολογίες Αυτομάτου Ελέγχου και Ρομποτικής», Δικτύου ΚΤΗΣΙΒΙΟΣ, Μαρ. 2001.
- Program Chairman of IFAC’s Symposium in Manufacturing, Modeling, Management and Control, Patras, Greece, 2000.
- Organizing Committee Member of the 2000 IEEE International Symposium on Intelligent Control, Patras, Greece, June 2000.
- Organizing Committee Member of the 8th IEEE Mediterranean Conference on Control and Automation, Patras, Greece, June 2000.
- Reviewer for proposals submitted at the Hellenic Secretariat for Research (1999 - current) and Technology and the Democritus University of Thrace
- Reviewer for proposals (2000) at the (NSF-Undergraduate Division), U.S.A.
- Member of the International Program Committee of the 1998 IMACS Symposium on Soft Computing in Engineering Applications (SOFTCOM '98), Athens, Greece.
- Invited Plenary Speaker of the Forum on `Fluid Mechanics and Heat Transfer' in the International Mechanical Engineering Conference & Exposition (IMECE'96), `Applications of Fuzzy Logic to Identification and Control Problems Fluid Mechanics and Heat Transfer' November 1996, Atlanta, GA.
- Member of the 1997 American Control Conference Program Committee.
- Member of the IEEE Control System Society's Conference Editorial Board, (1996-2002).
- Member of the Organizing Committee of the International Conference on Electronics, Circuits, and Systems (ICECS'96), Rhodes, Greece.
- Proposal Reviewer for the Idaho State Board of Education, March 1996.
- Session Chairman: `Adaptive Control Applications', Control and Decision Conference, December 1995.
- Session Chairman: `Robust Control II', American Control Conference, June 1995.
- Session Co-Chairman: `Flexible Structures I', American Control Conference, June 1995.
- Member of the New York City's Intelligent Transportation Systems Committee (TC-I), April 1995.
- Senior Representative of the IEEE Communications Society to the IEEE's Technical Activities Board (TAB) Committee on ITS.
- Committee Member for the Development of a Joint Research Program on Intelligent Transportation Systems between New York City and Paris, France, November 1994.
- Member of the Organizing Committee for the 10th IEEE International Symposium on Intelligent Control, August 1995.
- Member of the Organizing Committee for the Intelligent Transportation Society of New York (ITS-NY) Research Conference on Intelligent Transportation Systems, Troy, NY, September 1994.

- Participant to the Mechatronics Workshop sponsored by The Synthesis Coalition of the National Science Foundation, Palo Alto, CA, July 1994.
- Session Co-Chairman: 'Fuzzy Control - Robotics Applications', American Control Conference, June 1994.
- Member of the Liaison Committee to the IEEE Press for the Control Systems Society, 1993.
- Member of the Advanced Traffic Management System (ATMS) Committee of the ITS-America Group.
- Session Chairman: 'Nonlinear Control in Mechanical Applications', American Control Conference, June 1993.
- Member of the Organizing Committee and Local Arrangements Chairman for the IEEE Regional Conference on Control Systems Applications, July 1992.
- Member of the ASME Panel Review Committee for the ASME Regional Student Conference, May 1992.
- Participant by invitation from the Federal Highway Administration to the IVHS Session on Dynamic Traffic Assignment, February 1992.
- Session Chairman 'Robotic Applications', IEEE Conference on Decision and Control, December 1991.
- Invited Speaker on University of Patras Interdisciplinary Seminar on Control Applications 'Self-Tuning Algorithms for Control Structure Interaction', June 1991.
- Session Chairman 'Distributed Parameter Systems I', IEEE Conference on Decision and Control, December 1990.
- Session Co-Chairman: 'Flexible Structure Control', IEEE Conference on Decision and Control, December 1990.
- Session Co-Chairman: 'On-Line Identification for Control', IEEE Conference on Decision and Control, December 1990.
- Invited Speaker on New Jersey's Institute of Technology (NJIT) Interdisciplinary Seminar on Systems and Control 'Intelligent Controller Design Using Petri Nets', October 1990.
- IEEE Transactions on Automatic Control, Reviewer;
- Transactions on Embedded Computing Systems, Reviewer;
- Mechatronics, Reviewer;
- ASME, Journal of Dyn. Sys. Meas., and Control, Reviewer;
- IEEE Transactions on Robotics and Automation, Reviewer;
- IEEE Transactions on Signal Processing, Reviewer;
- Journal of Robotic Systems, Reviewer;
- Mc-Graw Hill Publishing Corp., Addison Wesley, and IEEE Press, Book Reviewer.

UNIVERSITY SERVICE

- **UPAT Council (Board of Trustees/Regents) Member** (2012 - 17)
- UPAT ECE Department Head (2009-13)
- Deputy ECE Department Head (2003-5)
- Chairman of UPAT-ECE's Department Committee on Teaching Assistanships (2003-5)
- Member of UPAT-ECE's Department Committee on Graduate Program (2000 - current)
- Reviewer of proposals on behalf of UPAT

Polytechnic University

- Member of Faculty Executive Committee, September 1996 - 99.
- Member of Steering Team, May 1996 - 99.
- Member of Information Systems Team, November 1995 - 99.
- Chairman of Educational Policy Committee, September 1995 - 99 (elected).
- Member of Board of Trustees Committee, September 1995 -99 (nominated).
- Coordinator for the Mechanical Engineering Department's Open House Events (Brooklyn Campus), September 1992 - 99.
- Chairman: 'Research Computing Users Council', March 1994 - 99.
- Chairman: 'Library Committee', April 1995 - May 1996.
- Library operations coordinator for the Mechanical Engineering Department, January 1992 - 99.

AWARDS AND HONORS

- Prof. Tzes' research work has achieved the following marks according to the Harzing's Publish or Perish report (dated 2018)

Papers:	364	Cites/paper:	13.42	h-index:	38
Citations:	5049	Cites/author:	1807.52	g-index:	58
Years:	32	Papers/author:	142.22	hI,norm:	20
Cites/year:	155.35	Authors/paper:	2.88		

University of Patras

- Co-author of the article ``Model predictive quadrotor control: attitude, altitude and position experimental studies'' acknowledged as the best paper published in 2014 in IET Control, Theory & Applications.
- Co-author of the article "Development and Experimental Verification of a Mobile Client-Centric Networked Controlled System" that received the EU- ECC 2003 IST Prize Award Cambridge, UK, September 2003.

Polytechnic University

- Supervisor of the best senior design project (on `Design and Control of a Solar Tracking Mechanism') for the Mechanical Engineering Department during the 1995-96 academic year.
- Supervisor of the best senior project (on `Design and Control of a 5 D.O.F. Robot Manipulator') for the Mechanical Engineering Department during the 1994-95 academic year.
- Supervisor of the best senior project (on `Discrete Control Design for a Thermal System') for the Mechanical Engineering Department during the 1993-94 academic year.
- Distinguished Scientist Status Award from the Greek Department of Defense, 1991-1995.
- Reprinted paper [2] in the Selected Reprint Volume `Robot Control, Dynamics, Motion Planning and Analysis' sponsored by the IEEE Control Systems Society, IEEE Press, November 1992.
- Supervisor of the best senior project (on `Animation for Robot Kinematics') for the Mechanical Engineering Department during the 1992-93 academic year.
- Supervisor of the best senior project (on `Development of a Wireless Control System for an Automated Guided Vehicle') for the Electrical Engineering Department during the 1992-93 academic year.
- Supervisor of the award winning senior design project (on `Robot Gripper Design for Space Applications')(3rd place in the 1990 ASME Student Regional Meeting, held at Puerto Rico).
- Recipient of five consecutive IKY (State (Greek) Scholarship Foundation) Scholarships for excellent academic performance, 1980 - 1985.
- Recipient of four Praises from the Greek Ministry of Education for excellent academic performance, 1976 - 1980.

PUBLICATIONS

JOURNAL PUBLICATIONS

- J1. S. Yurkovich, F. Pacheco, and A. Tzes, [[YPT89_ieeetac](#)] `On-Line Frequency Domain Information for Control of a Flexible-Link Robot with Varying Payload', In IEEE Transactions on Automatic Control, vol. AC-34, pp. 1300-1304, December 1989.
- J2. S. Yurkovich and A. Tzes, [[YT90_ieeecsml](#)] `Experiments in the Identification and Control of Flexible-Link Manipulators', In Control Systems Magazine, vol. 10, pp. 41-47, February 1990. Reprinted in Robot Control, A Selected Reprint Volume, IEEE Control Systems Society Sponsor, pp. 355-360, November 1992.
- J3. A. Tzes and S. Yurkovich, [[TY90_asme](#)] `A Frequency Domain Identification Scheme for Flexible Structure Control', In Trans. ASME, J. Meas., Dyn., and Control, vol. 112, pp.427-434, September 1990.
- J4. A. Tzes and S. Yurkovich [[TY91_ijrr](#)], `Application and Comparison of On-Line Identification Methods for Flexible Manipulator Control', In International Journal of Robotics Research, vol. 10, pp. 515-527, October 1991.
- J5. C.Chan and A. Tzes, [[CT92_asee](#)], `Symbolic Modeling and Computer Animation for Direct and Inverse Robot Kinematics', In ASEE Computers in Education Journal, vol. 2, pp. 49-53, December 1992.
- J6. A. Tzes and S. Yurkovich, [[TY93_ieeetcsst](#)] `An Adaptive Input Shaping Control Scheme for Vibration Supression in Slewing Flexible Structures', In IEEE Transactions on Control Systems Technology, vol. 1, no. 2, pp. 114-121, June 1993.
- J7. A. Tzes, P-Y.Peng, and F. Khorrami, [[TPK93_jifs](#)] `Fuzzy Neural Network Control for a Slewing Single Flexible Link Manipulator', In Journal of Intelligent and Fuzzy Systems, vol. 1, no. 4, pp. 319-334, December 1993.
- J8. F. Khorrami, S.Jain and A. Tzes, [[KJT94_ieeetra](#)] `Experiments on Rigid Body Based Controllers with Input Preshaping for a Two Link Flexible Manipulator', In IEEE Transactions on Robotics and Automation, pp. 55-65, Vol. 10, February 1994.
- J9. A. Tzes, and K.Kiriakides, [[TK94_jirs](#)] `A Hybrid Frequency-Time Domain Adaptive Fuzzy Control Scheme for Flexible Link Mamipulators', In Journal of Intelligent and Robotic Systems, vol. 10, pp.283-300, December 1994.
- J10. F. Khorrami, S.Jain and A. Tzes, [[KJT95_aut](#)] `Experimental Results on Adaptive Nonlinear Control and Input Preshaping for Multi-Link Flexible-Link Manipulators', In Automatica, vol. 31, no. 1, pp. 83-97, January 1995.
- J11. A. Tzes, P-Y. Peng, and C-C. Houg, [[TPH95_ieeeeie](#)] `Neural Network Control for DC-Motor Micromaneuvering', In IEEE Transactions of Industrial Electronics, vol. 42, no. 5, pp. 516-523, October 1995.
- J12. A. Tzes and K. Le, [[TL96_mssp](#)] `Application of Frequency Domain Adaptive IIR Filtering for Identification of Flexible Structure Dynamics', In Mechanical Systems and Signal Processing, vol. 10, no. 1, pp. 65-91, February 1996.
- J13. S. Jain, P-Y. Peng, A. Tzes, and F. Khorrami, [[JPTK96_jirs](#)] `Neural Network Designs with Genetic Learning for Control of a Single-Link Flexible Manipulator', In Journal of Intelligent and Robotic Systems, vol. 15, pp. 135-151, February 1996.
- J14. N. Koussoulas and A. Tzes, [[KT96_ieeecsml](#)] `Control Education in Greece', In Control Systems Magazine, vol. 16, no. 2, pp. 26-29, April 1996.
- J15. A. Tzes, S. Kim, and W. McShane, [[TKM96_ieeetvt](#)] `Applications of Petri Networks to Transportation Network Modeling', In IEEE Transactions on Vehicular Technology, vol. 45, no. 2, pp. 391-400, May 1996.
- J16. A. Tzes and K. Le, [[TL96_aut](#)] `Weighted Minimum Uncertainty Prediction Control', In Automatica, vol. 32, no. 5, pp. 793-795, May 1996.
- J17. A. Tzes, K. Le and P-Y. Peng, [[TLP97_ieecta](#)] `Adaptive Performance/Robust Control Design for Discrete Systems', In IEE Proceedings-Control Theory and Applications, vol. 144, no. 1, pp. 95-102, January 1997.

- J18. A. Tzes, J. Guthy, and W.R. McShane, [[TGM97_ieeecsm](#)] `Recent Developments on a Mechatronics/ Design Project Laboratory', In Control Systems Magazine, vol. 17, no. 1, pp. 72-79, February 1997.
- J19. A. Tzes, and P-Y. Peng, [[TP97_asme](#)] `Fuzzy Neural Network Control for DC-Motor Micropositioning', In Trans. ASME, J. Meas., Dyn., and Control, vol. 119, no. 2, pp. 312-315, June 1997.
- J20. J. Borowiec and A. Tzes, [[BT97_asme](#)] `Linear Quadratic Frequency-Shaped Implicit Force Control of Flexible Link Manipulators', In Trans. ASME, J. Measurements, Dynamics and Control, September vol. 119, no. 3, pp.405-411, 1997.
- J21. A. Tzes and W.R.McShane, [[TM97_trbr](#)] `Development of a Prototype Video-Based Sensor for Vehicle Detection from Stand-Still Images', In Transportation Research Board Record, no. 1570, pp. 202-210, September 1997.
- J22. A. Tzes and K. Le, [[TL97_ijc](#)] `Adaptive Weighted Minimum Uncertainty Prediction Control', In International Journal of Control, vol. 68, no. 3, pp.657-672, 1997.
- J23. A. Tzes, and K. Le, [[TL97_ijacsp](#)] `Adaptive Performance/Robust Control Design using Orthotopic Set Membership Identification for Low Dimensional Systems', In Int'l J. of Adaptive Control and Signal Processing, vol. 11, no. 8, pp. 649-663, Dec. 1997.
- J24. A. Tzes and K. Le, [[TL97_aut](#)] `Sufficient Stability Conditions for the Weighted Minimum Uncertainty Prediction Controller', In Automatica, vol. 33, no. 12, pp.2273-2275, Dec. 1997.
- J25. A. Tzes, P-Y.Peng, and J.Guthy, [[TPG98_ieeecst](#)] `Genetic-Based Fuzzy Clustering for DC-Motor Friction Identification and Compensation', In IEEE Transactions on Control Systems Technology, vol. 6, no. 4, pp.462-472, Jul. 1998.
- J26. K.Kiriakidis, A.Grivas, and A. Tzes, [[KGT98_fss](#)] `Quadratic Stability Analysis of the Takagi-Sugeno Fuzzy Model', In Fuzzy Sets and Systems, vol. 98, no. 1, 1998.
- J27. K. Karagiani, T. Chronopoulos, A. Tzes, N. Koussoulas, and T. Stouraitis, [[KCTKS98_ieecta](#)] `Efficient Processor Arrays for the Implementation of the Generalized Predictive Control Algorithm', In IEE Proceedings-Control Theory and Applications, vol. 145, no. 1, pp.47-54, 1998.
- J28. K. Kiriakidis, A. Tzes, A. Grivas, and P-Y. Peng, [[KTGP99_ieeecst](#)] `Modelling, Plant Uncertainties, and Fuzzy Logic-based Sliding Control of Gaseous Systems', In IEEE Transactions on Control Systems Technology, vol. 7, no. 1, pp.42-55, Jan. 1999.
- J29. D. Bivolaru, M.V. Otugen, A. Tzes, and G. Papadopoulos, [[BOTP99_aiaa](#)] `Image Processing for Interferometric Mie and Rayleigh Scattering Velocity Measurements', In AIAA Journal, vol. 37, no. 6, pp.688-694, 1999.
- J30. J. Overstreet and A. Tzes, [[OT99_ieeecsm](#)] `Internet-based Real-Time Control Engineering Laboratory', In IEEE Control Systems Magazine, vol. 19, no. 5, pp.19-34, May 1999.
- J31. V. Kapila, A. Tzes, and Q. Yan, [[VTY00_asme](#)] `Closed-Loop Input Shaping for Flexible Structures Using Time-Delay Control, In ASME Journal of Dynamic Systems, Measurement, and Control, vol. 122, no. 3, pp.454-460, Sep. 2000.
- J32. G. Nikolakopoulos and A. Tzes, [[NT02_mcs](#)] `Reconfigurable internal model control based on adaptive lattice filtering', In Mathematics in Computer and Simulation, vol. 60, pp. 303-314, 2002.
- J33. A. Panousopoulou, G. Nikolakopoulos, A. Tzes and J. Lygeros, [[PNTL05_mjcn](#)] `Recent Trends on QoS for Wireless Networked Controlled Systems', In Mediterranean Journal of Computers and Networks, vol. 2, no. 1, pp. 77-86, 2005.
- J34. A. Tzes, G. Nikolakopoulos and I. Koutroulis, [[TNK05_ejc](#)] "Development and Experimental Verification of a Mobile Client-Centric Networked Controlled System", In European Journal of Control, vol. 11, No. 3, pp. 229-241, 2005.
- J35. M. Vagia, G. Nikolakopoulos and A. Tzes, [[VNT06_ijrs](#)] `Intelligent Robust Controller Design for a Micro-Actuator', In Journal of Intelligent and Robotic Systems, vol. 47, pp. 299-315, 2006.

- J36. J. Stergiopoulos and A. Tzes, 'Adaptive Input Shaping for Nonlinear Systems: A Case Study' [[ST07_asme](#)], In ASME Journal of Dynamic Systems, Measurement, and Control, vol. 129, pp. 219-223, March 2007.
- J37. K-E. Arzen, A. Bicchi, G. Dini, S. Hailes, K-H. Johansson, J. Lygeros, and A. Tzes, [[ABDHJLT07_ejc](#)] 'A component-based approach to the design of networked control systems', In European Journal of Control, vol. 13, no 2-3, pp. 261-279, 2007 (invited article in ECC'07 – minitutorial session).
- J38. G. Nikolakopoulos, A. Panousopoulou, A. Tzes, and J. Lygeros, [[NPTL07_ajc](#)] 'Multi-Hopping Induced Gain Scheduling for Wireless Networked Controlled Systems', In Asian Journal of Control, vol. 9, no. 4, pp. 450-457, December 2007 (a shorter version appeared in the Proceedings of the 2005 Joint IEEE Conference on Decision and Control – European Control Conference).
- J39. G. Nikolakopoulos, A. Tzes, and Y. Koveos, [[NTK08_ijacsp](#)] 'Application of Adaptive Lattice Filters to Internal Model Control', In Int'l J. of Adaptive Control and Signal Processing, vol. 22, no. 6, pp. 569-589, 2008.
- J40. K. Andrianesis, A. Tzes, E. Kolyvas and Y. Koveos, [[ATKK08_ireme](#)] 'Biomimetic Actuation and Control of an Anthropomorphic Finger', In International Review of Mechanical Engineering, vol. 2, no. 1, January, 2008.
- J41. G. Nikolakopoulos, A. Panousopoulou, and A. Tzes, [[NPT08_cep](#)] 'Experimental Controller Tuning and QoS Optimization of a Wireless Transmission Scheme for Real-Time Remote Control Applications', In Control Engineering Practice, vol. 16, no. 3, pp. 333-346, 2008.
- J42. M. Vagia and A. Tzes, [[VT08_iecta](#)] 'Robust PID-control design for an electrostatic micromechanical actuator with structured uncertainty', In IET- J. of Control Theory & Applications, vol. 2, no. 5, pp. 365-373, May, 2008.
- J43. G. Nikolakopoulos and A. Tzes [[NT08_jcsc](#)] 'AR Lattice l -step ahead output uncertainty prediction scheme with uncertainty intervals', In Journal of Circuits, Systems and Computers, vol. 17, no. 5, pp. 893-904, 2008.
- J44. M. Vagia, G. Nikolakopoulos and A. Tzes, [[VNT08_cep](#)], 'Design of a Robust PID-Control Switching Scheme for an Electrostatic micro-actuator', In Control Engineering Practice, vol. 16, pp. 1321-1328, 2008.
- J45. L. Dritsas and A. Tzes, [[DT09_iecta](#)] 'Robust Stability Bounds for Networked Controlled Systems with Unknown, Bounded and Varying Delays', In IET-J. of Control Theory & Applications, vol. 3, no. 3, pp. 270-280, 2009.
- J46. D. Kandris, P. Tsioumas, A. Tzes, G. Nikolakopoulos, and D. Vergados, [[KTTNV09_sensors](#)], 'Power Conservation through Energy Efficient Routing in Wireless Sensor Networks, In Sensors, vol. 9, pp. 7320-7342, September 2009.
- J47. L. Dritsas and A. Tzes [[DT09_ijc](#)], 'Robust Stability Analysis of Networked Systems with Varying Delays', In International Journal of Control, vol. 82, no. 12, pp. 2347-2355, December 2009.
- J48. M. Vagia and A. Tzes, [[VT09_mns](#)] 'Modeling and Gain Scheduling Design for an Electrostatic Micro-Actuator with Squeezed Film Damping Effects', In Micro and Nanosystems, vol. 1, no. 3, pp. 234-241, November 2009.
- J49. G. Nikolakopoulos and A. Tzes [[NT09_mssp](#)], 'Application of Adaptive Lattice Filters for Modal Parameter Tracking of a Single Flexible Link carrying a Shifting Payload', In Mechanical Systems and Signal Processing, vol. 24, no. 5, pp. 1338-1348, July, 2010.
- J50. Y. Koveos, A. Tzes and D. Tsahalis [[KTT10_ireme](#)], 'Poppet Valve Parameter Optimization of a High Frequency Operating Pump System', In International Review of Mechanical Engineering, vol. 4, no. 1, pp. 71-79, January, 2010.
- J51. J. Stergiopoulos and A. Tzes [[ST10_asme](#)], ' H_∞ Closed-Loop Control for Uncertain Discrete Input-Shaped Systems', In ASME J. Dynamic Systems, Measurement and Control, vol. 132, no. 4, July, 2010.

- J52. G. Nikolakopoulos, D. Kandris, and A. Tzes [[NKT10_sensors](#)], 'Adaptive Compression of Slowly Varying Images Transmitted over Wireless Sensor Networks', vol. 10, pp. 7170-7191, In Sensors, July, 2010
- J53. M. Vagia, Y. Koveos, G. Nikolakopoulos and A. Tzes [[VKNT10_ietcta](#)], 'Robust proportional-integral-derivative controller design for an electrostatic microactuator with measurement uncertainties', In IET-J. of Control Theory & Applications, vol. 4, no. 12, pp. 2793-2801, 2010.
- J54. J. Stergiopoulos and A. Tzes [[ST10_ietcta](#)], 'Convex Voronoi-inspired Space-Partitioning for Heterogeneous Networks: A Coverage-oriented Approach', In IET-J. of Control Theory & Applications, vol. 4, no. 12, pp. 2802-2812, 2010.
- J55. D. Kandris, M. Tsagaropoulos, I. Politis, A. Tzes, and S. Kotsopoulos, [[KTPT11_adhoc](#)], 'Energy efficient and perceived QoS aware video routing over Wireless Multimedia Sensor Networks' In Ad Hoc Networks, vol. 9, no. 4, pp. 591-607, June, 2011.
- J56. V. Reppa and A. Tzes [[RT11_ietcta](#)], 'Fault Detection and Diagnosis based on Parameter Set Estimation', In IET-J. of Control Theory & Applications, vol. 5, no. 1, pp. 69-83, 2011.
- J57. A. Tsoukalas and A. Tzes [[TT11_jirs](#)], 'Modelling and Adaptive Control of Nanowire-Driven Micromanipulators', In Journal of Intelligent and Robotic Systems, vol. 62, no. 3-4, pp. 419-450, 2011.
- J58. K. Alexis, G. Nikolakopoulos, and A. Tzes [[ANT11_ireaco](#)] 'Autonomous Quadrotor Position and Attitude PID/PIDD Control in GPS-denied Environments' In International Review International Review of Automatic Control (Theory and Applications), vol. 4, no. 3, pp. 421-430, May 2011.
- J59. K. Alexis, G. Nikolakopoulos, and A. Tzes [[ANT11_cep](#)], 'Switching Model Predictive Attitude Control for a Quadrotor Helicopter subject to Atmospheric Disturbances', In Control Engineering Practice, vol. 19, no. 10, pp. 1195-1207, June, 2011.
- J60. J. Stergiopoulos and A. Tzes [[ST11_jirs](#)], 'Decentralized Swarm Coordination: A Combined Coverage / Connectivity Approach', In Journal of Intelligent and Robotic Systems, vol. 64, no. 3-4, pp. 603-623, 2011
- J61. L. Dritsas and A. Tzes [[DT12_ijsc](#)], 'Computation of Robust Stability Bounds for Networked Systems with Varying Delays', In International Journal of Systems, Control and Communications, vol. 4, no. 1/2, pp. 20-36, 2012.
- J62. K. Alexis, G. Nikolakopoulos and A. Tzes [[ANT12_ietcta](#)], 'Model Predictive Quadrotor Control: Attitude, Altitude, and Position Experimental Studies', In IET-J. of Control Theory & Applications, vol. 6, no. 12, pp. 1812-1927, 2012
- J63. Y. Stergiopoulos, Y. Kantaros, and A. Tzes [[SKT11_ijdsn](#)], 'Distributed Control of Mobile Sensor Networks under RF Connectivity Constraints', In International Journal of Distributed Sensor Networks, doi:10.1155/2012/741821, Vol. 2012, Article ID 741821, 7 pages, 2012
- J64. G. Nikolakopoulos, P. Stavrou, D. Kandris, A. Tzes, and T. Theoharis [[NSKTK13_adhoc](#)], 'A Dual Scheme for Compression and Restoration of Sequentially Transmitted Images over Wireless Sensor Networks', In Ad Hoc Networks, vol. 11, pp. 410-426, 2013.
- J65. Y. Stergiopoulos and A. Tzes [[ST13_automatica](#)], 'Spatially Distributed Area Coverage Optimization in Mobile Robotic Networks with Arbitrary Convex Anisotropic Patterns', In Automatica, vol. 49, no 1, pp. 232-237, 2013.
- J66. S. Theodoulis, V. Gassmann, P. Wernert, L. Dritsas, I. Kitsios, and A. Tzes [[TGWDKT13_aiaa](#)], 'Guidance and Control Design of a Class of Fin-Controlled Spin-Stabilized Projectiles', In AIAA Journal of Guidance, Control and Dynamics, vol. 36, no. 2, pp. 517-531, 2013.
- J67. M. Vagia and A. Tzes [[VT13_mechatronics](#)], 'Design of a Robust Controller and Modeling aspects of a micro Cantilever Beam with Fringing and Squeezed Gas Film Damping Effects', In Mechatronics, vol. 23, pp. 67-79, 2013.

- J68. Y. Koveos and A. Tzes [[KT13_ieeetctst](#)], 'Resonant Fluid Actuator: Modeling, Identification and Control', In IEEE Transactions on Control Systems Technology, vol. 21, no. 3, pp. 852-860, May 2013.
- J69. K. Alexis, G. Nikolakopoulos and A. Tzes [[ANT14_ajc](#)], 'On Trajectory Tracking Model Predictive Control of an Unmanned Quadrotor Helicopter subject to Aerodynamic Disturbances', In Asian Journal of Control, vol. 16, no. 1, pp. 209-224, 2014.
- J70. D. Tsitsipis, A. Tzes and S. Koubias, [[TTK14_ijdsn](#)], 'TALK: Topology - Aware LKH Key management', In International Journal of Distributed Sensor Networks, Research Article 762194, November, 2014.
- J71. K. Alexis, G. Nikolakopoulos and A. Tzes [[ANT14_IJCAS](#)], 'Experimental Constrained Optimal Attitude Control of a Quadrotor subject to Wind Disturbances', In International Journal of Control, Automation and Systems, vol. 12, no. 6, pp. 1289-1302, December 2014.
- J72. M. Farmakopoulos, M. Thanou, P. Nikolakopoulos, C. Papadopoulos and A. Tzes, 'Linearized PID control in a nonlinear model of an active hydromagnetic journal bearing', In Proc. IMechE Part C: J. Mechanical Engineering Science, DOI: 10.1177/0954406214559591, 2014.
- J73. K. Andrianesis and A. Tzes [[AT15_jirs](#)], 'Development and Control of a Multifunctional Prosthetic Hand with Shape Memory Alloy Actuators', In International Journal of Intelligent and Robotic Systems, vol. 78, no. 2, pp. 257-289, 2015.
- J74. Y. Kantaros, M. Thanou and A. Tzes [[KTT15_atmatica](#)], 'Distributed Coverage Control for Concave Areas by a Heterogeneous Robot-Swarm with Visibility Sensing Constraints', In Automatica, vol. 53, pp. 195-207, March 2015.
- J75. K. Alexis, C. Papachristos, R. Siegwart and A. Tzes [[APST15_jirs](#)], 'Robust Model Predictive Flight Control of Unmanned Rotorcrafts', In Journal of Intelligent and Robotic Systems, DOI 10.1007/s10846-015-0238-7, pp. 1-27, June 2015.
- J76. A. Tsoukalas and A. Tzes [[TT15_jirs](#)], 'Modelling and Control of Hyper-Redundant Micromanipulators for Obstacle Avoidance in an Unstructured Environment', In Journal of Intelligent and Robotic Systems, vol. 78, no. 3, pp. 517-528, June 2015.
- J77. Y. Stergiopoulos, M. Thanou and A. Tzes [[STT15_ieeetac](#)], 'Distributed Collaborative Coverage-Control Schemes for Non-Convex Domains', In IEEE Transactions on Automatic Control, vol. 60, no. 9, pp. 2422-2427, September 2015.
- J78. V. Reppa and A. Tzes [[RT16_ijacsp](#)], 'Fault Diagnosis based on Set Membership Identification using Output-Error Models', In International Journal of Adaptive Control and Signal Processing, vol. 30, no. 2, pp. 224-255, February 2016.
- J79. E. Tzorakoleftherakis, A. Mavromatti, and A. Tzes [[TMT16_asmejmr](#)], 'Design and Implementation of a Binary Redundant Manipulator with Cascaded Modules', In ASME Journal of Mechanisms and Robotics, vol. 8, 011002-1/10, February 2016.
- J80. C. Papachristos, K. Alexis and A. Tzes [[PAT16_jirs](#)], 'Dual-Authority Thrust-Vectoring of a Tri-TiltRotor employing Model Predictive Control', In Journal of Intelligent and Robotic Systems, vol. 81, no. 3, pp. 471-504, March 2016.
- J81. E. Kolyvas, Y. Koveos, and A. Tzes [[KKT16_mechatronics](#)], 'Sliding Mode-based Control of Thin Shape Memory Alloy Actuators using a Spatial Hysteresis Approximation', In Mechatronics, vol. 40, pp. 115-127, November 2016.
- J82. S. Papatheodorou, A. Tzes and Y. Stergiopoulos [[PTS17_robautsys](#)], 'Collaborative Visual Area Coverage', In Journal of Robotics and Autonomous Systems, vol. 92, pp. 126-138, 2017.
- J83. N. Evangeliou and A. Tzes [[ET17_ireaco](#)], 'Design and control of a robotic platform for dexterous minimally invasive surgical applications', In International Review of Automatic Control, vol. 10, no. 5, pp. 443-450, September 2017.
- J84. D. Tsitsipis, A. Tzes, and S. Koubias [[TTK18_ijdsn](#)], 'CHAT: Clustered hierarchical key management for wireless sensor networks using network topology', In International Journal of Distributed Sensor Networks, vol. 13(11), 2017.

- J85. I. Arvanitakis, A. Tzes and K. Giannousakis [ATG18_ijars], 'Synergistic exploration and navigation of mobile robots under pose uncertainty in unknown environments', In International Journal of Advanced Robotic Systems, pp. 1-10, DOI: 10.1177/1729881417750785, January-February 2018.
- J86. E. Kolyvas and A. Tzes [KT18_jimss], 'Model based design of antagonistic SMA-spring devices', In Journal of Intelligent Material Systems and Structures, Article JIM-17-358.R1, March 2018.
- J87. S. Papatheodorou, A. Tzes, K. Giannousakis and Y. Stergiopoulos [PTGS18_ijars], 'Distributed area coverage control with imprecise robot localization: Simulation and experimental studies', In International Journal of Advanced Robotic Systems, pp. 1-15, DOI: 10.1177/1729881418797494, September 2018.
- J88. E. Kontouras, A. Tzes and L. Dritsas [KTD18_mpsce], 'Set-theoretic detection of data corruption attacks on cyber physical power systems', In J. Modern Power Systems and Clean Energy, DOI:10.1007/s40565-018-0452-y, September 2018.
- J89. M. Tzes, S. Papatheodorou and A. Tzes [TPT18_iececs], 'Visual Area Coverage by Heterogeneous Aerial Agents Under Imprecise Localization', In IEEE Control Systems Letters, vol. 2, no. 4, pp. 623-628, October 2018.

CONFERENCE ARTICLES

- 1 S. Yurkovich, U.Ozguner, A. Tzes, and P.Kotnik, [YOTK87_nasatw] `Flexible manipulator control experiments and analysis', In Proceedings of the NASA Telerobotics Workshop, pp.279-288, January 1987.
- 2 A. Tzes and S. Yurkovich, [TY87_icra] `A sensitivity analysis approach to the control of manipulators with unknown load', In Proceedings of the IEEE International Conference on Robotics and Automation, pp.496-502, Raleigh, NC, March 1987.
- 3 A. Tzes, S. Yurkovich, and F.D.Langer, [TYL88_icra] `A symbolic manipulator package for modeling of rigid or flexible manipulators', In Proceedings of the IEEE International Conference on Robotics and Automation, pp.1526-1531, Philadelphia PA, April 1988.
- 4 A. Tzes and S. Yurkovich, [TY88_cdc] `A new approach to frequency domain identification for flexible structure control', In Proceedings of the IEEE Conference on Decision and Control, pp. 1627-1632, Austin TX, December 1988.
- 5 S. Yurkovich, A. Tzes, and F.Pacheco, [YTP89_nasacst] `Experiments in Identification and Control of Flexible-Link Manipulators', In Proceedings of the NASA Conference on Space Telerobotics, Pasadena. CA, February 1989.
- 6 S. Yurkovich, F.Pacheco, and A. Tzes, [YPT89_icra] `On-Line Frequency Domain Information for Control of a Flexible-Link Robot with Varying Payload', In Proceedings of the 1989 International Conference on Robotics and Automation, pp.876-881, Scottsdale AR, May 1989.
- 7 A. Tzes and S. Yurkovich, [TY89_icar] `Application and comparison of on-line identification methods for flexible manipulator control.' In Proceedings of the Fourth International Conference on Advanced Robotics, pp.146-168, Columbus OH, June 1989.
- 8 A. Tzes, M.Englehart, and S. Yurkovich, [TEY89_aiaac] `Input Preshaping with Frequency Domain Information for Flexible Link Manipulators', In Proceedings of the AIAA Guidance, Navigation and Control Conference, pp. 1167-1175, Boston MA, August 1989.
- 9 A. Tzes, S. Yurkovich, and F.D.Langer, [TYL89_ieeecse] `A method for Solution of the Euler-Bernoulli Beam Equation in Flexible-Link Robotic Systems', In IEEE International Conference on Systems Engineering, pp.557-560, Dayton OH, August 1989.
- 10 A. Tzes and S. Yurkovich, [TY89_cdc] `Adaptive Precompensators for Flexible Link Manipulator Control', In Proceedings of the IEEE Conference on Decision and Control, pp.2083-2088, Tampa FL, December 1989.
- 11 S. Yurkovich, A. Tzes and K. Hillsley, [YTH90_acc] `Controlling Coupled Flexible Links Rotating in the Horizontal Plane', In Proceedings of the American Control Conference, pp.362-368, San Diego CA, May 1990.
- 12 S. Yurkovich, A. Tzes, I. Lee, and K. Hillsley, [YTLH90_icra] `Control and System Identification of a Two-Link Flexible Manipulator', In Proceedings of the 1990 International Conference on Robotics and Automation, pp.1626-1631, Cincinnati OH, May 1990.
- 13 A. Tzes and S. Yurkovich, [TY90b_acc] `On Frequency Domain Loop Shaping for Self-Tuning Control', In Proceedings of the American Control Conference, pp.61-67, San Diego CA, May 1990.
- 14 A. Tzes and S. Yurkovich, [TY90a_acc] `Flexible-Link Manipulator Force Control', In Proceedings of the American Control Conference, pp.194-200, San Diego CA, May 1990.
- 15 A. Tzes, [Tzes90_ieeecse] `Intelligent Self-Tuning Controllers for Robot Manipulators', In Proceedings of the IEEE Int'l Conference on Systems Engineering, pp.5-9, Pittsburgh PA, August 1990.
- 16 S. Yurkovich, K.Hillsley, and A. Tzes, [YHT90_cdc] `Identification and Control for a Manipulator with Two Flexible Links', In Proceedings of the IEEE Conference on Decision and Control, pp.1995-2000, Honolulu HA, December 1990.
- 17 S. Yurkovich, K.Hillsley, and A. Tzes, [YHT90_cdc] `Modeling and Control Issues for a Manipulator with Two Flexible Links', In Proceedings of the IEEE Conference on Decision and Control, pp.1995-2000, Honolulu HA, December 1990.
- 18 A. Tzes and S. Yurkovich, [TY90_cdc] `An Application of On-Line Identification Methods for Control', In Proceedings of the IEEE Conference on Decision and Control, pp.3146-3147, Honolulu HA, December 1990.

- 19 F. Khorrami, S.Jain, A. Tzes, W.Grossman, and W.Blessner, [KJTGB91_icar] `Nonlinear Control with Input Preshaping for Flexible Link Manipulators', In Fifth International Conference on Advanced Robotics, pp.96-101, Pisa, Italy, June 1991.
- 20 A. Tzes, and F. Khorrami, [TK91_amas] `Analytical Studies on Adaptive Control of a Flexible Structure', In Proceedings of the Active Materials and Adaptive Structures Conference, pp.485-490, Alexandria VA, November 1991.
- 21 C.Chan and A. Tzes, [CT92_asmerc] `Symbolic Modeling for Direct and Inverse Robot Kinematics', In Proceedings of the Second ASME Region II Technical Conference, pp.64-66, Brooklyn NY, April 1992.
- 22 F. Khorrami, S.Jain, and A. Tzes, [KJT92_acc] `Experiments on Rigid Body Based Controllers with Input Preshaping for a Two-Link Flexible Manipulator', In Proceedings of the American Control Conference, pp.2957-2961, Chicago IL, June 1992.
- 23 A. Tzes, and P-Y.Peng, [TP92_jeercc] `Application of Neural Network Control for DC-Motor Stiction Compensation', In Proceedings of the IEEE Regional Control Conference, pp.114-119, Brooklyn, NY, June 1992.
- 24 K.Kiriakides, and A. Tzes, [KT92_ijcnn] `Adaptive Fuzzy Control for a Second-Order System', In Int'l Joint Conference on Neural Networks, Beijing, China, November 1992.
- 25 K.Kiriakides, and A. Tzes, [KT92_cdc] `Adaptive Fuzzy Dominant-Pole Placement Control', In Proceedings of the IEEE Control and Decision Conference, pp.2516-2522, Tucson AZ, December 1992.
- 26 A. Tzes, and K.Kiriakides, [TK93_jeecfs] `Adaptive Fuzzy Control for Flexible Link Manipulators : A Hybrid Frequency-Time Domain Scheme', In IEEE 2nd Int'l Conference on Fuzzy Systems, pp.122-127, San Fransisco, CA, April 1993.
- 27 H.Lau and A. Tzes, [LT93_asmegstc] `Computer Interfacing and Trajectory Planning for an Autonomous Guided miniature Vehicle', In Proceedings of the Third ASME Graduate Student Technical Conference, pp.52, Brooklyn NY, April 1993.
- 28 A. Tzes and P-Y.Peng, [TP93_med] `Backpropagation Neural Network Control for DC-motor Stiction Compensation', In Proceedings of the IEEE Mediterranean Symposium on New Directions in Control Theory and Applications, June 1993.
- 29 F. Khorrami, S.Jain, and A. Tzes, [KJT93_acc] `Adaptive Nonlinear Control and Input Preshaping for Flexible Manipulators', In Proceedings of the American Control Conference, San Francisco CA, June 1993.
- 30 S.Jain, P-Y.Peng, A. Tzes, and F. Khorrami, [JPTK93_jeerc] `Application of Neural Network Control with Genetic Based Learning for a Single-Link Flexible Manipulator', In IEEE Regional Control Conference, pp.92-97, Newark, NJ, August 1993.
- 31 J. Borowiec, A. Tzes, and F. Khorrami, [BTK93_asmewam] `Adaptive Hybrid Position-Force Control for Flexible Link Manipulators', In Proceedings of ASME Annual Winter Meeting, DSC-vol.49, pp.225-232, New Orleans, LA, December 1993.
- 32 A. Tzes, S.Kim, and W.McShane, [TKM94_justed] `Modeling of An Asynchronous Transportation Network with Petri Networks', In Proceedings of the IASTED Int'l Conference on Modeling and Simulation, pp.84-87, Pittsburgh, PA, May 1994.
- 33 S .Jain, P-Y.Peng, A. Tzes, and F. Khorrami, [SPTK94_acc] `Neural Network Control Designs with Genetic Learning for Control of a Single-Link Flexible Manipulator', In Proceedings of the American Control Conference, pp. 2570-2574, Baltimore, MD, June 1994.
- 34 A. Tzes and J-C.Chen and P-Y.Peng [TCP94_jeecfs] `Supervisory Fuzzy Control Design for a Magnetic Suspension System', In Proceedings of the 3rd IEEE Int'l Conference on Fuzzy Systems, vol.1, pp.138-143, Orlando, FL, June 1994.
- 35 J. Borowiec and A. Tzes, [BT94_asmewam] `Linear Quadratic Regulator Force Control Design for Flexible Link Manipulators', In Proceedings of ASME Annual Winter Meeting, pp.229-236, vol.DSC-55-1, Chicago, IL, November 1994.
- 36 K. Kiriakides and A. Tzes, [KT95_jeecfs] `Application of Implicit Self-Tuning Fuzzy Control to Nonlinear Systems', In Proceedings of the 4th IEEE Int'l Conference on Fuzzy Systems, Yokohama, Japan, vol.3, pp.1419-1426, March 1995.

- 37 J. Borowiec and A. Tzes, [BT95_icra] 'Frequency-Shaped Implicit Force Control of Flexible Link Manipulators', In Proceedings of the IEEE Int'l Conference in Robotics and Automation, Nagoya, Japan, vol.1, pp.913-918, May 1995.
- 38 A. Tzes and K. Le, [TL95_acc] 'Application of Frequency Domain Adaptive IIR Filtering for Identification of Flexible Structure Dynamics', In Proceedings of the American Control Conference, pp.2095-2099, Seattle, WA, June 1995.
- 39 P-Y. Peng and A. Tzes, [PT95_acc] 'Robust Control of Nonlinear Systems Satisfying Strict Matching Conditions with Input Field Uncertainty', In Proceedings of the American Control Conference, pp.3847-3850, Seattle, WA, June 1995.
- 40 K. Kiriakidis and A. Tzes, [KT95_acc] 'Implicit Self-Tuning Fuzzy Control for Nonlinear Systems', In Proceedings of the American Control Conference, pp.3750-3754, Seattle, WA, June 1995.
- 41 J. Borowiec and A. Tzes, [BT95_acc] 'Application of Supervisory Impulse Response Interpolation Scheme for System Identification of Flexible Structures', In Proceedings of the American Control Conference, pp.1423-1427, Seattle, WA, June 1995.
- 42 K. Kiriakidis and A. Tzes, 'Fuzzy Logic Adaptive Sliding Control Design with an Application to Air Handling Systems', In Proceedings of the Third European Congress on Intelligent Techniques and Soft Computing, EUFIT' 95, vol.2, pp.954-959, Aachen, Germany, August 1995.
- 43 A. Tzes, W.R.McShane, and S.Kim, 'Expert Fuzzy Logic Traffic Signal Control for Transportation Networks', In Compendium of Technical Papers of the 65th Annual Meeting of the Institute of Transportation Engineers, pp.154-158, Denver, CO, August 1995 (a shorter version presented at the 1995 ITS-Research New York Conference, Troy, NY, September 1995).
- 44 K.Kiriakidis and A. Tzes, [KT95_cca] 'Design of a Fuzzy Logic Adaptive Sliding Controller and its Application to an Air Flow/Cooling System', In Proceedings of the 4th IEEE Conference on Control Applications, pp.341-346, Albany, NY, September 1995.
- 45 J. Borowiec and A. Tzes, 'Adaptive Sub-Optimal Explicit Force Control of a One Flexible Link Manipulator', In Proceedings of the ASME International Mechanical Engineering Conference & Exposition (IMECE), vol.DSC-57-1, pp.159-166, San Francisco, CA, November 1995.
- 46 K. Kiriakidis, A. Tzes, and A.Grivas, 'Fuzzy Logic Adaptive Control for Regulation of Air Flow', In Proceedings of the ASME International Mechanical Engineering Conference & Exposition (IMECE) (former WAM), vol.DSC-57-1, pp.235-242, San Francisco, CA, November 1995.
- 47 A. Tzes, Q.Hu, and K. Le, [THL95_cdc] 'Development of a Recursive Algorithm for Parameter Uncertainty Interval Estimation', In Proceedings of the 34th Conference on Decision and Control, pp.3010-3015, New Orleans, LA, December 1995.
- 48 K.Kiriakidis and A. Tzes, [KT95_cdc] 'Robust Adaptive Control for Discrete Time Systems via Parameter Bounding', In Proceedings of the 34th Conference on Decision and Control, pp.154-158, New Orleans, LA, December 1995.
- 49 K.Kiriakidis and A. Tzes, 'Robustness of Linear Systems against Nonlinear Time-Varying Perturbations', In Proceedings of the 13th IFAC World Congress, pp.263-268, San Francisco, CA, July 1996.
- 50 A. Tzes and K. Le, 'Adaptive Performance/Robust Control Design for Low-Dimensional Systems', In Proceedings of the 13th IFAC World Congress, pp.243-248, San Francisco, CA, July 1996,
- 51 K.Karagiani, T.Chronopoulos, A. Tzes, N.Koussoulas, and T.Stouraitis, [KCTKS96_med] 'Efficient Implementation of the Generalized Predictive Control Algorithm', In Proceedings of the IEEE Mediterranean Symposium on New Directions in Control Theory and Applications, pp. 534-539, Crete, Greece, June 1996.
- 52 K.Kiriakidis, A.Grivas, and A. Tzes, [KGT96_fuzz] 'A sufficient criterion for stability of the Takagi-Sugeno fuzzy model', In Proceedings of the Fifth IEEE Int'l Conference on Fuzzy Systems (FUZZ-IEEE '96), vol. 1, pp. 277-282, New Orleans, LA, September 1996,
- 53 K.Kiriakidis, A. Tzes, and G.Vradis, 'Active Control of Gaseous Systems: A Fuzzy Logic Approach', In Proceedings of the ASME International Mechanical Engineering Conference & Exposition, pp. 61-67, Atlanta, GA, November 1996.

- 54 A. Tzes and J.Borowiec, 'Applications of Fuzzy Logic and Neural Networks to Identification and Control Problems in Fluid Mechanics', In Proceedings of the ASME International Mechanical Engineering Conference & Exposition, pp.29-34, Atlanta, GA, November 1996.
- 55 A. Tzes and K. Le, [TL96_cdc] 'Adaptive Weighted Minimum Prediction Uncertainty Control', In Proceedings of the 35th Conference on Decision and Control, pp. 1947-1951, Kobe, Japan, December 1996.
- 56 J.Borowiec and A. Tzes, [BT96_cdc] 'Frequency-shaped Explicit Output Feedback Force Control for Flexible Link Manipulators', In Proceedings of the 35th Conference on Decision and Control, pp. 4106-4111, Kobe, Japan, December 1996.
- 57 K.Kiriakidis and A. Tzes, [KT96_cdc] 'Adaptive Robust Control by Set Membership Estimation and Switching: Stability and Performance Analysis', In Proceedings of the 35th Conference on Decision and Control, pp. 3743-3748, Kobe, Japan, December 1996.
- 58 A. Tzes and W.R.McShane 'Development of a Prototype Video-Based Sensor for Vehicle Detection from Stand-Still Images', In Proceedings of the 76th Transportation Research Board Meeting, Article #971082, pp. 202-210, Washington, DC, January 1997.
- 59 K. Le, Z.Huang, C.W.Moon, and A. Tzes, [LZMT97_cdc] 'Adaptive Thresholding - A Robust Fault Detection Approach', In Proceedings of the 36th Conference on Decision and Control, vol. 5, pp. 4490-4495, San Diego, CA, 1997.
- 60 D.Bivolaru, M.Otugen, A. Tzes, and G.Papadopoulos, 'Image Processing for Interferometric Mie and Rayleigh Scattering Velocity Measurements', In Proceedings of the 1998 Aerospace Sciences Conference, January 1998, Reno, NV.
- 61 J. Borowiec and A. Tzes, [BT99_acc] 'Force Control for Flexible Robots using Neural Networks', In Proceedings of the 1999 American Control Conference, pp. 1950-1954, San Diego, CA.
- 62 A. Tzes and K. Le, [TL99_acc] 'Fault Detection for Jump Discrete Systems', In Proceedings of the 1999 American Control Conference, pp. 4496-4500, San Diego, CA.
- 63 T. Chan, A. Tzes and P-K.Wang, [CTW99_acc] 'Experimental Comparative Studies on Neural Network Controllers for DC-Motor Micromanuevering', In Proceedings of the 1999 American Control Conference, pp. 1687-1681, San Diego, CA.
- 64 J. Overstreet and A. Tzes, [OT99_acc] 'Internet-based Client/Server Virtual Instruments for Real-Time Remote-Access Control Engineering Laboratory', In Proceedings of the 1999 American Control Conference, pp. 1472-1476, San Diego, CA.
- 65 J. Overstreet and A. Tzes, 'Applications of Remote Instrumentation Control', National Instruments Hellas Symposium, Athens, Greece, Nov. 1999.
- 66 V. Kapila, A. Tzes, and Q.Yan, [KTY99_cdc] 'Closed-Loop Input Shaping for Flexible Structures using Time-Delay Control', In Proceedings of the 38th IEEE Conference on Decision and Control, Phoenix, AZ, vol. 2, pp. 1561-1566, Dec. 1999.
- 67 G. Nikolakopoulos and A. Tzes, [NT00_ni] 'A Web-based Framework for Adaptive Control of Industrial Processes', National Instruments Hellas Symposium, Athens, Greece, Nov. 2000.
- 68 V. Kapila, M.S.de Queiroz and A. Tzes, [KQT00_acc] 'A multidisciplinary undergraduate real-time experimental control laboratory;In Proceedings of the American Control Conference, vol. 6, pp.3980-3984, June 2000.
- 69 J. Overstreet and A. Tzes, [OT00_med_b] 'Fuzzy Neural Network-based Internal Model Control for DC-Motor Micromanuevering', In Proceedings of the 8th IEEE Mediterranean Conference on Control & Automation, Paper # TC1-4, Patras, Greece, July 2000.
- 70 J. Overstreet and A. Tzes, [OT00_med_a] 'Applications of Fuzzy Neural Networks with Nonlinear Consequences to System Identification', In Proceedings of the 8th IEEE Mediterranean Conference on Control & Automation, Paper # TB2-4, Patras, Greece, July 2000.
- 71 G.Nikolakopoulos, M.Koundourakis, A. Tzes and Y. Koutroulis, [NKTK01_ni] "An integrated system based on the WEB and/or WAP framework for Remote Control of Industrial Processes", In Proceedings of the National Instruments Hellas 2001 Conference, Athens, Greece.

- 72 G.Nikolakopoulos and A. Tzes, [NT01_ifdicon] 'Reconfigurable Adaptive Control based on Lattice Filtering', In Proceedings of the European Workshop on Intelligent Forecasting, Diagnosis and Control, June 24-28, 2001, Santorini, Greece.
- 73 G. Georgoulas, G.Nikolakopoulos, Y.Koutroulis, A. Tzes, and P.Groumpos, [GNKTG02_hcai] 'An Intelligent Visual-based System for Object Inspection and Welding relying on Active Contour Models', In Proceedings of 2nd Hellenic Conference on Artificial Intelligence, Thessaloniki, Greece, pp. 399-409, 2002.
- 74 G. Nikolakopoulos and A. Tzes, [NT02_ifac] 'Adaptive Inverse-Lattice Learning Control', In Proceedings of the 15th IFAC World Congress on Automatic Control, Paper #2624, Barcelona, Spain, July 2002.
- 75 A. Tzes, [Tzes03_acc] 'Robust control design issues for input-shaped discrete systems', In Proceedings of the 2003 American Control Conference, pp. 4785-4787, June 4-6, 2003, Denver, CO, U.S.A.
- 76 G. Nikolakopoulos, M.Koundourakis, A. Tzes and G.Georgoulas [NKTG03_ni], "Use of the Simulation Interface Toolkit for the Simulation and Experimentation of Automatic Control Systems" (in Greek), In Proceedings of National Instruments Hellas 2003 Conference, Athens, Greece.
- 77 G. Nikolakopoulos and A. Tzes, [NT03_med] "Lattice I-step Ahead Output Uncertainty Predictor for Auto-Regressive Systems", Paper # 121, In Proceedings of the 11th Mediterranean Conference on Control and Automation, MED2003, June 17-20, 2003, Rhodes, Greece.
- 78 G. Nikolakopoulos, M.Koundourakis and A. Tzes, [NKT03_vecims] "An Integrated System based on WEB and/or WAP Framework for Remote Monitoring and Control of Industrial Processes", In Proceedings of the IEEE International Symposium on Virtual Environments, Human-Computer Interfaces, and Measurement Systems VECIMS 2003, Paper # 3017, pp. 201-206, July 27-29, 2003, Lugano, Switzerland.
- 79 A.Tzes, G.Nikolakopoulos and I.Koutroulis, [TNK03_ecc] "Development and Experimental Verification of a Mobile Client-Centric Networked Controlled System", Paper #227, In Proceedings of the 2003 European Control Conference, Cambridge, UK, September 1-7, 2003 (this article received the IST-ECC03 prize award)
- 80 K. Benekos, N. Pogkas, G. Kalivas, G. Papadopoulos, and A. Tzes, [BPKPT04_melecon] 'TCP Performance Measurements in IEEE 802.11b-based Wireless LANs', In Proceedings of the 12th Mediterranean Electrotechnical Conferences, MELECON 2004, vol.2, pp. 575-578, May 2004.
- 81 S. Kaloyiannis, A. Tzes, K. Skiadopoulos, [KTS04_icts] 'Pilot Study on the Priority of Emergency Vehicles at Signalized Intersections in the City of Patras', In Proceedings of 1st International Conference on Traffic Signals: Recent Developments, Transport Telematics, (in Greek) Patras, Greece, May 2004.
- 82 G. Mandellos, D. Lymberopoulos, M. Koukias, A. Tzes, N. Lazarou, and C.Vagianos, [MLKTLV04_embs] 'A Novel Mobile Telemedicine System for Ambulance Transport, Design and Evaluation', In Proceedings of the 26th Annual IEEE International Conference in Engineering in Medicine and Biology Society (EMBC 2004), vol. 2, pp.3080-3083, San Francisco, CA, September 1-5, 2004.
- 83 A. Tzes and G. Nikolakopoulos, [TN04_acc] 'LQR-output feedback gain scheduling of mobile networked controlled systems', In Proceedings of the 2004 American Control Conference, Paper #FrA17.6, vol. 5, pp. 4325-4329, June 30-July 2, Boston, MA, USA, 2004
- 84 A. Panousopoulou, G. Nikolakopoulos, and A. Tzes, [PNT04_med] 'Experimental Optimization of a Wireless (802.11b) Transmission Scheme for Real-Time Remote Control Applications', In Proceedings of the 12th Mediterranean Conference on Control and Automation (MED2004), Paper #1204, June 6-9, Kusadasi, Izmir, Turkey, 2004.
- 85 A. Tsoukalas, A. Tzes, and A. Skleros, [TTS04_med] 'Modelling and Adaptive Control of Robotic Micromanipulators in the Presence of Van-der-Waals Forces', In Proceedings of the 12th Mediterranean Conference on Control and Automation (MED2004), Paper # 1157, June 6-9, Kusadasi, Izmir, Turkey, 2004.

- 86 G. Nikolakopoulos and A. Tzes, [NT04_med] 'An Adaptive Reconfigurable Lattice Identification Scheme for IIR Systems', In Proceedings of the 12th Mediterranean Conference on Control and Automation (MED2004), Paper #1199, June 6-9, Kusadasi, Izmir, Turkey, 2004.
- 87 A. Mourikis and A. Tzes, [MT04_med] 'Implementation of Identification Algorithms in Systems with Reduced Computational Resources', In Proceedings of the 12th Mediterranean Conference on Control and Automation (MED2004), Paper # 1165, June 6-9, Kusadasi, Izmir, Turkey, 2004.
- 88 G. Nikolakopoulos, A. Tzes and A. Panousopoulou, [NTP04_ifactds] 'Adaptive Gain Scheduling for Congested Wi-Fi (802.11b) Networked Controlled Systems', In Proceedings of the 5th IFAC on Time-Delayed Systems, September 8-10, 2004, Leuven, Belgium.
- 89 A. Tsoukalas and A. Tzes, [TT04_imece] 'Modelling and Adaptive Control of Tendon-Driven Micromanipulators in the Presence of Van-der-Waals Forces', In Proceedings of the 2004 IMECE International Mechanical Engineering Congress (2004 IMECE), Paper # 2004-59542, pp. 99-106, November, Anaheim, CA, USA, 2004.
- 90 G. Nikolakopoulos, Y. Koveos, and A. Tzes, [NKT04_icit] 'Transfer Function Identification of a Single Flexible Link via Adaptive Lattice Filters', In Proceedings of 2004 IEEE International Conference on Industrial Technology, Paper #1797, vol. 3, pp. 1468-1473, December 8-10, Hammamet, Tunisia, 2004.
- 91 J. Petropoulos, S. Manesis, A. Tzes, and G. Nikolakopoulos, [PMTN04_icit] 'Position and Swing Control of a Pneumatic Pendulum System', In Proceedings of 2004 IEEE International Conference on Industrial Technology, Paper #662, pp. 1307-1312, December 8-10, Hammamet, Tunisia, 2004.
- 92 E. Kolyvas, G. Nikolakopoulos, Y. Koveos, and A. Tzes, [KNKT04_icit] 'Experimental Design, Development and Visual-Servoing of a Shape Memory Alloy Actuated Finger', In Proceedings of 2004 IEEE International Conference on Industrial Technology, Paper #1708, vol. 3, pp. 1448-1452, December 8-10, Hammamet, Tunisia, 2004.
- 93 A. Panousopoulou, G. Nikolakopoulos, A. Tzes, [PNT04_icit] 'Experimental Controller Tuning and QoS Optimization of a Wireless Transmission Scheme for Real-Time Remote Control Applications', In Proceedings of 2004 IEEE International Conference on Industrial Technology, Paper #1719, pp. 801-806, December 8-10, Hammamet, Tunisia, 2004.
- 94 J. Stergiopoulos and A. Tzes, [ST05_med] 'Adaptive Input Shaping for Nonlinear Systems: A Case Study', In Proceedings of the 13th Mediterranean Conference on Control and Automation (2005 ISIC-MED), Paper # 213, pp. 188-193, June 27-30, Limassol, Cyprus, 2005.
- 95 G. Nikolakopoulos, and A. Tzes [NT05_med], '1-step Ahead Optimal Robust Controller for Uncertain Auto-Regressive Systems', In Proceedings of the 13th Mediterranean Conference on Control and Automation (2005 ISIC-MED), Paper # 252, pp. 1476-1480, June 27-30, Limassol, Cyprus, 2005.
- 96 A. Tzes, G. Nikolakopoulos, and L. Dritsas, [TND05_med] 'Design and Sensitivity Analysis of Constrained Finite Time Optimal Controller for a Micro-Actuator', In Proceedings of the 13th Mediterranean Conference on Control and Automation (2005 ISIC-MED), Paper # 191, pp.958-963, June 27-30, Limassol, Cyprus, 2005.
- 97 Y. Stergiopoulos, S. Manesis, A. Tzes and G. Nikolakopoulos, [SMTN05_acc] 'Control via Input Shaping of a Pneumatic Crane System', In Proceedings of the 2005 American Control Conference, pp. 545-550, Portland, OR, USA, June 2005.
- 98 A. Tzes, G. Nikolakopoulos, L. Dritsas and Y. Koveos, [TNDK05_ifac] 'Multi-Parametric H_{∞} Control of a Micro Actuator', In Proceedings of the 16th IFAC World Congress, Paper # 4455, July 4-8, Prague, Czech Republic, 2005.
- 99 G. Rigatos, A. Tzes and S. Tzafestas, [RTT05_imacs] 'Distributed Stochastic Search for multi-Robot Motion Planning', In Proceedings of 17th IMACS World Congress, Paper T5-R-00-0515, July 11-15, Paris, France.
- 100 A. Panousopoulou, G. Nikolakopoulos, and A. Tzes, [PNT05_citsa] 'Recent Trends on QoS for Wireless Networked Controlled Systems', In Proceedings of the 2nd International Conference on Cybernetics and Information Technologies, Systems and Applications (CITSA 2005), Paper I359RH, July 14-17, Orlando, USA, 2005.

- 101 G. Nikolakopoulos, A. Panousopoulou and A. Tzes, [NPT05_etfa] `MANET-Issues and their Effects on Control Applications', In Proceedings of the 10th IEEE Conference on Emerging Technologies and Factory Automation (ETFA 2005), pp. 369-376, September, Catania, Italy, 2005
- 102 E. Kolyvas, Y. Koveos, G. Nikolakopoulos and A. Tzes, [KKNT05_icta] `Modelling and Robust PID-Control of a Shape Memory Alloy Actuated Haptic Finger', In Proceedings of the 5th International Conference on Technology and Automation (IEEE-ICTA'05), pp. 179-184, Thessaloniki, Greece, October 2005,.
- 103 M. Vagia, G. Nikolakopoulos and A. Tzes, [VNT05_icta] `Intelligent Robust-Switching PID Controller Design for a Micro-Actuator', In Proceedings of the 5th International Conference on Technology and Automation (IEEE-ICTA'05), pp. 102-107, Thessaloniki, Greece, October 2005.
- 104 M. Vagia, G. Nikolakopoulos, and A. Tzes, [VNT05_cdc] `Intelligent Robust Controller Design for a Micro-Actuator', In Proceedings of the 44th IEEE Conference on Decision and Control and the European Control Conference 2005, Paper MoB15.6, pp. 1191-1196, Seville, Spain, December 13-15 2005.
- 105 G. Nikolakopoulos, A. Panousopoulou, A. Tzes and J. Lygeros, [NPTL05_cdc] `Multi-hopping Induced Gain Scheduling for Wireless Networked Controlled Systems', In Proceedings of the 44th IEEE Conference on Decision and Control and the European Control Conference 2005, Paper MoA14.3, pp. 470-475, Seville, Spain, December 13-15, 2005.
- 106 V. Reppa and A. Tzes [RT06_icra], `Application of Set Membership Identification for Fault Detection of MEMS', In Proceedings of 2006 IEEE International Conference on Robotics and Automation (ICRA'06), pp. 643-648, May 15-19, 2006, Orlando, FL, U.S.A.
- 107 G. Nikolakopoulos, L. Dritsas, A. Tzes and J. Lygeros [NDTL06_med], `Adaptive Constrained Control of Uncertain ARMA-Systems based on Set-Membership Identification', In Proceedings of the 14th IEEE Mediterranean Conference on Control and Automation (MED'06), Paper# 66, June 28-30, 2006, Ancona, Italy.
- 108 M. Vagia, Y. Koveos, G. Nikolakopoulos and A. Tzes, [VKNT06_med] `Robust PID Control for a Micro-Actuator with Structural Uncertainty', In Proceedings of the 14th IEEE Mediterranean Conference on Control and Automation (MED'06), Paper #90, June 28-30, 2006, Ancona, Italy.
- 109 L. Dritsas, A. Tzes and G. Nikolakopoulos [DTN06_med], `Constrained Finite Time Control of Networked Systems with Uncertain Delays', In Proceedings of the 14th IEEE Mediterranean Conference on Control and Automation (MED'06), Paper #135, June 28-30, 2006, Ancona, Italy.
- 110 Y. Koveos, A. Tzes, E. Kolyvas and D. Tsahalis, [KTKT06_med] `Adaptive Pulse Width/Phase Modulated Controller for a High Frequency Active Electro-Hydraulic Pump System', In Proceedings of the 14th IEEE Mediterranean Conference on Control and Automation (MED'06), Paper #183, June 28-30, 2006, Ancona, Italy.
- 111 Y. Koveos, E. Kolyvas, A. Tzes, and D. Tsahalis [KKTT06_scce] "Finite Element Based Simulation of High Frequency Pulsating Flow in Pump Systems", In Proceedings of the 2nd International Conference "From Scientific Computing to Computational Engineering" (2nd IC-SCCE), July 5-8, 2006, Athens, Greece.
- 112 D. Tsahalis, Y. Koveos, and A. Tzes, [TKT06_scce] "FEM and Parameter Optimization of a Passive Poppet Valve based Electro-Hydraulic Pump System", In Proceedings of the 2nd International Conference "From Scientific Computing to Computational Engineering" (2nd IC-SCCE), July 5-8, 2006, Athens, Greece.
- 113 A. Panousopoulou, G. Nikolakopoulos, A. Tzes and J. Lygeros, [PNTL06_mtns] `Experimental Evaluation of a Mobile Ad-Hoc Networked (MANET) Controlled System', In Proceedings of the 17th International Symposium on Mathematical Theory of Networks and Systems (MTNS'06), Paper FrA09.1-495, pp. 2425-2430, July 24-28, 2006, Kyoto, Japan.
- 114 C. Patsios, C. Eustathiou, E. Tatakis and A. Tzes, [PETT06_icem] `An Integrated Drive Circuit for Travelling Wave Ultrasonic Motor', In Proceedings of 17th International Conference on Electrical Machines (ICEM 2006), Paper 275, September 2-5, 2006, Chania, Greece.

- 115 L. Dritsas, G. Nikolakopoulos, and A. Tzes [DNT06_iecon], 'Constrained Finite Time Optimal Control of a Micro Capacitor', Paper PD-3751, In Proceedings of IEEE Industrial Electronics Conference (IECON'06), pp. 3161-3165, November 7-10, 2006, Paris, France.
- 116 L. Dritsas, G. Nikolakopoulos, and A. Tzes [DNT06_cdc], 'Constrained Optimal Control over Networks with Uncertain Delays', In Proceedings of the 45th IEEE Conference on Decision and Control, Paper FrA11.4/1384, pp. 4993-8, December 13-15, San Diego, 2006, CA, U.S.A.
- 117 Y. Koveos, A. Tzes, and D. Tsahalis, [KTT06_cdc] 'Multi-parametric Optimization of a Pulse Width/Phase Modulated Controller for a High Frequency Active Electro-Hydraulic Pump System', In Proceedings of the 45th IEEE Conference on Decision and Control, Paper FrB03.5/1362, pp. 5335-5340, December 13-15, 2006, San Diego, CA, U.S.A.
- 118 A.Panousopoulou, E. Kolyvas, Y. Koveos, A. Tzes, and J. Lygeros, [PKKTL06_cdc] 'Robot-Assisted Target Localization using a Cooperative Scheme relying on Wireless Sensor Networks', In Proceedings of the 45th IEEE Conference on Decision and Control, Paper FrIP12.2/1543, pp. 1031-1036, December 13-15, 2006, San Diego, CA, U.S.A.
- 119 M. Vagia and A. Tzes [VT07_med] 'Robust PID-control design for an electrostatic micromechanical actuator with structured uncertainty', In Proceedings of the 15th Mediterranean Conference on Control & Automation, Session ThP-5, article T30-003, June 27-29, 2007, Athens, Greece (this article received the best student paper award).
- 120 L. Dritsas, G. Nikolakopoulos and A. Tzes [DNT07_med], 'On the Modeling of Networked Controlled Systems', In Proceedings of the 15th Mediterranean Conference on Control & Automation, Session FrM-1, article T09-004, June 27-29, 2007, Athens, Greece.
- 121 K. Andrianesis, A. Tzes, E. Kolyvas and Y. Koveos [ATKK07_med] 'Development and Control of an Ultra-Lightweight Anthropomorphic Modular Finger Actuated by Shape Memory Alloy Wires', In Proceedings of the 15th Mediterranean Conference on Control & Automation, Poster session article, June 27-29, 2007, Athens, Greece.
- 122 A.Panousopoulou and A. Tzes, [PT07_ecc] 'Utilization of Mobile Agents for Voronoi-Based Heterogeneous Wireless Sensor Reconfiguration' In Proceedings of the 2007 European Control Conference, pp. 4276-4284, (minitutorial session) July 2-5, 2007, Kos, Greece.
- 123 A.Zolotas, A. Tzes, and M. Vagia, [ZTV07_ecc] 'Robust Control Design for an Uncertain Electrostatic Micro-Mechanical System via Loop Shaping', In Proceedings of the 2007 European Control Conference, pp. 389-394, July 2-5, 2007, Kos, Greece.
- 124 L. Dritsas and A. Tzes [DT07_ecc], 'Robust Output Feedback Control of Networked Systems', In Proceedings of the 2007 European Control Conference, pp. 3939-3945, July 2-5, 2007, Kos, Greece.
- 125 A.Anastasiadis, G. Georgoulas, G. Magoulas and A. Tzes, [AGMT07_gecco] 'Adaptive Particle Swarm Optimizer with Nonextensive Schedule', In Proceedings of the 9th Genetic and Evolutionary Computation Conference (GECCO) 2007, Paper 589s1, p. 168, July 7-11, 2007, London, United Kingdom.
- 126 L. Dritsas, G. Nikolakopoulos, and A. Tzes [DNT07_acc], 'Constrained Optimal Control for a Special Class of Networked Systems', In Proceedings of the 2007 American Control Conference, pp. 1009-1014, July 11-13, 2007, New York, NY, U.S.A.
- 127 A.Anastasiadis, G. Magoulas, G. Georgoulas, and A. Tzes, [AMGT07_numan] 'Nonextensive particle swarm optimization methods', In Proceedings of the 2007 Conference in Numerical Analysis (NumAn 2007), Session T5, pp. 15-18, September 3-7, 2007, Kalamata, Greece
- 128 J. Stergiopoulos and A. Tzes, [ST07_etfa] 'An Adaptive Input Shaping Technique for the Suppression of Payload Swing in Three-Dimensional Overhead Cranes with Hoisting Mechanism', In Proceedings of the 12th IEEE Conference on Emerging Technologies and Factory Automation, Session T6.3, pp. 565-568, September 25-28, 2007, Patras, Greece.
- 129 K. Andrianesis, A. Tzes, E. Kolyvas and Y. Koveos, [ATKK07_etfa] 'A Visual-Servoing System for a Humanlike Shape Memory Alloy Actuated Finger', In Proceedings of the 12th IEEE Conference on Emerging Technologies and Factory Automation, Session WIP5, September 25-28, 2007, pp. 1417-1420, Patras, Greece.
- 130 M. Vagia, G. Nikolakopoulos and A. Tzes [VNT07_cca] 'An H_{∞} -Control Scheme for an Electrostatic micro-Actuator with Structured Uncertainty', In Proceedings of the 16th IEEE

- International Conference on Control Applications, article MoA04.5, pp. 130-135, October 1-3, 2007, Singapore.
- 131 V. Reppa and A. Tzes [RT07_cca] 'Synergy between control and electronic simulation models in performance system enhancement', In Proceedings of the 16th IEEE International Conference on Control Applications, article WeB01.1, pp. 1138-1143, October 1-3, 2007, Singapore.
- 132 Y.Koveos, A. Panousopoulou, E. Kolyvas, V. Reppa, K. Koutroumpas, A. Tsoukalas and A. Tzes [KPKRKT07_iros], "An Integrated Power Aware System for Robotic-based Lunar Exploration", In Proceedings of the 2007 IEEE/RSJ International Conference on Intelligent Robots and Systems, Paper TuC6.2, pp. 827-832, Oct. 29-Nov. 2, 2007, San Diego, CA, U.S.A.
- 133 A. Panousopoulou and A. Tzes, [PT08_wiopt] 'On Mobile Agent Positioning for Wireless Network Reconfiguration', In Proceedings of the (WiOpt'08) 6th Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks, pp. 108-115, April, 2008, Berlin, Germany.
- 134 G. Nikolakopoulos, A. Tzes, and I. Kovaivos, [NTK08_med] 'Reconfigurable Internal Model Control based on Adaptive IIR Lattice Filters', In Proceedings of the 16th Mediterranean Conference on Control and Automation, pp. 1314-1319, June, 2008, Corsica, France.
- 135 K. Alexis and A. Tzes, [AT08_med] 'Application of a Quadtree-based Market-Allocation Algorithm for Cellular Environment Coverage with Cooperative Robots' In Proceedings of the 16th Mediterranean Conference on Control and Automation, pp. 938-945, June, 2008, Corsica, France.
- 136 P. Marantos, Y. Koveos, J. Stergiopoulos, A. Panousopoulou and A. Tzes, [MKPT08_med] 'Mobile robot odometry relying on data fusion from RF and ultrasound measurements in a wireless sensor framework' In Proceedings of the 16th Mediterranean Conference on Control and Automation, pp. 523-528, June, 2008, Corsica, France.
- 137 D. Kandris, P. Tsioumas, A. Tzes, N. Pantazis and D. Vergados, [KTTPV08_med] 'Hierarchical Energy Efficient routing in Wireless Sensor Networks', In Proceedings of the 16th Mediterranean Conference on Control and Automation, pp. 1856-1861, June, 2008, Corsica, France.
- 138 M. Vagia and A. Tzes, [VT08_med] 'Modeling and analysis of the squeezed film damping effect on electrostatic microactuators' In Proceedings of the 16th Mediterranean Conference on Control and Automation, pp. 469-474, June, 2008, Corsica, France.
- 139 V. Reppa and A. Tzes, [RT08_ifac] 'Fault Detection based on Orthotopic Set Membership Identification for Robot Manipulators' In Proceedings of the 17th IFAC World Congress, vol. 17, no. 1, pp. 7344-7349, July, 2008, Seoul, Korea.
- 140 L. Dritsas and A. Tzes, [DT08_ifac_b] 'Constrained Control of Event-Driven Networked Systems', In Proceedings of the 17th IFAC World Congress, vol. 17, no. 1, pp. 11600-11605, July, 2008, Seoul, Korea.
- 141 L. Dritsas and A. Tzes, [DT08_ifac_a] 'Modeling Approaches and Robust Stability Conditions for Networked Controlled Systems with Uncertain Delays', In Proceedings of the 17th IFAC World Congress, vol. 17, no. 1, pp. 6353-6358, July, 2008, Seoul, Korea.
- 142 M. Vagia and A. Tzes, [VT08_ifac] 'Robust PID Controller Design for a micro-Actuator with Squeezed Gas Film Damping Effects, In Proceedings of the 17th IFAC World Congress, pp. 5423-5428, July, 2008, Seoul, Korea.
- 143 K. Andrianesis and A. Tzes, [AT08_biorob] 'Design of an Anthropomorphic Prosthetic Hand Driven by Shape Memory Alloy Actuators', In Proceedings of 2nd IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics, pp. 517-522, October, 2008, Scottsdale, Arizona, U.S.A.
- 144 J. Stergiopoulos and A. Tzes, [ST09b_acc] 'Voronoi-based Coverage Optimization for Mobile Networks with Limited Sensing Range - A Directional Search Approach, In Proceedings of the 2009 American Control Conference, pp. 2642-2647, June, 2009, St. Louis, MO, U.S.A.
- 145 M. Vagia and A. Tzes, [VT09_acc], 'Modeling aspects and Gain scheduled H_{∞} Controller Design for an Electrostatic micro-Actuator with Squeezed Gas Film Damping Effects', In

- Proceedings of the 2009 American Control Conference, pp. 4805-4810, June, 2009, St. Louis, MO, U.S.A.
- 146 J. Stergiopoulos and A. Tzes, [ST09a_acc] 'H_infty Closed-Loop Control for Unstable Uncertain Discrete Input-Shaped Systems', In Proceedings of the 2009 American Control Conference, (invited article), pp. 172-177, June, 2009, St. Louis, MO, U.S.A.
- 147 J. Stergiopoulos, G. Konstantopoulos and A. Tzes, [SKT09_med], 'Experimental Verification of an Adaptive Input Shaping Scheme for Hoisting Cranes', In Proceedings of the 17th IEEE Mediterranean Conference on Control and Automation, pp. 730-735, June, 2009, Thessaloniki, Greece.
- 148 D. Kandris, M. Tsagkaropoulos, I. Politis, A. Tzes, and S. Kotsopoulos, [KTPTK09_med], 'A Hybrid Scheme for Video Transmission Over Wireless Multimedia Sensor Networks', In Proceedings of the 17th IEEE Mediterranean Conference on Control and Automation, pp. 964-969, June, 2009, Thessaloniki, Greece.
- 149 N. Karamolegkos, G. Stathopoulos and A. Tzes, [KST09_med], 'Adaptive Minimum Uncertainty Control for a Flexible Link Manipulator', In Proceedings of the 17th IEEE Mediterranean Conference on Control and Automation, pp. 1319-1324, June, 2009, Thessaloniki, Greece.
- 150 L. Dritsas and A. Tzes, [DT09_med], 'Robust Stability Bounds for Networked Systems with Varying Delays', In Proceedings of the 17th IEEE Mediterranean Conference on Control and Automation, June, 2009, pp. 778-783, Thessaloniki, Greece.
- 151 Y. Koveos and A. Tzes, [KT09_msc] 'Modeling and Identification of a Resonance Fluid Actuator', In Proceedings of 2009 IEEE Multi-conference on Systems and Control, July, 2009, pp. 560-565, St. Petersburg, Russia.
- 152 V. Reppa and A. Tzes, [RT09_safeprocess], 'Fault Detection relying on Set-Membership Techniques for an Atomic Force Microscope, In Proceedings of the 7th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes (SafeProcess 2009), (invited article), pp. 1186-1191, June 30 - July 3, 2009, Barcelona, Spain.
- 153 M. Vagia and A. Tzes [VT09_ecc], Robust H_inf Controller-Design for an Electrostatic micro-Actuator with Squeezed Gas Film Damping Effects, In Proceedings of the 2009 European Control Conference, pp. 2881-2886, August, 2009, Budapest, Hungary.
- 154 L. Dritsas, A. Tzes, and G. Nikolakopoulos [DTN09_ecc], 'Robust Stability Analysis of Networked Systems with Varying Delays', In Proceedings of the 2009 European Control Conference, pp. 952-956, August, 2009, Budapest, Hungary.
- 155 J. Stergiopoulos and A. Tzes, [ST09_ecc], 'Convex Voronoi Space-Partitioning for Coverage Purposes in Heterogeneous Sensor Networks', In Proceedings of the 2009 European Control Conference, pp. 2361-2366, August, 2009, Budapest, Hungary.
- 156 G. Nikolakopoulos, P. Stavrou, N. Fanakis, A. Tzes, and T. Theoharis, [NSFTT09_icons] 'An Application of the Inpainting Algorithm for Recovering Packet Losses from Transmitting Sequential Quad Tree Compressed Images Over Wireless Sensor Networks', In Proceedings of the 2nd IFAC International Conference on Intelligent Control Systems and Signal Processing (ICONS 2009), vol. 2, no.1, pp.514-519, , Istanbul, Turkey, 2009.
- 157 Y. Koveos and A. Tzes, [KT09_iecon] 'Adaptive optimal valve control for a resonance fluid actuator', In Proceedings of the 35th Annual IEEE Conference of IEEE on Industrial Electronics, (IECON 2009), pp. 1438-1443, November, 2009, Porto, Portugal.
- 158 L. Dritsas, V. Tsoukas, A. Pantelous and A. Tzes, [DTPT10_isms] 'Robust Performance Issues in Tracking Control over Networks', In Proceedings of the First International Conference on Intelligent Systems, Modeling and Simulation (ISMS2010), pp. 264-269, January 27-29, 2010, Liverpool, England
- 159 K. Alexis, G. Nikolakopoulos and A. Tzes [ANT10_icra], 'Design and Experimental Verification of a Constrained Finite Time Optimal Control Scheme for the Attitude Control of a Quadrotor Helicopter Subject to Wind Gusts', In Proceedings of 2010 IEEE International Conference on Robotics and Automation, pp. 1636-1641, May 3-8, 2010, Anchorage, Alaska, USA.
- 160 K. Alexis, G. Nikolakopoulos and A. Tzes, [ANT10_melecon] 'Constrained-Control of a Quadrotor Helicopter for Trajectory Tracking Under Wind-Gust Disturbances', In Proceedings

- of the 15th Mediterranean Electrotechnical Conference, MELECON 2010, pp. 1411-1416, April 25-28, 2010, Valetta, Malta.
- 161 M. Vagia and A. Tzes, [VT10_med], 'LMI-region Pole Placement Control Scheme for an Electrostatically Actuated micro Cantilever Beam' In Proceedings of the 18th IEEE Mediterranean Conference on Control and Automation, pp. 231-236, June 23-25, 2010, Marrakech, Morocco.
- 162 L. Dritsas and A. Tzes, [DT10_med], 'Robust Guaranteed-Cost Controllers for Networked Systems with Varying Delays' In Proceedings of the 18th IEEE Mediterranean Conference on Control and Automation, pp. 292-297, June 23-25, 2010, Marrakech, Morocco.
- 163 V. Reppa and A. Tzes, [RT10_med], 'Fault Detection and Diagnosis based on Parameter Set Estimation for Measurements corrupted by Bounded Noise' In Proceedings of the 18th IEEE Mediterranean Conference on Control and Automation, pp. 460-465, June 23-25, 2010, Marrakech, Morocco.
- 164 V. Reppa, M. Vagia and A. Tzes, [RVT10_med], 'Fault Detection and Diagnosis enhanced by a Reconfiguration Control Scheme for a Micro-Electrostatic Actuator' In Proceedings of the 18th IEEE Mediterranean Conference on Control and Automation, pp. 477-482, June 23-25, 2010, Marrakech, Morocco.
- 165 G. Nikolakopoulos, K. Alexis, I. Arvanitakis and A. Tzes, [NAA10_med], 'A Collaborative Unmanned Helicopter Control Strategy for Image Compression and Wireless Transmission' In Proceedings of the 18th IEEE Mediterranean Conference on Control and Automation, pp. 1206-1211, June 23-25, 2010, Marrakech, Morocco.
- 166 S. Theodoulis, Y. Morel, P. Wernert and A. Tzes, [TMWT10_med], 'LPV Modeling of Guided Projectiles for Terminal Guidance' In Proceedings of the 18th IEEE Mediterranean Conference on Control and Automation, pp. 1455-1460, June 23-25, 2010, Marrakech, Morocco.
- 167 K. Alexis, G. Nikolakopoulos, and A. Tzes, [ANT10_med], 'Experimental Model Predictive Attitude Tracking Control of a Quadrotor Helicopter subject to Wind-Gusts' In Proceedings of the 18th IEEE Mediterranean Conference on Control and Automation, pp. 1461-1466, June 23-25, 2010, Marrakech, Morocco.
- 168 J. Stergiopoulos and A. Tzes [ST10_acc], 'Decentralized Communication Range Adjustment Issues in Multi-Agent Mobile Networks', In Proceedings of the 2010 American Control Conference, pp. 1629-1634, June 30 – July 2, 2010, Baltimore, USA.
- 169 M. Vagia and A. Tzes [VT10a_acc], 'A Literature Review on Modeling and Control Design for Electrostatic Microactuators with Fringing and Squeezed Film Damping Effects', In Proceedings of the 2010 American Control Conference, (lead tutorial article), pp. 3390-3402, June 30 – July 2, 2010, Baltimore, USA.
- 170 M. Vagia and A. Tzes [VT10b_acc], 'An integrated gain scheduled control design for an Electrostatic micro-Actuator with aerodynamic effects', In Proceedings of the 2010 American Control Conference, pp. 4175-4180, June 30 – July 2, 2010, Baltimore, USA.
- 171 K. Alexis, G. Nikolakopoulos, and A. Tzes [ANT10_acc], 'Constrained Optimal Attitude Control of a Quadrotor Helicopter subject to Wind-Gusts: Experimental Studies', In Proceedings of the 2010 American Control Conference, pp. 4451-4455, June 30 – July 2, 2010, Baltimore, USA.
- 172 K. Alexis, G. Nikolakopoulos and A. Tzes, [ANT10_isie] "Model Predictive Attitude Control of an Unmanned Quadrotor Helicopter subject to atmospheric disturbances", in Proceedings of the IEEE International Symposium on Industrial Electronics (ISIE'10), 4-7 July, 2010, Bari, Italy.
- 173 A. Panousopoulou and A. Tzes [PT10_necsys], 'RF-Power Overlapping Control for Connectivity Awareness in Wireless Ad-Hoc and Sensor Networks' In Proceedings of the 2nd IFAC Workshop on Distributed Estimation and Control in Networked Systems (NECSYS'10), pp. 275-280, September 13-14, 2010, Anney, France.
- 174 D. Kandris, D.J. Vergados, D.D. Vergados and A. Tzes, [KVVT10_case], 'A Routing Scheme for Congestion Avoidance in Wireless Sensor Networks', In Proceedings of the 6th IEEE Conference on Automation Science and Engineering (CASE 2010), pp. 497-502, August 21-24, 2010, Toronto, Canada.

- 175 K. Alexis, G. Nikolakopoulos, and A. Tzes [ANT10_iav], 'Model Predictive Attitude–Altitude Control for a Miniature Coaxial Helicopter', In Proceedings of the 7th IFAC Symposium on Intelligent Autonomous Vehicles, article #16094, September 6-8, 2010, Lecce, Italy.
- 176 G. Siamantas, K. Gatsis and A. Tzes [SGT10_aiai], 'Mobile Robot-Assisted Cellular Environment Coverage' In Proceedings of the 6th IFIP International Conference on Artificial Intelligence Applications and Innovations (AIAI 2010), vol. 339, article 59, pp. 254-261, October 6-7, 2010, Larnaca, Cyprus.
- 177 V. Reppa and A. Tzes [RT10_systol], 'Fault Detection and Diagnosis relying on Set Membership Identification for Time Varying Systems' In Proceedings of the 2010 Conference on Control and Fault Tolerant Systems (SysTol), pp. 702-707, October 6-8, 2010, Nice, France.
- 178 Y. Stergiopoulos and A. Tzes, [ST11_med], 'Coverage-Oriented Coordination of Mobile Heterogeneous Networks', In Proceedings of the 19th Mediterranean Conference on Control and Automation, pp. 175-180, June 20-23, 2011, Corfu, Greece
- 179 S. Theodoulis, I. Kitsios, L. Dritsas, A. Tzes, and P. Wernert, [TKDWT11_med], 'Autopilot Strategies of Guided Projectiles for Terminal Guidance', In Proceedings of the 19th Mediterranean Conference on Control and Automation, pp. 248-253, June 20-23, 2011, Corfu, Greece
- 180 G. Siamantas, T. Stouraitis, and A. Tzes, [STT11_med], 'Intelligent Particle-Filter Based Robot Localization', In Proceedings of the 19th Mediterranean Conference on Control and Automation, pp. 333-338, June 20-23, 2011, Corfu, Greece
- 181 M. Vagia and A. Tzes, [VT11_med], 'An Iterative Scheme for LMI-Based Robust Pole Assignment with Control Input Saturation Constraints for Uncertain LTI Systems', In Proceedings of the 19th Mediterranean Conference on Control and Automation, pp. 730-735, June 20-23, 2011, Corfu, Greece
- 182 P. Giataganas, N. Evangelidou, Y. Koveos, E. Kelasidi, and A. Tzes, [GEKTT11_med], 'Design and Experimental Evaluation of an Innovative SMA-Based Tendon-Driven Redundant Endoscopic Robotic Surgical Tool', In Proceedings of the 19th Mediterranean Conference on Control and Automation, pp. 1071-1075, June 20-23, 2011, Corfu, Greece
- 183 D. Tsitsipis, G. Nikolakopoulos, A. Tzes, and S. Koubias, [TNTK11_med] 'A Dual Scheme for Secured Multimedia Wireless Sensor Network', In Proceedings of the 19th Mediterranean Conference on Control and Automation, pp. 1160-1165, June 20-23, 2011, Corfu, Greece
- 184 K. Alexis, C. Papachristos, G. Nikolakopoulos and A. Tzes, [APNT11_med], 'Model Predictive Quadrotor Indoor Position Control', In Proceedings of the 19th Mediterranean Conference on Control and Automation, pp. 1247-1252, June 20-23, 2011, Corfu, Greece
- 185 C. Papachristos, K. Alexis, and A. Tzes, [PAT11_icar] "Design and Experimental Attitude Control of a Unmanned Tilt-Rotor Aerial Vehicle", 15th International Conference on Advanced Robotics, June 20-23, 2011, Talin, Estonia
- 186 C. Papachristos, K. Alexis, G. Nikolakopoulos and A. Tzes, [PANT11_isie] 'Model Predictive Attitude Control of an Unmanned Tilt–Rotor Aircraft', In Proceedings of the 20th IEEE International Symposium on Industrial Electronics ISIE 2011, pp. 922-927, June 27-30, 2011, Gdansk, Poland.
- 187 K. Alexis, G. Nikolakopoulos and A. Tzes, [ANT11_isie] 'Model Predictive Control Scheme for the Autonomous Flight of an Unmanned Quadrotor', In Proceedings of the 20th IEEE International Symposium on Industrial Electronics ISIE 2011, pp. 2243-2248, June 27-30, 2011, Gdansk, Poland.
- 188 K. Alexis, G. Nikolakopoulos, Y. Koveos and A. Tzes [ANKT11_ifac] 'Switching Model Predictive Control for a Quadrotor Helicopter under Severe Environmental Flight Conditions', In Proceedings of the 18th World Congress of the International Federation of Automatic Control, pp. 11913-11918, August 28 – September 2, 2011, Milan, Italy.
- 189 J. Arvanitakis, G. Nikolakopoulos, D. Zermas and A. Tzes [ANZT11_etfa], 'On the adaptive performance improvement of a trajectory tracking controller for non-holonomic mobile robots', In 16th IEEE Conference on Emerging Technologies & Factory Automation, pp. 1-7, September 5-9, 2011, Toulouse, France

- 190 E. Theodoridis, E. Galanopoulos, P. Papadeas, K. Efstathiou, E. Tatakis and A. Tzes, [TGPE12_ess], 'Design and Optimization of the Communication, Power and Attitude Determination and Control Modules of the UPSat', In Proceedings of the 4th European CubeSat Symposium, January 30-February 2, 2012, Brussels, Belgium.
- 191 Y. Stergiopoulos, Y. Kantaros and A. Tzes, [SKT12_icit], 'Connectivity-aware Coordination of Robotic Networks for Area Coverage Optimization', In Proceedings of the 2012 IEEE International Conference on Industrial Technology, pp. 36-40, March 19-21, Athens, Greece.
- 192 C. Papachristos and A. Tzes, [PT12_icit], 'Modeling and Control Simulation of an Unmanned Tilt Tri-Rotor Aerial Vehicle', In Proceedings of the 2012 IEEE International Conference on Industrial Technology, pp. 851-856, March 19-21, 2012, Athens, Greece.
- 193 K. Alexis and A. Tzes, [AT12_icra], 'Revisited Dos Samara Unmanned Aerial Vehicle: Design and Control', In Proceedings of the 2012 IEEE International Conference on Robotics and Automation, May 14-18, 2012, Saint Paul, Minnesota, USA.
- 194 Y. Stergiopoulos and A. Tzes, [ST12_jasted], 'Coordination of Mobile Networks with Arbitrary Convex Sensing Patterns', In Proceedings of the 14th IASTED International Conference on Control and Applications, pp. 256-262, June 18-20, 2012, Crete, Greece.
- 195 A. Panousopoulou, R. Sterritt and A. Tzes [PST12_acc], 'Localised Transmission Power Adjustment for Relative Connectivity Awareness in Wireless Ad-hoc & Sensor Networks', In Proceedings of the 2012 American Control Conference, pp. 460-465, June 27-29, 2012, Montreal, Canada.
- 196 I. Arvanitakis and A. Tzes, [AT12_med], 'Trajectory Optimization Satisfying the Robot's Kinodynamic Constraints for Obstacle Avoidance', In Proceedings of the 20th Mediterranean Conference on Control and Automation, pp. 128-133, July 3-6, 2012, Barcelona, Spain.
- 197 A. Mavrommati, E. Tzoracoleftherakis and A. Tzes, [MTT12_med] 'Design and development of a hyper-redundant binary active laparoscopic manipulator', In Proceedings of the 20th Mediterranean Conference on Control and Automation, pp. 327-332, July 3-6, 2012, Barcelona, Spain.
- 198 E. Kelasidi and A. Tzes, [KT12_med] 'Serpentine Motion Control of Snake Robots for Curvature and Heading Based Trajectory - Parameterization', In Proceedings of the 20th Mediterranean Conference on Control and Automation, pp 536-541, July 3-6, 2012, Barcelona, Spain.
- 199 C. Papachristos, K. Alexis and A. Tzes, [PAT12_med] 'Towards a High-End Unmanned Tri-TiltRotor: Design, Modeling and Hover Control', In Proceedings of the 20th Mediterranean Conference on Control and Automation, pp. 1579-1584, July 3-6, 2012, Barcelona, Spain.
- 200 Y. Stergiopoulos and A. Tzes, [ST12_med] 'Autonomous Deployment of Heterogeneous Mobile Agents with Arbitrarily Anisotropic Sensing Patterns', In Proceedings of the 20th Mediterranean Conference on Control and Automation, pp. 1585-1590, July 3-6, 2012, Barcelona, Spain.
- 201 M. Thanou, Y. Stergiopoulos and A. Tzes [TST13_icra], 'Distributed Coverage using Geodesic Metric for Non-Convex Environments' In Proceedings of the 2013 IEEE International Conference on Robotics and Automation, pp. 925-930, May 6-10, 2013, Karlsruhe, Germany.
- 202 C. Papachristos, K. Alexis and A. Tzes [PAT13_icra], 'Model Predictive Hovering-Translation Control of an Unmanned Tri-Tilt Rotor' In Proceedings of the 2013 IEEE International Conference on Robotics and Automation, pp. 5405-5412, May 6-10, 2013, Karlsruhe, Germany.
- 203 C. Papachristos, K. Alexis and A. Tzes, [PAT13_codit], 'Linear Quadratic Optimal Position Control for an Unmanned Tri-TiltRotor', In Proceedings of the 2013 International Conference on Decision and Information Technologies (CoDIT 2013), pp. 708-713, May 6-8, 2013, Hammamet, Tunisia.
- 204 C. Papachristos, and A. Tzes [PT13_med], 'Large Object Pushing with a Longitudinal Thrust Vectoring-Enabled Unmanned Tri-TiltRotor', In Proceedings the 21st Mediterranean Conference on Control and Automation, pp. 173-178, June 25-28, 2013, Chania, Greece.
- 205 C. Papachristos, K. Alexis and A. Tzes [PAT13_med], 'Trajectory Control of an Unmanned Tri-TiltRotor in Hover Flight via Direct Longitudinal Actuation', In Proceedings the 21st

- Mediterranean Conference on Control and Automation, pp. 369-374, June 25-28, 2013, Chania, Greece.
- 206 K. Andrianesis and A. Tzes [AT13_med], 'An Innovative Bionic Hand with Compact Shape Memory Alloy Actuators', In Proceedings the 21st Mediterranean Conference on Control and Automation, pp. 697-702, June 25-28, 2013, Chania, Greece.
- 207 C. Sapsanis, G. Georgoulas and A. Tzes [SGT13_med], 'EMG based classification of basic hand movements based on time-frequency features', In Proceedings of the 21st Mediterranean Conference on Control and Automation, pp. 716-722, June 25-28, 2013, Chania, Greece.
- 208 M. Thanou, Y. Stergiopoulos and A. Tzes [TST13_med], 'Distributed Coverage of Mobile Heterogeneous Networks in Non-Convex Environments', In Proceedings of the 21st Mediterranean Conference on Control and Automation, pp. 956-962, June 25-28, 2013, Chania, Greece.
- 209 M. Farmakopoulos, M. Thanou, P. Nikolakopoulos, C. Papadopoulos and A. Tzes [FTNPT13_iceaf], 'A Control Model of Active Magnetic Bearings', In Proceedings of 3rd International Conference of Engineering Against Failure (ICEAF III), June 26-28, 2013, Kos, Greece
- 210 E. Kountouras and A. Tzes [KT13_cps], 'Adversary Control Strategy for CyberPhysical Networked Systems' In Proceedings of the 2013 BALCON-HYCON2 Workshop, July 2-3, 2013, (<http://www.hycon2.eu/?page=14&id=47&PHPSESSID=ae8bb0475c0940103f3b848838eb251>), Belgrade, Serbia.
- 211 C. Papachristos and A. Tzes [PT13_rss], UAVs Overcoming Physical Limitations: The Tri-TiltRotor in Obstacle Manipulation, In Proceedings of the 2013 RSS Workshop on Aerial Mobile Manipulation, June 27, 2013, <http://mysite.du.edu/~rvoyles/RSS2013AMM.html>, Berlin, Germany.
- 212 C. Sapsanis, G. Georgoulas, A. Tzes, and D. Lymberopoulos [SGTL13_embc], 'Improving EMG based Classification of basic hand movements using EMD', In Proceedings of the 35th Annual International IEEE EMBS Conference, pp. 5754-6757, July 3-7, 2013, Osaka, Japan.
- 213 C. Papachristos, K. Alexis and A. Tzes, [PAT13_ecc], 'Hybrid Model Predictive Flight Mode Conversion Control of Unmanned Quad-TiltRotors' In Proceedings of the 2013 European Control Conference, pp. 1793-1798, July 17-19, 2013, Zurich, Switzerland.
- 214 I. Arvanitakis, A. Tzes and M. Thanou, [ATT13_iecon], 'Geodesic motion planning on 3D-terrains satisfying the robot's kinodynamic constraints', In Proceedings of the 39th Annual Conference of the IEEE Industrial Electronics Society (IECON 2013), pp. 4144-4149, November 11-13, 2013, Vienna, Austria.
- 215 C. Papachristos, K. Alexis and A. Tzes, [PAT13_iecon], 'Linear Quadratic Optimal Trajectory-Tracking Control of a Longitudinal Thrust Vectoring-Enabled Unmanned Tri-TiltRotor', In Proceedings of the 39th Annual Conference of the IEEE Industrial Electronics Society (IECON 2013), pp. 4174-4179, November 11-13, 2013, Vienna, Austria.
- 216 M. Thanou and A. Tzes [TT14_iscscsp], 'Distributed visibility-based coverage using a swarm of UAVs in known 3D-terrains', In Proceedings of the 6th International Symposium on Communications, Control and Signal Processing (ISCCSP 2014), pp. 458-461, May 21-23, 2014, Athens, Greece.
- 217 Y. Kantaros, M. Thanou and A. Tzes, [KTT14_icra], 'Visibility-oriented Coverage Control of Mobile Robotic Networks on Non-convex Regions', In Proceedings of 2014 IEEE International Conference on Robotics and Automation, pp. 1126-1131, May 31 - June 7, 2014, Hong Kong, China.
- 218 C. Papachristos, K. Alexis and A. Tzes, [PAT14_icra], 'Efficient Force Exertion for Aerial Robotic Manipulation: Exploiting the Thrust-Vectoring Authority of a Tri-TiltRotor UAV', In Proceedings of 2014 IEEE International Conference on Robotics and Automation, pp. 4500-4505, May 31 - June 7, 2014, Hong Kong, China.
- 219 Y. Stergiopoulos and A. Tzes, [ST14_icra], 'Cooperative Positioning/Orientation Control of Mobile Heterogeneous Anisotropic Sensor Networks for Area Coverage', In Proceedings of 2014 IEEE International Conference on Robotics and Automation, pp. 1106-1111, May 31 - June 7, 2014, Hong Kong, China.

- 220 C. Papachristos and A. Tzes [PT14_med], 'The Power-Tethered UAV-UGV Team: A Collaborative Strategy for Navigation in Partially-Mapped Environments', In Proceedings of the 22nd Mediterranean Conference on Control and Automation, pp. 1153-1158, June 16-19, 2014, Palermo, Italy.
- 221 E. Kolyvas, A. Tzes and Y. Koveos [KKT14_med], 'On the interaction of temperature sensing – Shape Memory Alloy dynamics and control design for a bending actuator', In Proceedings of the 22nd Mediterranean Conference on Control and Automation, pp. 906-912, June 16-19, 2014, Palermo, Italy.
- 222 K. Alexis, C. Papachristos, R. Siegwart and A. Tzes, [APST14_ecc], 'Robust Explicit Predictive Flight Control of Unmanned Rotorcrafts: Design and Experimental Evaluation', In Proceedings of 2014 European Control Conference, pp. 498-503, June 25-27, 2014, Strasbourg, France.
- 223 E. Kontouras, A. Tzes, and L. Dritsas, [KTD14_ecc], 'Adversary Control Strategies for Discrete-Time Systems', In Proceedings of 2014 European Control Conference, pp. 2508-2513, June 25-27, 2014, Strasbourg, France.
- 224 C. Papachristos, K. Alexis and A. Tzes, [PAT14_ifac], 'Technical Activities Execution with a TiltRotor UAS employing Explicit Model Predictive Control', In Proceedings of 2014 IFAC's World Congress, pp. 11036-11042, August 24-29, 2014, Cape Town, South Africa.
- 225 K. Alexis, C. Papachristos, R. Siegwart and A. Tzes [APST15_med], 'Sampling-based Receding Horizon Collision-free Control For a Class of Micro Aerial Vehicles', In Proceedings of the 23rd Mediterranean Conference on Control and Automation, pp. 709-714, June 16-19, 2015, Torremolinos, Spain.
- 226 L. Zikou, C. Papachristos and A. Tzes [ZPT15_med], 'The Power-over-Tether system for powering small UAVs: Tethering-Line Tension Control Synthesis', In Proceedings of the 23rd Mediterranean Conference on Control and Automation, pp. 715-721, June 16-19, 2015, Torremolinos, Spain.
- 227 E. Kontouras, A. Tzes, and L. Dritsas, [KTD15_ecc], 'Covert Attack on a Discrete-Time System with Limited Use of the Available Disruption Resources', In Proceedings of 2015 European Control Conference, pp. 806-811, July 15-17, 2015, Linz, Austria.
- 228 C. Papachristos, D. Tzoumanikas and A. Tzes [PTT15_iros], 'Aerial Robotic Tracking of a Generalized Mobile Target Employing, Visual and Spatio-Temporal Dynamic Subject Perception' In Proceedings of the 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems, pp. 4319-4324, September 28-October 2, 2015, Hamburg, Germany.
- 229 K. Alexis, C. Papachristos, R. Siegwart and A. Tzes, 'Uniform Coverage Structural Inspection Path-Planning for Micro Aerial Vehicles', In Proceedings of the Multiconference on Systems and Control, pp. 59-64, September 21-13, 2015, Sydney, Australia.
- 230 C. Papachristos, D. Tzoumanikas, K. Alexis, and A. Tzes, [PTAT15_isvc] 'Autonomous Robotic Aerial Tracking, Avoidance, and Seeking of a Mobile Human Subject', In Proceedings of the 11th International Symposium on Visual Computing (ISVC 2015), pp. 444-454, December 14-16, 2015, Las Vegas, NV, USA.
- 231 L. Zikou, C. Papachristos, K. Alexis and A. Tzes, [ZPAT15_isvc] 'Inspection Operations Using an Aerial Robot Powered-over-Tether by a Ground Vehicle', In Proceedings of the 11th International Symposium on Visual Computing (ISVC 2015), pp. 455-465, December 14-16, 2015, Las Vegas, NV, USA.
- 232 N. Evangeliou and A. Tzes [ET16_elektro], 'A human-in-the-loop controlled shape memory alloy actuated robotic probe for minimally invasive surgical procedures', In Proceedings of the 11th International Conference ELEKTRO 2016, pp. 504-508, May 16-18, 2016, High Tatras, Slovakia.
- 233 C. Papachristos, K. Alexis, L. Carrillo, and A. Tzes, [PACT16_icuas], 'Distributed Infrastructure Inspection Path Planning for Aerial Robotics subject to Time Constraints', In Proceedings of The 2016 International Conference on Unmanned Aircraft Systems (ICUAS'16), pp. 406-412, June 7-10, 2016, Arlington, VA, USA.
- 234 S. Papatheodorou, Y. Stergiopoulos, and A. Tzes [PST16_med], 'Distributed Area Coverage Control with Inherent Collision Avoidance', In Proceedings of the 24th Mediterranean Conference on Control and Automation, pp. 214-219, June 21-24, 2016, Athens, Greece.

- 235 Y. Stergiopoulos, E. Kontouras, K. Gkoutas, K. Giannousakis, and A. Tzes [SKGGT16_med], 'Modeling and Control Aspects of a UAV with an Attached Manipulator', In Proceedings of the 24th Mediterranean Conference on Control and Automation, pp. 653-658, June 21-24, 2016, Athens, Greece.
- 236 N. Evangelidou, D. Karageorgos, and A. Tzes [EKT16_med], 'Design and Variable Stiffness Actuation of a Tendon-Driven Minimally Invasive Surgical Robotic Tool', In Proceedings of the 24th Mediterranean Conference on Control and Automation, pp. 725-730, June 21-24, 2016, Athens, Greece.
- 237 O. Varesis, C. Diamantopoulos, and A. Tzes [ODT16_med], 'Experimental Studies of Serpentine Motion Control of Snake Robots at Inclined Planes', In Proceedings of the 24th Mediterranean Conference on Control and Automation, pp. 737-742, June 21-24, 2016, Athens, Greece.
- 238 N. Evangelidou and A. Tzes [ET16_biorob] 'Development of an SMA-actuated Redundant Robotic Platform for Minimally Invasive Surgery; In Proceedings of the 6th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechanics (BioRob), pp. 353-358, June 26-29, 2016, UTown, Singapore.
- 239 E. Kontouras, A. Tzes and L. Dritsas, [KTD16_ecc] 'Adversarial Control Scheme for an Islanded Power Plant', In Proceedings of 2016 European Control Conference, pp. 307-312, June 29- July 1, 2016, Aalborg, Denmark.
- 240 I. Arvanitakis, K. Giannousakis, and A. Tzes [AGT16_msc], 'Mobile Robot Navigation in Unknown Environment based on Exploration Principles', In Proceedings of 2016 IEEE Multi-Conference on Systems and Control, pp. 493-498, September 19-22, 2016, Buenos Aires, Argentina
- 241 C. Bartzis, K. Zarkadis, K. Zaoskoufis, A. Tzes and E. C. Tatakis [BZZTT16_msc], 'Experimental studies on a fuzzy-logic control scheme for an ultrasonic motor' In Proceedings of 2016 IEEE Multi-Conference on Systems and Control, pp. 1123-1128, September 19-22, 2016, Buenos Aires, Argentina
- 242 E. Kontouras, A. Tzes and L. Dritsas [KTD17_acc], 'Cyber-Attack on a Power Plant using Bias Injected Measurements', In Proceedings of the 2017 American Control Conference, pp. 5507-5512, May 24-26, 2017, Seattle, WA, USA
- 243 L. Dritsas, E. Kontouras and A. Tzes [DKT17_med], 'Load Frequency Control for Demand Disturbance Attenuation and Transient Response Improvement for a Single-Area Power Plant', In Proceedings of the 25th Mediterranean Conference on Control and Automation, pp. 502-507, July 3-6, 2017, Valletta, Malta.
- 244 S. Papatheodorou, A. Tzes, and K. Giannousakis [PTG17_med], 'Experimental Studies on Distributed Control for Area Coverage using Mobile Robots', In Proceedings of the 25th Mediterranean Conference on Control and Automation, pp. 690-695, July 3-6, 2017, Valletta, Malta.
- 245 I. Arvanitakis and A. Tzes [AT17_med], 'Collaborative mapping and navigation for a mobile robot swarm', In Proceedings of the 25th Mediterranean Conference on Control and Automation, pp. 696-700, July 3-6, 2017, Valletta, Malta.
- 246 O. Tsilomitrou, A. Tzes, and S. Manesis [TTM17_med], 'Mobile Robot Trajectory Planning for Large Volume Data-Muling from Wireless Sensor Nodes', In Proceedings of the 25th Mediterranean Conference on Control and Automation, pp. 1005-1010, July 3-6, 2017, Valletta, Malta.
- 247 K. Gkoutas, G. Ntekoumes and A. Tzes [GNT17_med], 'Dynamics and Control of an Unmanned Aerial System employing a Delta-manipulator', In Proceedings of the 25th Mediterranean Conference on Control and Automation, pp. 1207-1212, July 3-6, 2017, Valletta, Malta.
- 248 G. Sarantoglou, G. Kritikou, N. Aspragathos, and A. Tzes [SKAT17_med], 'Algorithm for Parallel Microparts Manipulation with Electrostatic Fields', In Proceedings of the 25th Mediterranean Conference on Control and Automation, pp. 1410-1415, July 3-6, 2017, Valletta, Malta.

- 249 E. Kontouras, A. Tzes and L. Dritsas [KTD17_ifac], 'Impact Analysis of a Bias Injection Cyber-Attack on a Power Plant', In Proceedings of the 20th IFAC World Congress, pp. 11586-11591, July 9-14, 2017, Toulouse, France.
- 250 I. Arvanitakis, A. Tzes and K. Giannousakis [ATG17_ifac], 'Mobile Robot Navigation Under Pose Uncertainty in Unknown Environments', In Proceedings of the 20th IFAC World Congress, pp. 13249-13253, July 9-14, 2017, Toulouse, France.
- 251 N. Evangeliou, E. Dimitrakakis and A. Tzes [EDT17_ccta], 'Design and Experimental Evaluation of a Tendon-Driven Minimally Invasive Surgical Robotic Tool with Antagonistic Control', In Proceedings of the 2017 IEEE Conference on Control technology and Applications, pp. 463-467, August 27-20, 2017, Kohala Coast, HI, USA.
- 252 S. Papatheodorou and A. Tzes [PT17_cdc], 'Cooperative Visual Convex Area Coverage Using a Tessellation-Free Strategy' In Proceedings of the 56th IEEE Conference on Decision and Control, pp. 4662-4667, December 12-15, 2017, Melbourne, Australia.
- 253 O. Tsilomitrou, N. Evangeliou and A. Tzes [TET18_codit], 'Mobile Robot Tour Scheduling Acting As Data Mule in a Wireless Sensor Network', In Proceedings of 2018 5th International Conference on Control, Decision and Information Technologies (CoDIT), April 10-13, 2018, Thessaloniki, Greece (in print).
- 254 S. Papatheodorou, M. Smyrnakis, T. Hamidou, and A. Tzes [PSHT18_codit], 'Path Planning and Task Assignment for Data Retrieval from Wireless Sensor Nodes Relying on Game-Theoretic Learning, In Proceedings of 2018 5th International Conference on Control, Decision and Information Technologies (CoDIT), April 10-13, 2018, Thessaloniki, Greece (in print).
- 255 N. Evangeliou and A. Tzes [ET18_icra], 'A hybrid actuated robotic prototype for minimally invasive surgery', In Proceedings of the 2018 IEEE International Conference on Robotics and Automation (ICRA), pp. 1386-1391, May 21-25, 2018, Brisbane, Australia.
- 256 E. Kontrouras, A. Tzes and L. Dritsas [KTD18_ecc], 'Set-Induced Anomaly Detectors for Networked Power Systems under Bias Injection Cyber-Attacks', In Proceedings of the 2018 European Control Conference, pp. 2472-2475, June 12-15, Limassol, Cyprus.
- 257 M. Tzes, S. Papatheodorou and A. Tzes [TPT18_med], 'Collaborative Visual Area Coverage by Aerial Agents under Positioning Uncertainty', In Proceedings of the 26th Mediterranean Conference on Control and Automation, pp. 149-154, June 19-22, 2018, Zadar, Croatia.
- 258 A. Tsoukalas, A. Tzes and F. Khorrami [TTK18_med], 'Relative Pose Estimation of Unmanned Aerial Systems', In Proceedings of the 26th Mediterranean Conference on Control and Automation, pp. 155-160, June 19-22, 2018, Zadar, Croatia.
- 259 N. Evangeliou, P. Tsampiras and A. Tzes [ETT18_med], 'Development of a Tendon-Driven Robotic Tool Targeting Visual-Servoing Minimally-Invasive Surgical Operations', In Proceedings of the 26th Mediterranean Conference on Control and Automation, pp. 383-387, June 19-22, 2018, Zadar, Croatia.
- 260 K. Giannousakis and A. Tzes [GT18_med], 'Mobile Robot Trajectory Generation from Ordered Point-Set Using Time-Optimal Bezier Segments', In Proceedings of the 26th Mediterranean Conference on Control and Automation, pp. 388-393, June 19-22, 2018, Zadar, Croatia.
- 261 L. Dritsas, E. Kontrouras, I. Kitsios and A. Tzes [DKKT18_med], 'Aggressive Control Design for Electric Power Generation Plants', In Proceedings of the 26th Mediterranean Conference on Control and Automation, pp. 667-672, June 19-22, 2018, Zadar, Croatia.
- 262 S. Papatheodorou and A. Tzes [PT18_iceaf], 'Fault tolerant area coverage control for multiagent systems', In Proceedings of MATEC Web of Conferences, ICEAF-V 2018, vol. 188, 05010, DOI: 10.1051/mateconf/201818805010, June 20-22, 2018, Chios, Greece.
- 263 E. Kontrouras, A. Tzes and L. Dritsas [KTD18_acc], 'Set-Theoretic Detection of Bias Injection Cyber-Attacks on Networked Power Systems', In Proceedings of the 2018 American Control Conference, pp. 165-170, June 27-29, Milwaukee, WI, USA.
- 264 S. Papatheodorou, M. Smyrnakis, T. Hamidou and A. Tzes [PSHT18_setn], 'Game theoretic optimal position computation of collaborating agents for visual area coverage', In Proceedings of SETN 2018 10th Hellenic Conference on Artificial Intelligence, July 9-12, 2018, Patras, Greece, . ACM, New York, NY, USA, 7 pages. <https://doi.org/10.1145/3200947.3201015>
- 265 M. Tzes, S. Papatheodorou and A. Tzes [TPT18_cdc], 'Visual Area Coverage by Heterogeneous Aerial Agents Under Imprecise Localization', In Proceedings of 57th IEEE

BOOK CHAPTERS/BOOKS/EDITORSHIPS/LABORATORY MANUALS

1. A. Tzes, 'Instrumentation and Control Laboratory Manual', In Polytechnic University's ME324 Class Notes, rev. 1.1, (124 pages), January 1995.
2. G. Nikolakopoulos and A. Tzes, "Control Systems Laboratory Manual" (in Greek), U. of Patras (Publishing House), 2002.
3. Manufacturing, Modeling, Management and Control, Proceedings of the IFAC Symposium, Rio, Greece, July 12-14, 2000, Edited by P.P. Groumpos and A.P. Tzes, ISBN: 0-08-043554-8, 2001.
4. G. Nikolakopoulos, A. Panousopoulou, and A. Tzes [[NPT08 springer](#)] "Switched Feedback Control for Wireless Networked Systems" Chapter in "Networked Control Systems: Theory and Applications", pp. 153-196, Springer-Verlag, edited by F-Y.Wang and D.Liu, ISBN: 978-1-84800-214-2, 2008.
5. K. Alexis, G. Nikolakopoulos, A. Tzes and L. Dritsas, [[ANTD09 springer](#)] "Coordination of Helicopter UAVs for Aerial Forest-Fire Surveillance", Chapter in "[Applications of Intelligent Control to Engineering Systems](#)", vol. 39, part II, pp. 169-193, Springer-Verlag, edited by K. Valavanis, ISBN: 978-90-481-3017-7.
6. K. Andrianesis, Y. Koveos, G. Nikolakopoulos, and A. Tzes, [[AKNT10 sciyo](#)] "Experimental Study of a Shape Memory Alloy Actuation System for a Novel Prosthetic Hand," in *Shape Memory Alloys*, Corneliu Cismasiu (Ed.), ISBN: 978-953-307-106-0, Sciyo, Aug. 2010, pp. 81-106. [Online]. Available from: <http://www.intechopen.com/articles/show/title/experimental-study-of-a-shape-memory-alloy-actuation-system-for-a-novel-prosthetic-hand>
7. M. Vagia and A. Tzes (2012). Robust LMI-Based PID Controller Architecture for a Micro Cantilever Beam, PID Controller Design Approaches - Theory, Tuning and Application to Frontier Areas, Dr. Marialena Vagia (Ed.), ISBN: 978-953-51-0405-6, InTech, Available from: <http://www.intechopen.com/books/pid-controller-design-approaches-theory-tuning-and-application-to-frontier-areas/robust-lmi-based-pid-controller-architecture-for-a-micro-cantilever-beam>
8. S. Papatheodorou and A. Tzes (2018) "Theoretical and Experimental Collaborative Area Coverage Schemes Using Mobile Agents" Dr. Efren Gorrostieta Hurtado (Ed.), ISBN 978-953-51-6702-0, Intech.

REPORTS

1. A. Tzes, and W.McShane, 'Energy Efficient Traffic Control Through Wide Area Detection and Fuzzy Logic', In Final Report - Vol. A-D, New York State Energy Research and Development Authority, February 1996.
2. A. Tzes et al, 'Traffic Congestion Forecasting Model for the INFORM System', In Final Report - Vol.1, Department of Advanced Technology, Brookhaven National Laboratory, November 1994.
3. A. Tzes, 'Neural Network Computer for Real Time Control', In Final Report, National Science Foundation, May 1993.
4. G. Nikolakopoulos, and A. Tzes, 'Adaptive Control Suite: An Integrated Framework for Remote Experimentation (Report)', 2000.

IN THE NEWS

['Keyhole surgery needs to be faster and less expensive – and for that we need better tools'](#), In Spectator, March 16, 2018

['Robots could help make heart surgery minimally invasive'](#), In Gulf News, March 24, 2018

[`Autonomous drones will fly into danger zones for emergency services`](#), In ComputerWeekly, April 10, 2018

PATENTS

1. A. Tzes and V. Tsotras, `An Adaptive System and Method For Predicting Response Times In A Service Environment', United States Patent #5,444,820, August 22, 1995.

THESES/DISSERTATIONS

1. A. Tzes, `Self-Tuning Controllers for Flexible Link Manipulators', Ph.D. Dissertation, The Ohio State University, 1990.
2. A. Tzes, `Application of Self Tuning Controllers to Rigid or Flexible Manipulator Systems', M.Sc. Thesis, The Ohio State University, 1987.
3. A. Tzes, `Real Time Control of Robot Manipulators', B.Sc.E.E. Thesis, University of Patras, Control Laboratory, Greece, June 1985.
4. A. Tzes, `Design and Implementation of a Digital Telephonic Center', B.Sc.E.E. Thesis, University of Patras, Applied Electronics Laboratory, Greece, June 1985.

ACADEMIC ADVISING

GRADUATE THESIS (supervised)

Ph.D. Dissertations (& Current Affiliations of Doctoral Students)

1. Seongho Kim [Professor, Transportation & Logistics Engineering Department, Hanyang University, Korea, seongho@hanyang.ac.kr], Applications of Petri Networks & Fuzzy Logic to Advanced Traffic Management Systems, Ph.D. Dissertation, August 1993.
2. Pei-Yuan Peng [GM/VP at LG Electronics China R&D Center, pengpy@yahoo.com], Fuzzy Neural Network Control Designs for Micromaneuvering of Flexible Link Robotic Systems, Ph.D. Dissertation, May 1996.
3. Kiriakos Kiriakidis [Professor and Department Head at the Weapons and Systems Department, United States Naval Academy, Annapolis, MD, U.S.A., kiriakid@usna.edu], Analysis and Design of Control Systems Associated with Fuzzy Logic, Ph.D. Dissertation, May 1996.
4. Ke Le [Director of Intellectual Property at Teradyne, MA, U.S.A., klhust@gmail.com], Adaptive Robust Control Design for Discrete Linear Systems, Ph.D. Dissertation, December 1996.
5. Joseph Borowiec [Industry Professor, Department of Mechanical and Aerospace Engineering, NYU Polytechnic School of Engineering, NY, U.S.A., borowiec@nyu.edu], Force Control Designs for Flexible Link Manipulators, Ph.D. Dissertation, June 1997.
6. George Nikolakopoulos, [Professor, Computer Science, Electrical and Space Engineering, Lulea University of Technology, Sweden, george.nikolakopoulos@ltu.se], Adaptive Control of Varying Systems, Ph.D. Dissertation, January 2006.
7. Marialena Vagia, [Research Scientist, SINTEF ICT -Applied Cybernetics, Trondheim, Norway, marialena.vagia@sintef.no] Robust Control of Electrostatic micro Actuators, Ph.D. Dissertation, January 2009.
8. Leonidas Dritsas, [Lecturer at the Department of Electrical & Electronic Engineering Educators ASPETE, Greece, dritsas@aspete.gr], Robust Control of Networked Systems, Ph.D. Dissertation, February 2009.
9. Athanasia Panousopoulou, [Post-Doctoral Researcher, Foundation of Research and Technology - Hellas (FO.R.T.H), Greece, apanouso@ics.forth.gr] Control and Optimization of the Operation of Wireless Networked Systems with Emphasis on the Quality of Service, Ph.D. Dissertation, October 2009.
10. Vasso Reppa, [Post-doctoral Researcher, Marie Curie Fellow, Automatic Control Department, Supelec, France, vasiliki.reppa@supelec.fr] Fault Detection and Diagnosis: Application to Micro Electro Mechanical Systems, Ph.D. Dissertation, July 2010
11. Dionisis Kandris, [Associate Professor in the Department of Electronic Engineering at the Technological Educational Institute (TEI) of Athens, Greece, dkandris@teiath.gr], Development of Algorithms for the Supervisory Control of Wirelessly Connected Systems, Ph.D. Dissertation, July 2010.
12. Yannis Koveos, [Post-Doctoral Researcher, Information Technologies Institute, CERTH, Greece, ykoveos@upatras.gr], Modeling and Control of Fluidic-Systems using Smart Materials, Ph.D. Dissertation, April 2011.
13. Kostas Alexis, [Assistant Professor, Computer Science and Engineering Department, University of Nevada, Reno, USA, kalexis@unr.edu] Control of Cooperative Unmanned Aerial Vehicles, Ph.D. Dissertation, July 2011.
14. Athanasios Tsoukalas, [Research Engineer, Electrical and Computer Engineering, New York University Abu Dhabi, Abu Dhabi, United Arab Emirates athanasio.tsoukalas@nyu.edu] Modeling and Control of Micro/Nano Robotic Systems, Ph.D. Dissertation, September 2012.
15. Konstantinos Andrianesis, [kandrianesis@ece.upatras.gr], Design, Implementation and control of a biomimetic actuated anthropomorphic hand, Ph.D. Dissertation, May 2014.

16. Yannis Stergiopoulos, [Post-Doctoral Researcher, Department of Electrical & Computer Engineering, University of Patras, Greece, stergiopoulos@ece.upatras.gr], Cooperative Control of Networked Robotic Systems, Ph.D. Dissertation, September 2014.
17. Christos Papachristos, [Post-Doctoral Researcher, University of Nevada, Reno, USA, cpapachristos@unr.edu], Design, Control and Autonomous Navigation of Tilt-Rotor Unmanned Aerial Vehicles, Ph.D. Dissertation, September 2015.
18. Ioannis Arvanitakis, [Adjunct Lecturer, University of Coventry, UK, ac7632@coventry.ac.uk], Navigation and collaborative mapping of a team of mobile robots, Ph.D. Dissertation, June 2017.
19. Nikolaos Evangeliou, [Adjunct Lecturer, Biomedical Engineering Program, University of Patras, nikolaos.evangeliou@nyu.edu], Development and Control of Robotic Platform for Minimal Invasive Surgery, Ph.D. Dissertation, June 2017.
20. Efthymios Kolyvas, [Researcher, Glafcos Marine, eiklvs@gmail.com], Applications and Control of Smart Memory Alloys acting as actuators”, Ph.D. Dissertation, January 2018

M.Sc. Thesis

1. P-Y.Peng, `Neural Networks and Linear Quadratic Control Studies on a DC-motor system', August 1992.
2. K.Kiriakides, `Adaptive Fuzzy Tuning in Control Systems Design', December 1992.
3. K. Le, `Adaptive Robust Control Designs for Infinite Impulse Response Flexible Structure Systems', December 1994.
4. Q.Hu, `Adaptive Robust l1 Control Design for Discrete Systems', December 1994.
5. J.Guthy, `Control Design for an Autonomous Vehicle/Robot', December 1996.

M.Sc. Projects

1. R-K.Chang, `Experiments on Solar Cell Modeling', August 1993.
2. J-C.Chen, `Neural Network Control Design for the Maglev Vehicle', December 1993.
3. C-T.Chen, `Fuzzy Neural Networks for a Class of Bilinear Thermal/Mass Transfer Mechanical Systems', May 1994.
4. C-C.Houng, `Experimental Studies on Neural Network Control Design for DC-Motor Micropositioning', August 1994.
5. F-T.Hu, `Fuzzy Neural Network Control for DC-motor micromaneuvering', May 1995.
6. A.Grivas, `Temperature Control of a Prototype Fluid/Thermal System via Sliding Mode Fuzzy Logic', November 1996.