

Petros Ioannou CV

Petros A. Ioannou received the B.Sc. degree with First Class Honors from University College, London, England, in 1978 and the M.S. and Ph.D. degrees from the University of Illinois, Urbana, Illinois, in 1980 and 1982, respectively. During the period 1975-1978, he held a Commonwealth Scholarship from the Association of Commonwealth Universities, London, England. He was awarded several prizes, including the Goldsmid Prize and the A. P. Head Prize from University College, London. From 1979 to 1982 he was a research assistant at the Coordinated Science Laboratory at the University of Illinois.

In 1982, Dr. Ioannou joined the Department of Electrical Engineering-Systems, University of Southern California, Los Angeles, California. He is currently a Professor in the same Department and the Director of the Center of Advanced Transportation Technologies. He also holds a courtesy appointment with the Department of Aerospace and Mechanical Engineering. He is the Associate Director for Research for the University Transportation Center METRANS at the University of Southern California since 2006. His research interests are in the areas of adaptive control, neural networks, nonlinear systems, vehicle dynamics and control, intelligent transportation systems and marine transportation. He was visiting Professor at the University of Newcastle, Australia and the Australian National University in Canberra during parts of Fall of 1988, the Technical University of Crete in summer of 1992 and Fall of 2001 and served as the Dean of the School of Pure and Applied Science at the University of Cyprus in 1995. As the Dean, member of the Senate and member of some vital for the University of Cyprus committees he pioneered the establishment of the School of Engineering at the University of Cyprus. In 2008/2009 he was a faculty member at the Department of Electrical Engineering and Information Technologies of the Cyprus University of Technology while on sabbatical leave from the University of Southern California. Dr. Ioannou was the recipient of the Outstanding Transactions Paper Award by the IEEE Control System Society in 1984 and the recipient of a 1985 Presidential Young Investigator Award for his research in Adaptive Control. In 2009 he received the *IEEE ITSS Outstanding ITS Application Award* for his work on Adaptive Cruise Control Systems. He also received the *2009 IET Heaviside Medal for Achievement in Control* by the Institution of Engineering and Technology (former IEE). In 2012 he received the *IEEE ITSS Outstanding ITS Research Award*. He has been an Associate Editor for the IEEE Transactions on Automatic Control, the International Journal of Control, Automatica and IEEE Transactions on Intelligent Transportation Systems. He served as a Member of the Control System society on IEEE ITS Council Committee and his center on advanced transportation technologies was a founding member of IVHS America which was later renamed ITS America. He also served as Associate Editor at Large of the IEEE Transactions on Automatic Control and Chairman of the IFAC Technical Committee on Transportation Systems. He is a member of the Board of Governors of the IEEE Intelligent Transportation Society. He is one of the founders of the Mediterranean Control Association and a member of the Board of Governors. He was one of the founders of the IEEE Mediterranean Control Conference which has been taking place annually since 1992 and one of the founders of the University Transportation Center, METRANS, at the University of Southern California and California State University Long Beach.

Dr. Ioannou is a *Fellow of IEEE*, *Fellow of International Federation of Automatic Control (IFAC)*, *Fellow of the Institution of Engineering and Technology (IET)*, and the author/co-author of 8 books and over 200 research papers in the area of controls, vehicle dynamics, neural networks, nonlinear dynamical systems and intelligent transportation systems.

PETROS A. IOANNOU, Ph.D.

BACKGROUND/EXPERIENCE

Educational Record

1. University of Illinois, College of Engineering, Urbana, Illinois. 1/80 - 8/82, Ph.D. in Electrical Engineering, Thesis title: "Robustness of Adaptive Schemes with Respect to Modeling Errors."
2. University of Illinois, College of Engineering, Urbana, Illinois. 8/78 - 12/79 M.S. Thesis title: "Microprocessor Control of Double Magnet Suspension System."
3. University of London, University College, London. 9/75 - 6/78, B.Sc. in Mechanical Engineering, June 1978. Thesis title: "Calibration of the Water Wave Tank."

Work Experience/Accomplishments

- University of Southern California, Department of Electrical Engineering-Systems: Assistant Professor from Fall 1982 to Spring 1987. Associate Professor from Spring 1987 to 1992. Full Professor from Fall 1992 to present
- Joint Appointment with the Department of Aerospace and Mechanical Engineering, 2004-present
- Joint Appointment with the Department of Industrial and Systems Engineering, 2011-present
- Adjunct Professor University of Cyprus, Sept. 2010 to present
- Founder of the Southern California Center of Advanced Transportation Technologies, 1991
- Director of the Southern California Center of Advanced Transportation Technologies, 1991 to present.
- Associate Director for Research, METRANS 2006-present
- Visiting Professor Cyprus University of Technology, 2008/2009
- Visiting Professor, Technical University of Crete, Chania, Greece, Summer 1992, Fall 2001
- Visiting Professor at the University of Newcastle, Australia, Fall 1988
- Visiting Professor at the Australian National University in Canberra Fall of 1988,
- Dean of the School of Pure and Applied Science at the University of Cyprus in 1995/1996 where he pioneered the establishment of the School of Engineering at the University of Cyprus

- One of the founders of the Mediterranean Control Association, 1998
- One of the founders of the IEEE Mediterranean Conferences which started in 1992 and became an annual event
- One of the founders of the University Transportation Center METRANS at the University of Southern California/California State University Long Beach, 1999
- Controls Group Leader 2004-2008
- Faculty Advisor and Director of the Masters Program in Financial Engineering 2008-present

Consulting

- ACORN Technologies, Technical Consultant, 1999 to 2002
- Lockheed Company Technical Consultant, 1985 to 1993.
- Ford Motor Company Design and implementation of an intelligent cruise control system on a Lincoln Towncar, June 1992 to 1994.
- Project Trilby, General Motors Research Laboratories: A successful design and implementation of a steer-by-wire control system, July 1988.
- Rockwell International, 12214 Lakewood Boulevard, Downey, CA 90241: Technical Consultant, 1985.
- HR TEXTRON, Systems Engineering Division, Irvine, CA 92714: Technical Consultant, May and June 1985.
- Dynamic Systems, 2014 Silver Court West, Urbana, Illinois: Technical Consultant from October 1980 to September 1984.
- General Electric Company, One River Road, Schenectady, NY 12435: Technical Consultant, 15 days, July - December 1981.
- Ford Motor Company, P. O. Box 2053, Dearborn, MI 48121: Technical Consultant, 2 days in November 1980, 7 days in November 1981.

Professional Activities

- Organizer and National Organizing Committee Chair 12th IFAC Symposium on Transportation Systems, September 2-4, 2009
- Organizer and General Chair of the 2008 International Trade and Freight Transportation Conference, September 1-3, 2008, Ayia Napa, Cyprus
- Technical Program Chair of the 2007 IEEE Intelligent Vehicles Symposium, June 13-15, 2007, Istanbul, Turkey
- Organizer and Program Chair of the International Conference on Intelligent Systems And Computing: Theory And Applications (ISYC), July 6-7, 2006, Ayia Napa, Cyprus
- Technical Program Chair of the 2nd Annual National Urban Freight Conference, Dec. 5-7, 2007
- Associate Editor for the 2008 IFAC Congress, July 2008, Korea
- Chair of the IEEE Fellow committee of the IEEE Intelligent Transportation Society 2006-2008
- Associate Editor at Large of the IEEE Transactions on Automatic Control, 1999 to 2010
- IEEE Control System Society External Member IEEE-USA Transportation Policy 1995-2005
- Organizer of the Workshop on Modeling and Control of Complex Systems, June 30-July 2, 2005, Ayia Napa, Cyprus
- Invited participant to FHWA Advanced Research Think Tank Meeting, Berkeley, CA October 26-27, 2006
- Steering Committee Chair IEEE 13th Mediterranean Conference, June 2005, Limassol, Cyprus
- Technical Program Chairman IEEE 12th Mediterranean Conference, June 2004, Kusadaci, Turkey
- Session Chair at IEEE Conference on Decisions and Control and European Control Conference, Dec. 2005, Seville Spain
- Session Chair at IEEE Conference on Intelligent Transportation Systems, Sept. 2005, Vienna Austria
- Control System Society Member on IEEE ITS Council Committee, 1997 to 2005
- Control System Society Chair Member of Technical Activities Board, 2000 to 2005
- Guest Editor on Special Issue on Adaptive Cruise Control, IEEE Transactions on Intelligent Transportation Systems, Sept. 2003, Vol. 4, No. 3

- External Committee Member on IEEE-USA Transportation and Aerospace Technology Policy, 2000-2005
- Vice-Chairman of the IFAC Technical Committee on Transportation Systems, 2000 to 2005
- Associate Editor for the IEEE Transactions on ITS 1999- 2004
- Associate Editor for Automatica, December 1993 - 1995.
- Associate Editor for the IEEE Transactions on Automatic Control, 1987 - 1990.
- Member of the Editorial Board for the International Journal of Control. 1990-1995
- Member of the Technical Review Panel for the IVHS-IDEA program of the Transportation Research Board, 1992- 2000.
- Member of the Steering Committee on Advanced Vehicle Control Systems of IVHS America, 1992- 2000
- Member of the Advisory Group on Highway Electrification and Automation Technologies Project for the Southern California Association of Governments, 1992
- Session Chairman: The Third Yale Workshop on Applications of Adaptive Systems Theory, June 1983; 1984, 1989, 1992, 1993, 1996, 1997 American Control Conference; 1986, 1987, 1988, 1989, 1993, 1996, 1997, IEEE Conference on Decision and Control.
- Co-Organizer of the Montana Summer Institute on Current Issues in Adaptive Control, August 1984, 1985.
- Session Organizer: 1986, 1990, 1992 IEEE Conference on Decision and Control.
- Program Committee Member: 1987, 1992, 1997 IEEE Conference on Decision and Control.
- Program Committee Member: IFAC 7th Symposium on Transportation Systems: Theory and Application of Advanced Technology, China 1994.
- International Program Committee Member: IFAC Workshop on Robustness Issues in Adaptive Control, New South Wales, Australia, August 1988.
- Program Committee Member: International Conference on Vehicle Navigation and Information Systems, Ottawa, Canada, October 1993.
- General Chairman and Organizer of the Third IEEE Mediterranean Symposium on New Directions in Control and Automation, July 11-13, 1995, Limassol, Cyprus
- Member of the IEEE Control System Society, Fellow Nominating Committee, 2000
- Finance Chairman and Organizer of the 5th IEEE Mediterranean Symposium on Control and Systems, July 21-23, 1997, Paphos, Cyprus

- International Program Committee Member: International Conference on Advances in Vehicle Control and Safety, AVCS'98, Amiens-France, July 1-3, 1998
- Program Chairman of the 3rd IEEE Conference on Intelligent Transportation Systems, 2000

2010

- Member of the Board of Governors of the IEEE Intelligent Transportation Systems Society, 2005-present
- Member of the Board of Governors of the Mediterranean Control Association, 1998-present
- Chairman of the IFAC Technical Committee on Transportation Systems, 2005 to 2009
- Associate Editor of the 13th International IEEE Conference on Intelligent Transportation Systems – ITSC2010
- Associate Editor for 2010 Intelligent Vehicles Symposium June 21-24, 2010 in University of California, San Diego, CA, USA
- NSF Review Panelist NSF CPS Medium Panel, Transportation, P101806 June 7-8, 2010
- Expert panel member for evaluating ‘Concepts and Solutions for Zero-Emission Container Movement Systems’ for the Ports of Los Angeles/Long Beach and Alameda Corridor Transportation Authority, 2010
- Panel member of the Ministry of Education of the Republic of Cyprus committee (SEKAP) for accreditation of University programs in Cyprus 2007-2011
- Expert panel member to review test plans by the USDOT/VOLPE to look into vehicle safety with focus on alleged unattended Toyota acceleration problem 2010
- Invited Participant NSF-sponsored Workshop on ‘*The Future of Intelligent Transportation Systems and its Implication with regard to Mobility and Sustainability*’, Columbus, Ohio, May 4-5, 2010
- IPC member IFAC Symposium Advances in Automotive Control, Munich, Germany, July 12-14, 2010
- Member of the European Space Policy expert panel of the Ministry of Transportation and Works of the Republic of Cyprus 1/2009- present
- **Guest Editor** of the special Issue on ‘Selected papers from the 2nd National Urban Freight Conference, Long Beach, CA, Dec. 2007’ Transportation Research Part E: Logistics and Transportation Review, Vol. 46E, issue 4, July 2010

2011

- Member of the Board of Governors of the IEEE Intelligent Transportation Systems Society, 2005-present

- Member of Evaluation Committee of Private College and University Programs appointed by the Ministry of Education of the Republic of Cyprus, 2011-present
- International Program Chair of the IFAC Symposium on Control in Transportation to take place in Sept. 2012 in Sofia, Bulgaria.
- Panel Reviewer for the Department of Energy (DOE) ‘Driver Feedback Technology Area of Interest of the FY 2011 Vehicle Technologies Program Wide Funding Opportunity Announcement (FOA-0000239)
- Associate Editor, 2012 IEEE International Conference on Vehicular Electronics and Safety (ICVES'12) sponsored by the IEEE Intelligent Transportation Systems Society Istanbul July 24-27, 2012.
- TracK Chair on Port Operations and Program Organizer Committee member of the 4th METRANS National Urban Freight Conference, Long Beach, CA, October 12-14, 2011
- Program Committee Member of the 2012 International Conference on Logistics and Maritime Systems (LOGMS) to be held in Bremen, Germany, August 22-24 2012.
- Program Committee Member of the 2011 IEEE Mediterranean Conference on Control and Automation, Corfu, Greece
- Chair of the external evaluation committee for the Department of Electrical and Electronic Engineering of the Technical University of Crete, Chania, Greece appointed by the Higher Education Quality Assurance Agency of Greece, May/June 2011.
- Reviewer for the Research Grant Council (RGC) of Hong Kong, 2011
- Reviewer for the EPSRC Research Grants, UK, 2011
- Associate Editor for the Intelligent Vehicle Symposium June 2011 Kongresshaus Baden-Baden, Germany
- Guest Editor for International Journal of Adaptive Control and Signal Processing on ‘New trends in Adaptive Control Systems’ 2011
- Advisory Board Member for the Integrated Series on Intelligent Systems Books to be published by Zhejiang University and Springer

University Services/Committees/Activities

Current

- Director of the Masters Degree Program in Financial Engineering 2008-present
- Director of the Center for Advanced Transportation Technologies 1992-present
- Member of executive committee of METRANS 1999-present
- Associate Director for Research for METRANS 2006-present
- Member of the Merit Review Committee for Teaching and Service 2010

- Member of Engineering Faculty Council (EFC) Sept. 2010-present
- Representative of EFC to the Division of Engineering Education (DEE) School of Engineering Committee, Oct. 2010-2011
- Meeting with incoming MS students on Preview event on Financial Engineering Incoming Students, November 4, 2011, Town and Gown
- Member of the advisory committee of the Ming Hsieh Institute (MHI) 2011-present

2006-2008

- Chair of Merit Review Department Sub-Committee 2004-2006
- Controls group leader 2004-2008
- Member of the Engineering Faculty Council 2004-2008

2004-2005

- Chair of the Faculty Merit Review Committee of the Engineering Faculty Council 2005
- Chair of the Department Research Merit Committee for 2004 evaluation
- Engineering Faculty Subcommittee on Dean's Evaluation, 2004/2005
- Associate Chairman of Engineering Faculty Council 2004-2005
- Member of University Faculty Senate 2004-2005
- Member of University Research Committee 2004-2005
- Member of Executive Committee for Appointment, Promotion, and Tenure, School of Engineering, 2003-2005
- Chair of Research Merit Committee 2005

2001-2003

- EE-Systems Department Strategic Guidance Committee Member 2001-present
- Chair of Research Merit Committee , 2001
- Chair of Research Merit Committee , 2002
- Member of Search Committee for EE-Systems Department Chair, 2002-03
- Member of the EE-Systems Department Curriculum Committee 2002-present
- METRANS Executive Committee Member 2000-present
- Director Center for Advanced Transportation Technologies 1992-present
- Member of Executive Committee for Appointment, Promotion, and Tenure, School of Engineering, 2003
- Member of EE-Systems Nomination for Awards Committee 2003-present

AWARDS AND HONORS

- 2012 IEEE ITSS Outstanding Research Award
- Invited to be a Key-note speaker in the “Indo-US Conference, On Preventing Road Crash Injury Through Vehicle Safety Design” to be held in the Indian Institute of Science, Bangalore on March 6 and 7, 2012.
- Invited to be a Key-note speaker in the 10th IEEE International Conference on Control & Automation (IEEE ICCA 2013) will be held from June 12-14, 2013, in Hangzhou, China
- Invited to be a Plenary speaker for the Chinese Control Conference, Hafei, China, July 25-27, 2012

- Rated as the 2nd most productive author and the 6th most cited author in the IEEE Transactions on ITS (see study in, L. Li et.al. 'A Bibliographic Analysis of the IEEE Transactions on Intelligent Transportation Systems Literature' IEEE Trans. on ITS vol.11, no.2, June 2010 pp 251-255)
- 2008 IEEE ITSS Outstanding ITS Application Award, June 2009
- 2009 IET Heaviside Medal for Achievement in Control, November 2009
- Fellow of the Institution of Engineering and Technology (IET), 2009
- Fellow of the Institute of Electrical and Electronic Engineers (IEEE) since 1992
- Fellow of the International Federation of Automatic Control since 2006
- Outstanding Teacher of the Year, The Latter-day Saint Student Association, March 2007
- Plenary Speaker at the 17th Mediterranean Conference on Control and Automation, June 24-26, 2009, Makedonia Palace, Thessaloniki, Greece
- Semi-Plenary Speaker at the 47th IEEE Conference on Decision and Control, Dec. 9-11, 2008 Cancun, Mexico
- Invited to be a Keynote Speaker at the 2nd IEEE Conference on Industrial Electronics & Applications, 23-25 May, 2007
- Plenary Speaker at the 11th IFAC Symposium on Control in Transportation Systems, August 28-September 1st, 2006, Delft, Netherlands
- Plenary Speaker IEEE International Conference on Vehicular Electronics and Safety, Oct. 14-16, 2005, Xi'an, China
- 1985 Presidential Young Investigator Award, The White House, February 14, 1985. A five-year award.
- Outstanding Transactions Paper Award for the best paper published in the IEEE Transactions on Automatic Control during 1982, 1983.
- Best Paper Presentation at the Session on "Numerical Methods in Analysis and Design of Control Systems" at the 1991 American Control Conference.
- Best Paper Presentation at the Session TA1 on "Robust Adaptive Control" at the 1989 American Control Conference.
- Best Paper Presentation for the paper "Identification and Control of Aircraft Dynamics Using Radial Basis Function Neural Networks" in the 1992 AIAA Guidance, Navigation and Control Conference.

- Commonwealth Scholarship, April 1975 - July 1978, The Association of Commonwealth Universities, London, England.
- Sessional Prize, A Goldsmid Prize, for the sessions 1975-1976, 1976-1977, University College, London, England.
- P. Head Prize, June 1978, University College, London, England; Most Outstanding graduate from Mechanical Engineering Department.

TEACHING

1. Courses Taught

- "Parameter Identification and Adaptive Control" (EE 599, EE 685)
- " Nonlinear Control Systems" (EE 587)
- "Linear Control Systems" (EE 482)
- "Digital Control Systems" (EE 543a, EE485)
- "Digital Control Laboratory Experiments" (EE 543bL -- Lab course)
- "Feedback Systems: Input-Output Properties" (EE 599)
- "Probability and Statistics" (EE364)
- Linear Algebra and Differential Equations (Math 225)
- Ordinary Differential Equations (ENG499)
- Linear Systems Theory (EE585)
- Mathematics of Financial Engineering, 60 hour course for the USC Viterbi School of Engineering, Professional Programs, Fall 2011

2. Courses Developed

- Mathematics of Financial Engineering, 60 hour course for the USC Viterbi School of Engineering, Professional Programs, Fall 2011
- which I developed and taught in Fall of 2011
- "Parameter Identification and Adaptive Control" (EE 685)
- "Digital Control Systems" (EE 543a)
- "Digital Control Laboratory Experiments" (EE 543bL)
- Re-organized "Nonlinear Control Systems" (EE 587)
- Combine EE685 and EE587 into one course Nonlinear and Adaptive Control (EE587)

3. Programs Developed

- Aerospace Controls Program for Masters students, 1984
- Masters Degree Program in Financial Engineering, 2009

4. Short Courses

- "Traffic Flow Modeling and Control and Intelligent Vehicle and Highway Systems," Crown Sterling Suites, Los Angeles, June 1-4, 1993.
- "Intelligent Vehicle and Highway Systems" Lake Buena Vista, FL., December 1994.
- " Robust Adaptive Control Designs for Linear and Nonlinear Plants" 13th IFAC World Congress, San Francisco, CA, June 30- July 5, 1996
- " Control Issues in Intelligent Vehicle Highway Systems" 13th IFAC World Congress, San Francisco, CA, June 30- July 5, 1996
- " Robust Adaptive Control " IEEE Intern. Conf. on Control Applications, Dearborn, MI, Sept. 15-18, 1996

- "Design of Robust Adaptive Systems" 36th IEEE Conf. On Decision and Control, San Diego, CA, Dec. 8, 1997
- "Control Issues in Intelligent Vehicle Highway Systems" 36th IEEE Conf. On Decision and Control, San Diego, CA, Dec. 9, 1997.
- "Mathematics of the Internet" Department of Computer Science, University of Cyprus, June 2004
- 'Robust Adaptive Control' NASA Glen Research Center, Cleveland Ohio, June 2005

5. Invited Talks (other than conference papers. Selected list)

1985-86

- "Robustness Issues in Adaptive Control," at Montana Summer Institute on Current Issues in Adaptive Control, August 1984, 1985.
- "Adaptive Control: Theory and Applications," at AIAA Orange County Section, November 1985.
- "Robust Adaptive Control," General Motors Research Laboratories, Project Trilby, November 1985.
- "Robust Adaptive Tuning of Controllers," Ford Motor Company, June 1986.
- "Robust Adaptive Tuning of Controllers," General Motors Research Laboratories, Project Trilby, June 1986.
- "Theory and Design of Robust Adaptive Control Schemes," Oxford University, Department of Engineering Science, Oxford, England, July 1986.
- "Robust Adaptive Control," USC Industrial Associates Research Review, 1983, 1985.

1987

- "Adaptive Control of Time-Varying Plants," Workshop on Robust and Adaptive Control, Oaxaca, Mexico, December 2-4, 1987.

1988

- "Robust Adaptive Control: Theory, Applications, Limitations," Ford Motor Company, Electrical Engineering Division, July 28, 1988.
- "Design, Implementation and Testing of the Steer-by-Wire Control System," Project Trilby, General Motors Research Labs, July 27, 1988.
- "Adaptive Control of Time Varying Plants," Australian National University, November 1, 1988; and University of Newcastle, October 1988.
- "Time and Frequency Domain Uncertainty Bounds in Robust Adaptive Control," Australian National University, October 31, 1988; and University of Newcastle, October 1988.

1989

- "Robust Adaptive Control for Linear Plants," SIAM Conf. on Control in the 90's: Achievements, Opportunities and Challenges, May 17-19, 1989, San Francisco, CA.

- "Robust Adaptive Control," University of California at Santa Barbara, May 1989.

1990

- "Robust Adaptive Control: A Unified Approach," the 1990 Grainger Lectures on Foundations of Adaptive Control, University of Illinois, September 28 - October 1, 1990.
- "Decentralized Indirect Adaptive Control of Interconnected Systems," Rockwell International, Thousand Oaks, CA, October 11, 1990.
- "Learning and Convergence Analysis of Structured Networks," Rockwell International, Thousand Oaks, CA, October 11, 1990.

1991

- "Performance Improvement versus Robust Stability in Model Reference Adaptive Control", Berkeley Center for Systems and Control, University of California Berkeley, California, April 12, 1991.
- "Indirect Adaptive Control " University of California at Santa Barbara, May 28, 1991.

1992

- "Adaptive Identification and Control Using On-line Approximators: Neural Networks and Beyond," Distinguished Speaker Series, Dept. of Electrical Engineering, Texas A & M University, April 28, 1992.
- "Intelligent Highways," Center for Control Engineering & Computation, University of California at Santa Barbara, Nov. 3, 1992.

1993

- "Intelligent Vehicle on Automated Highways," Ford Motor Company, Sponsored by the IEEE Signal Proc. and Control Societies, May 13, 1993.
- "Classes of Model Reference Adaptive Control Schemes," Institute of Mathematics and Its Applications, University of Minnesota, April 12-16, 1993.

1998

- "Vehicle and Traffic Flow Control" , Georgia Institute of Technology, January 20, 1998, Distinguished Lecture Series

2000

- "The Use of Position Error Signal Measurements from Data and Servo Sectors for Disk Drive Servo Control" February 2, 2000, University of California Santa Barbara

2001

- "The Effect of Intelligent Cruise Control Vehicles in Mixed Traffic on the Environment and Traffic Flow Characteristics", Advanced Transportation Technologies Seminar Series, Intelligent Transportation Systems Institute, Center for Transportation Studies, University of Minnesota, October 9, 2001
- "Effects of ICC Vehicles on Mixed Traffic Flow" PATH Program-Wide Research Meeting, October 18, 2001

2002

- 'Adaptive Cruise Control (ACC) for Passenger Vehicles and Trucks: Effect on Traffic Flow Characteristics and Environment' University of California at Riverside, Department of Electrical Engineering

2007

- ‘From Robust Adaptive Control to Practical Adaptive Control’ University of California in Santa Barbara, Nov. 2, 2007

2009

- ‘Robust Adaptive Control: Accomplishments and Realities’, 2009 Monie A. Ferst Award Symposium in honor of Professor Kokotovic, Georgia Institute of Technology Chapter of Sigma Xi, October 26, 2009
- ‘Smart Vehicles and Intelligent Transportation Systems’ IET Honor Award presentation organized by the IET local chapter and the Cyprus University of Technology, Dec. 2, 2009

RESEARCH

Research Interests

- **Control Systems and Applications:** Robust Adaptive Control, Nonlinear and Adaptive Control, Neural Networks, Decentralized Control, Failure Detection, Isolation and Control Reconfiguration
- **Control Applications:** Control of Large Scale Structures, Control of Segmented Telescopes, Control of Disk Drives, Intelligent Flight Control Systems, Congestion Control in Computer and Communication Networks
- **Transportation Systems:** Vehicle Dynamics and Control, Adaptive Cruise Control, Collision Avoidance Systems, Automated Highway Systems, Traffic Flow Modeling and Control, Automated Container Terminals, Vehicle Routing and Dispatching, Advanced Transportation Technologies

Research Grants and Contracts

- **Faculty Research and Innovation Fund, Univ. of So. California**
Period: 6/83 - 6/84, Amount: \$2,200.00
Title: Robust Decentralized Adaptive Controllers
- **National Science Foundation**
Period : 9/84 – 9/85 Amount: \$58,334.00
Title: Development of Control Algorithms for Electrical Stimulation of the Human Leg (Subcontract under Rancho Los Amigos Hospital)
- **National Science Foundation**
Period: 1/84 - 1/87 Amount: \$75,000.00
Title: Asymptotic Analysis and Robust Design of Adaptive Control
- **NSF Presidential Young Investigator Award**
Period: 8/85 - 8/90 Amount: \$125,000.00
- **NSF Presidential Young Investigator Award and General Motors Matching Funds**
Period: 12/85 - 6/91 Amount: \$500,000.00
Title: Development of Robust Adaptive Control Techniques for Large Scale Systems
- **Ford Motor Company**

Period: 12/85 - 12/87 Amount: \$17,500.00
Title: Adaptive Control Algorithms

- **AT & T**
Period: 12/85 - 12/87 Amount: \$50,000.00
Title: Control Techniques for Packet Switching Networks
- **Collaborative Faculty Research and Innovation Fund, Univ. of So. California**
Period: 1/85 - 1/86 Amount: \$43,347.00
Title: Development of Laboratory for Modeling and Control
With Co-PIs G. Shiflett and H. Flashner
- **Sun Microsystems, Inc.**
Period: 10/86 - 10/87 Amount: \$14,600.00
Sun Workstation
- **Rockwell International**
Period: 6/87 - 8/88 Amount: \$154,607.00
Title: Adaptive Roll Control Studies of the ATW Wind Tunnel Model
(With M. Safonov as co-PI)
- **AT & T Information System**
Period: 7/88 - 7/90 Amount: \$145,000.00
Title: Adaptive Routing and Learning Automata in Networks
- **National Science Foundation**
Period: 9/88 - 7/89 Amount: \$11,551.00
Title: Development of Appropriate Adaptive Control Laws for Time-Varying Plant
- **Caltrans/PATH**
Period: 9/91-5/95 Amount: \$2,124,898.00
Title: Automated Vehicle Control
- **Ford Motor Company**
Period: 6/92 - 6/93 Amount: \$75,000.00
Title: Autonomous Intelligent Cruise Control
- **National Science Foundation**
Period: 8/92 - 8/94 Amount: \$100,000.00
Title: Adaptive Control: Design Trade-Offs, Robustness, Performance
- **FHWA**
Period: 10/93-9/94 Amount: \$586,000.00
Title: Precursor Systems Analysis of Automated Highway Systems
- **Taiwan Ministry of Economic Affairs**
Period: 7/93-6/96 Amount: \$450,000.00
Title: Identification and Control of Nonlinear Systems using Neural Networks
- **Caltrans/PATH**

Period: 2/95-7/97 Amount: \$175,000.00
Title: Evaluation and Analysis of Automated Highway System Concepts and Architectures

- **USTRANSCOM/California State University Long Beach**
Period: 10/95-9/96 Amount: \$187,415.00
Title: Center for Commercial Deployment of Transportation Technologies
- **Caltrans/PATH**
Period: 2/95-7/96 Amount: \$277,363.00
Title: Development and Experimental Evaluation of Autonomous Vehicles for Roadway/Vehicle Cooperative Driving
- **PATH**
Period: 1/95-12/95 Amount: \$49,000.00
Title: National AHS Consortium
Co-PI with R. Hall
- **Caltrans/PATH**
Period: 3/96-2/97 Amount: \$167,056.00
Title: Field Test of Vehicle-Mounted, Forward-Looking Range & Relative Velocity Sensor in Closed-Loop AVCS” (With Amerigon)
- **NASA/California State University Los Angeles**
Period: 9/96-8/99 Amount: \$300,000.00
Title: The Use of decentralized Control in Design of a Large Segmented Space Reflector
- **Caltrans/PATH**
Period: 10/96- 9/97 Amount: \$86,000.00
Title: Evaluation of Automated/Mixed Traffic
- **Caltrans/PATH**
Period: 11/01/97-06/30/98 Amount: \$42,000.00
Title: Evaluation and Analysis of Automated Highway System Concepts and Architectures
- **Caltrans/PATH**
Period: 01/01/98-08/31/99 Amount: \$78,356.00
Title: Mixed Automated and Manual Traffic
- **USTRANSCOM/California State University Long Beach**
Period: 3/1/98- 12/1999 Amount: \$450,000.00
Title: Center for Commercial Deployment of Transportation Technologies
- **USTRANSCOM/California State University Long Beach**
Period: 9/1999-8/00 Amount: \$427,000.00
Title: Center for Commercial Deployment of Transportation Technologies
- **National Science Foundation**
Period: 5/1/99-4/30/2002 Amount: \$240,000.00
Title: On-Line Learning and Control of Partially-Known and Unknown Non-Linear Systems

- **Caltrans/PATH**
 Period: 9/01/99-6/30/2001 Amount: \$190, 217.00
 Title: Evaluation of the Effects of Intelligent Cruise Control Vehicles in Mixed Traffic
- **Caltrans**
 Period: 1/99-1/2000 Amount: \$274,400
 Title: Cooperation on Transportation Research
 (Co-PI with R. Hall, J. Moore, E. Axelband and G. Giuliano)
- **DOT/METRANS**
 Period: 7/1/99-8/31/2000 Amount: \$50,000
 Title: Modeling and Route Guidance of Trucks in Metropolitan Area
- **NASA/California State University Los Angeles**
 Period: 1/2000-12/2002 Amount: \$162,420.00
 Title: Control of a Large Segmented Space Reflector Test Bed
- **DOT/METRANS**
 Period: 9/1/2000-8/31/2001 Amount: \$47,000
 Title: Dynamic Optimization of Cargo Movement by Trucks in Metropolitan Areas with Adjacent Ports
- **Caltrans/PATH**
 Period: 1/01/01-6/30/2003 Amount: \$232,845
 Title: Control of Heavy Duty Vehicles; Environmental and Fuel Economy Considerations
- **Air Force/California State University Los Angeles**
 Period: 8/1/01- 7/31/04 Amount: \$800,000
 Title: Multidisciplinary Analyses and Control of High Performance Air Vehicles
 (Co-PI with M. Mirmirani, H. Boussalis and C. Wu)
- **DOT/METRANS**
 Period: 7/1/2001-8/31/2002 Amount: \$50,000
 Title: Automated Trucks on Dedicated Lanes for Cargo Movement
- **National Science Foundation/USDOT**
 Period: 1/01/02-12/31/02 Amount: \$99,933
 Title: Dynamic Cargo Assignment and Route Planning in the Trucking Industry
 (Co-PI with R. Hall and M. Dessouky)
- **PATH/Caltrans**
 Period: 10/01/03- 6/30/06 Amount: \$416,338.00
 Integrated Roadway/Adaptive Cruise Control System: Safety, Performance, Environmental and Near Term Deployment Considerations
- **NASA/ California State University Los Angeles**
 Period: 03/01/03-02/28/09 Amount: \$3,000,000
 Title: Intelligent Flight Control
 (with M. Mirmirani)

- **METRANS**
 Period: 8/1/2003-3/31/2005 Amount: \$190,000
 Title: Cooperative Optimum Time Window Generation for Cargo Delivery/Pick up with Application to Container Terminals
 (with A. Chassiakos)
- **METRANS**
 Period: 8/15/2003-8/14/2004 Amount: \$90,000
 Title: A Novel Approach to Routing and Dispatching Trucks Based on Partial Information in a Dynamic Environment
 (with M. Dessouky)
- **DOT University Center**
 Period: 10/21/98-06/30/07 Amount: \$4,957,200.00
 Title: Metropolitan Transportation Center (METRANS)
 (with G. Giuliano (PI), R. Hall, J. Moore)
- **CALTRANS University Center**
 Period: 06/01/99-06/30/07 Amount: \$4,285,200.00
 Title: Metropolitan Transportation Center (METRANS)
 (with G. Giuliano (PI), R. Hall, J. Moore)
- **METRANS**
 Period: 10/01/2004-12/05/2005 Amount: \$150,000
 Title: Development of Methods for Handling Empty Containers with Applications in the Los Angeles/Long Beach Port
 (with A. Chassiakos)
- **DOT/METRANS**
 Period: 09/01/2005-08/31/2006 Amount: \$150,000
 Title: Simulation Test bed and Evaluation of Truck Movement Concepts on Terminal Efficiency and Traffic Flow
 (with A. Chassiakos)
- **National Science Foundation**
 Period: 08/15/05-07/31/2010 Amount: \$240,000
 Title: GOALI: Nonlinear Adaptive Control and Sensing for Precision Control with Application to Servo Control of Disk Drives
 (with Alvin Despain)
- **US DOT Research and Special Projects Administration**
 Period: 07/01/05-06/30/06 Amount: \$780,000.00
 Title: Metropolitan Transportation Center (METRANS)
 (with G. Giuliano (PI), J. Moore, M. Dessouky)
- **California Department of Transportation**
 Period: 07/01/05-06/30/06 Amount: \$780,000.00 (matching funds)
 Title: Metropolitan Transportation Center (METRANS)
 (with G. Giuliano (PI), J. Moore, M. Dessouky)

- **US DOT Research and Special Projects Administration**
 Period: 07/01/06-06/30/07 Amount: \$860,000.00
 Title: Metropolitan Transportation Center (METTRANS)
 (with G. Giuliano (PI), J. Moore, M. Dessouky)
- **California Department of Transportation**
 Period: 07/01/06-06/30/07 Amount: \$860,000.00 (matching funds)
 Title: Metropolitan Transportation Center (METTRANS)
 (with G. Giuliano (PI), J. Moore, M. Dessouky)
- **US DOT Research and Special Projects Administration**
 Period: 07/01/07-06/30/10 Amount: \$3,000,000.00
 Title: Metropolitan Transportation Center (METTRANS)
 (with G. Giuliano (PI), J. Moore, M. Dessouky)
- **California Department of Transportation**
 Period: 07/01/07-06/30/10 Amount: \$3,000,000.00 (matching funds)
 Title: Metropolitan Transportation Center (METTRANS)
 (with G. Giuliano (PI), J. Moore, M. Dessouky)
- **METRANS**
 Period: 02/01/2007-01/31/2009 Amount: \$359,507.00
 Title: Reconfiguration Strategies for Mitigating the Impacts of Port Disruptions
 (with A. Chassiakos)
- **Foundation for Research Promotion/University of Cyprus**
 Period: January 2007- December 2008, Amount:\$178,000
 Title: TrafficNet
 (with A. Pitsillides)
- **NASA/ California State University Los Angeles**
 Period: 03/01/07-02/28/09 Amount: \$442,500
 Title: Intelligent Flight Control
 (with M. Mirmirani)
- **METRANS**
 Period: 09/01/2008-02/28/2010 Amount: \$90,000
 Title: 'Risks and Recoveries from Extreme Disruptions in Freight Transportation System in a Megacity: Case Study for the Greater Los Angeles Area'
 (with J.P. Bardet and J. Moore)
- **California Department of Transportation**
 Period: 10/01/06-09/30/11 Amount: \$3,583,000
 Title: METTRANS: National Center for Metropolitan Transportation Research,
 Grant DTRT07-G-0060 USC Proposal no. 15481.0001
 (with G. Giuliano (PI), J. Moore, M. Dessouky)
- **Foundation for Research Promotion/University of Cyprus**

Period: December 2008- December 2010, Amount: \$130,000
Title: Emergency Message Dissemination for Safety Applications in Vehicular Adhoc Networks (VANETS) (with A. Pitsillides)

- **Department of Homeland Security/CREATE**
Period: January 2009-August 2009, Amount: \$50,465.00
Title: Terminal/Roadway modeling and security scenarios analysis
- **Department of Homeland Security/CREATE**
Period: August 2009-December 2009, Amount: \$50,609.00
Title: Terminal/Roadway modeling and security scenarios analysis year 2
- **Department of Homeland Security/CREATE**
Period: January 2010-December 2010, Amount: \$50,609.00
Title: Terminal/Roadway modeling and security scenarios analysis year 3
- **California Department of Transportation/METRANS**
USC Account no. 53-4503-3680
Period: 01/01/2011-12/31/2011 Amount: \$90,000
Title: Dynamic Variable Speed Limit Control: Design, Analysis and Benefits
- **VW Group of America**
USC Account no. 53-4503-3483
Period: 01/01/2011-12/31/2013 Amount: \$450,000
Title: AUDI Urban Intelligent Drive Assist
- **Northrop Grumman Aerospace Systems**
USC Account no. 22-1503-1300
Period: 01/01/2011-till spent , Amount: \$25K
Title: Stability Margins in Adaptive Control
- **Korean Maritime Institute**
USC Account no. 22-1503-1500
Period: 07/01/2011-till spent, Amount: \$30K
Title: Survey of Logistics Technologies in the USA

Ph.D Students

Graduated a total of 28 PhD students as of December 2010,
11 are in Academia and 4 are Fellows of IEEE. See list below:

1. **Manuel de Ponte**
"Decentralized Adaptive Control for Large Scale Systems"
Graduated July 1988
2. **Kostas Tsakalis**
"Adaptive Control of Time Varying Plants"
Graduated August 1988
Professor at Arizona State University
3. **John Reed**
"Robust Adaptive Control of Robotic Manipulators"
Graduated August 1988
4. **Jing Sun**
"Robust Adaptive Tuning of Controllers"
Graduated August 1989
Professor University of Michigan Ann Arbor
Fellow of IEEE 2003
5. **Gang Tao**
"Model Reference Adaptive Control: Stability, Robustness and Performance Improvement"
Graduated August 1989
Professor at University of Virginia in Charlottesville
Fellow of IEEE 2007
6. **Anastasios Economides**
"A Unified Game-Theoretic Methodology for the Joint Load Sharing, Routing and Congestion Control Problem"
Graduated December 1990
Professor at University of Macedonia
7. **Aniruddha Datta**
"Quantitative Analysis and Robust Design of Adaptive Control Systems: Robustness Performance Tradeoffs"
Graduated August 1991,
Professor at Texas A&M University
Fellow of IEEE, 2008
8. **Marios Polycarpou**
"Artificial Neural Networks for Control Applications"
Graduated September 1992
Professor at University of Cyprus
Fellow of IEEE 2006

9. **Farid Ahmed-Zaid**
Control and Adaptation of Time Varying Nonlinear Systems"
Graduated summer 1993
With Ford Motor Company
10. **Michael Demetriou**
"Robust Adaptive Control for Infinite Dimensional Systems"
Graduated summer 1993
Professor at Worcester Polytechnic Institute
11. **C.C. Chien**
"Intelligent Vehicles and Highway Systems"
Graduated summer 1994
Professor in Taiwan
12. **Youping Zhang**
" Robustness of Nonlinear Adaptive Control "
Graduated summer 1996
13. **Humair Raza**
"Infrastructure Managed Vehicle Following: A Control Perspective"
Graduated summer 1997
www.tellabs.com, humair.raza@tellabs.com, phone 408-421-5698
Santa Clara, CA
14. **Alex Kanaris**
"Automated Highway Systems: Concepts, Spacing Requirements and Performance"
Graduated December 2000
Research Engineer
Apple Computers, CA
USA
15. **Arnab Bose**
"Design, Analysis and Evaluation of Semi-Automated Vehicles in Mixed Traffic"
Graduated August, 2000
16. **Kun Li**
"Modeling and Overlapping Decentralized Control of a Large Segmented Telescope Test Bed"
Graduated August, 2001
17. **Chin I Liu**
"Design, Modeling, Simulation and Optimization of Automated Container Terminals"
Graduated December 2001
Senior Design Engineer
Aplus Flash Technology
San Jose, CA 95131
USA
18. **Haojian Xu**
"Robust Adaptive Control of Nonlinear Systems with Guaranteed Error Bounds"

Graduated December 2002
Kulicke & Soffa Industries Inc.
<http://www.kns.com>

19. Hossein Jula

“Modeling and Dynamic Optimization of Container Movement in Metropolitan Networks”
Graduated August 2002
Professor
School of Science, Engineering and Technology
Penn State University - Harrisburg
Middletown, PA 17057-4898
hjula@psu.edu

20. Baris Fidan

“Nonlinear and Adaptive Control of Time Varying and Multivariable Systems”
Graduated December 2002
University of Waterloo, Canada

21. Marios Lestas

‘Intelligent Congestion Control for Computer Networks’
Graduated October 2005
Frederick University of Cyprus

22. Jianlong Zhang

‘Practical Adaptive Control: Theory and Applications’
Graduated February 2006
Advertisiting.com, San Jose, California

23. Manorama Gollakota

‘GPS Receiver Improvements for Low Signal-to-Noise Ratio Applications’
Graduated December 2006
Aerospace Corporation, El Segundo, CA

24. Nazli Kahveci ‘Robust Adaptive Control for Unmanned Aerial Vehicles’

December 2007
Ford Motor Company

25. Matthew Kuipers ‘Multiple Model Adaptive Control with Mixing’

Defense date April 1st, 2009
Back to School to become a Patent Lawyer

26. Jason Levin ‘Practical Adaptive Control for Systems with Flexible Modes, Disturbances, and Time Delays’

Defense date: May 18, 2009
With General Atomics

27. Hwan Chang ‘Reconfiguration strategies for mitigating the impact of port disruptions’

Defense date: May 19, 2009
Back in Korea

28. Ying Huo, ‘Adaptive Reconfigurable Control with Mission Modification’

Defense September 15, 2009

29. **Yun Wang**, 'Dynamic Variable Speed Limit Control: Design, Analysis and Benefits'
Defense May 2011

PhD Guidance Committee Member (not main advisor, most recent)

2011

- **Lai Chow-Yin**
Adaptive Systems with Multiple Models
PhD thesis at the National University of Singapore
- **Michael K. Borre**
Periodic Solutions of Flexible Systems under Discontinuous Control
Department of Aerospace and Mechanical Engineering
March 2011
- **Amir Ghasem Zand**
Enabling Geotechnical Data for Broader Use by the Spatial Data Infrastructures
Department of Civil Engineering
April 25, 2011
- **Qunzhi Zhou**
Inexact Semantic Complex Event Processing and Its Applications for Demand Response in Smart Grid
Qualifying April 21, 2011
- **Chen Wang**
A new Approach for Routing Courier Delivery Services with Urgent Demand
Qualifying Sept. 2, 2011

2010

- **Dennis Alan Plocher**
Spray Lifted by a Tire Groove on a Wet Roadway
Department of Aerospace and Mechanical Engineering,
January 2010
- **Mubarak Alharashani**
Relaxing Convergence Assumptions for Continuous Adaptive Control
Department of Electrical Engineering-Systems
February 2010
- **Michael Chang**
Unfalsified Control and Zames-Falb Multipliers
Qualifying April 27, 2010

2009

- **Mike Borre**
Periodic Solutions of Flexible Systems Under Discontinuous Control
Department of Aerospace and Mechanical Engineering,
(Qualifying) Fall 2009

2007

- **Yann Daniel Staelens**
Study of Belly-Flaps to Enhance Lift and Pitching Moment Coefficient of a Blended-Wing-Body
Airplane in Landing and Take off Configuration

Department of Aerospace and Mechanical Engineering,
December 2007

- **Serkan Kalender**
Robust Control of Periodically Time-Varying Systems
Department of Aerospace and Mechanical Engineering,
August 2007
- **Jeffrey Miller**
'Algorithms and Data Structures for the Real-Time Processing of Traffic Data'
Department of Computer Science
April 2007

2006

- **Babak Mokaberi-Nezhad**
Uncertainty Compensation and Automated Nanomanipulation with Atomic Force Microscopes
Fall 2006
- **Ken Suwarno Susanto**
Design, Modeling and Analysis of Piezoelectric Forceps Actuator
December 2006

2005

- **Paul Ayanendu**
Multi-Controller Adaptive Control (MCAC): Cost Detectability, Stability and Some Applications
August 2005
- **Rengrong Wang**
Applications and Stability of Unfalsified Adaptive Control Using Multiple Controllers
August 2005
- **Margareta Stefanovic**
Safe Switching Adaptive Control: Stability and Convergence
May 2005
- **Serkan Kalender**
Control of Periodically Time-Varying Systems with Applications in Mechanical and Aerospace
Engineering Problems
June 2005
- **Yann Staelens**
Study of Novel Pitch Control Effectors for a Blended Wing Body Airplane in Takeoff and
Landing Configuration
January 2006

2004

- **Nicholas Oleng**
"Decentralized Adaptive Control"
Yale University, March, 2004

2002

- **Lydie Nouveliere**
"Commandes Robustes Appliquees Au Controle Assiste D'un Vehicule A basse Vitesse"
LIVIC, Paris, France, Dec. 5, 2002
- **Hakan Kizilocak**

“Coordinated Multi-Agent Pursuit Using Probabilistic Maps”
Univ. of Southern Calif., Sept. 12, 2002

- **Hsing-Han Meng**
“Stability Analysis and Robust Control Synthesis with Generalized Multipliers”
Univ. of Southern Cal. June 26, 2002

2003

- **Ahmed Mazen Wahbeh**
“Analytical and Experimental Studies in Nonlinear Structural Health Monitoring and System Identification”
Univ. of Southern Calif., Dept. of Civil Engineering, October 2003

PUBLICATIONS

A. Books

1. P. A. Ioannou and P. V. Kokotovic, Adaptive Systems with Reduced Models, Springer-Verlag, 1983.
2. K. S. Tsakalis and P. A. Ioannou, Linear Time Varying Plants: Control and Adaptation, Prentice-Hall, 1993.
3. P. A. Ioannou and J. Sun, Robust Adaptive Control, Prentice Hall, 1996
4. P.A. Ioannou and B. Fidan, Adaptive Control Tutorial, SIAM – Society for Industrial & Applied Mathematics, TJ217.I628, ISBN 0-89871-615-2, 2006.

B. Edited Books

5. Khallil, H., J. Chow and P. Ioannou, Proceedings of Workshop on Advances in Control and its Applications, Springer Verlag, Lecture Notes in Control and Information Sciences, Vol.208, 1996
6. P.A. Ioannou, Automated Highway Systems, Plenum, 1997
7. P.A. Ioannou Intelligent Freight Transportation, CRC Press, 2008
8. P. A. Ioannou and A. Pitsillides Modelling and Control of Complex Systems, CRC Press, 2007

C. Chapters in Books

1. P. A. Ioannou, "Design of Decentralized Adaptive Systems," in Advances in Large Scale Systems--Theory and Applications, Vol. 1, edited by J. B. Cruz, 1984, pp. 117-141.

2. P. A. Ioannou and K. S. Tsakalis, "Robust Discrete-Time Adaptive Control," in Adaptive and Learning Systems: Theory and Applications, Plenum Press, edited by K. S. Narendra, 1986, pp. 73-87.
 3. P. A. Ioannou and A. Datta, "Robust Adaptive Control: Design, Analysis and Robustness Bounds," in Grainger Lectures, edited by P. V. Kokotovic, Springer-Verlag, 1991.
 4. A. Datta and P. A. Ioannou, "Decentralized Adaptive Control," in High Performance Systems Techniques and Applications, Academic Press, Vol. 53, edited by C. T. Leondes, 1992.
 5. G. Tao and P. A. Ioannou, "Stability and Robustness of Multivariable Model Reference Adaptive Control Schemes" in High Performance Systems Techniques and Applications, Academic Press, Vol. 53, edited by C. T. Leondes, 1992.
 6. Polycarpou M. and P. Ioannou, "Stable Nonlinear System Identification Using Neural Network Models", in Neural Networks in Robotics, pp. 147-164, Eds. G. Bekey and K. Goldberg, Kluwer Academic Publishers, 1993
 7. P. Ioannou, "Model Reference Adaptive Control" in The Handbook of Brain Theory and Neural Networks Ed. M. Arbib, The MIT Press, 1995
 8. P. Ioannou, "Model Reference Adaptive Control" in The Control Handbook, Ed. W. Levine, CRC Press and IEEE Press, 1996
 9. P. Ioannou and A. Bose, "Automated Vehicle Control" Handbook of Transportation Science, Ed. R. Hall, pp.187-233, 1999, Kluwer Academic Publishers
 10. P. Ioannou and E. Kosmatopoulos, "Adaptive Control", Encyclopedia of Electrical and Electronics Engineering, Ed. J.G. Webster, John Wiley and Sons, 1999
- 2002**
11. Haojian Xu, Pirre Leung, Maj Mirmirani, Helen Boussalis and Petros Ioannou, 'Adaptive Sliding Mode Control of a Hypersonic Flight Vehicle' Ed. L. D'Amario, L. Sackett, D. Scheeres and B. Williams, Vo. 108, Part II Advances in the Astronautical Sciences, American Astronautical Society, pp. 1947-1961
 12. Petros Ioannou and Arnab Bose 'Automated Vehicle Control' Handbook of Transportation Science, Ed. R. Hall, pp.193-241, 2002 2nd Edition , Kluwer Academic Publishers
- 2005**
13. P. Ioannou and A. Bose 'Automated Vehicle Control' in The Future of Automated Freight Transport: Concepts, Design and Implementation Eds R. Konings,H. Priemus and P. Nijkamp, Edward Elgar Publishing, Inc. 2005, pp.113-129
- 2007**
14. P. Ioannou, Y. Wang and H. Chang 'Modeling, Simulation and Control of Transportation Systems' Chapter 13 pp.407-437 in the book Modeling and Control of Complex Systems, CRC Press, 2007 ed. P. Ioannou and A. Pitsillides, 2007
 15. M. Lestas, A. Pitsillides and P. Ioannou, 'Congestion Control in Computer Networks' Chapter 7 pp.203-246 in the book Modeling and Control of Complex Systems, CRC Press, 2007 ed. P. Ioannou and A. Pitsillides, 2007

2008

16. P. Ioannou, 'Introduction to Intelligent Freight Transportation' Chapter 1, pp.1-6 in the book Intelligent Freight Transportation, CRC Press, 2008 ed. P. Ioannou
17. Petros Ioannou and Hossein Jula, 'Automated Container Terminal Concepts' Chapter 2, pp 7-33, in the book Intelligent Freight Transportation, CRC Press, 2008 ed. P. Ioannou
18. Hossein Jula, Hwan Chang, Anastasios Chassiakos, and Petros Ioannou, ' Empty Container Reuse' Chapter 13 pp. 211-227, in the book Intelligent Freight Transportation, CRC Press, 2008 ed. P. Ioannou

2010

19. Ioannou P.A. 'Model Reference Adaptive Control' The Control Handbook: Control System Advanced Methods, 2nd Edition Edited by W.S. Levine, CRC Press, 2011, pp.34-1 to34-19
20. Ioannou P. A. & Baldi S. 'Robust Adaptive Control' The Control Handbook: Control System Advanced Methods, 2nd Edition Edited by W.S. Levine, CRC Press, 2011, pp.35-1 to 35-21

D. Refereed Journal Papers

1980

1. M. H. Patel and P. A. Ioannou, "Comparative Performance Study of Paddle-and Wedge-Type Wave Generators," Journal of Hydronautics, Vol. 14, No. 1, January 1980, pp. 5-9.

1981

2. P. A. Ioannou, "Robustness of Absolute Stability," International Journal of Control, 1981, Vol. 34, No. 5, pp. 1027-1033.

1982

3. P. A. Ioannou and P. V. Kokotovic, "An Asymptotic Error Analysis of Identifiers and Adaptive Observers in the Presence of Parasitics," IEEE Trans. on Automatic Control, Vol. 27, No. 4, August 1982, pp. 921-927.

1983

4. P. A. Ioannou and C. R. Johnson, Jr., "Reduced-Order Performance of Parallel and Series-Parallel Identifiers with Weakly Observable Parasitics," Automatica, Vol. 19, January 1983, pp. 75-80.

1984

5. P. A. Ioannou and P. V. Kokotovic, "Robust Redesign of Adaptive Control," IEEE Trans. on Automatic Control, Vol. 29, No. 3, March 1984, pp. 202-212.
6. P. A. Ioannou and P. V. Kokotovic, "Instability Analysis and Improvement of Robustness of Adaptive Systems," Automatica, Vol. 20, No. 5, September 1984, pp. 583-594.

1985

7. P. A. Ioannou and P. V. Kokotovic, "Decentralized Adaptive Control of Interconnected Systems with Reduced-Order Models," Automatica, Vol. 21, No. 4, July 1985, pp. 401-412.

1986

8. P. A. Ioannou, "Decentralized Adaptive Control of Interconnected Systems," IEEE Trans. on Automatic Control, Vol. AC-31, No. 4, April 1986, pp. 291-299.
9. P. A. Ioannou, "Robust Adaptive Controller with Zero Residual Tracking Errors," IEEE Trans. on Automatic Control, Vol. AC-31, No. 8, August 1986, pp. 773-776.
10. P. A. Ioannou and K. S. Tsakalis, "A Robust Direct Adaptive Controller," IEEE Trans. on Automatic Control, Vol. 31, No. 11, November 1986.
11. P. A. Ioannou, "Adaptive Stabilization of Not Necessarily Minimum Phase Plants," Systems and Control Letters, Vol. 7, No. 4, pp. 281-287, July 1986.

1987

12. P. A. Ioannou and G. Tao, "Frequency Domain Conditions for Strictly Positive Real Functions," IEEE Trans. on Automatic Control, Vol. AC-32, No. 1, pp. 53-54, January 1987.
13. K. S. Tsakalis and P. A. Ioannou, "Adaptive Control of Time-Varying Plants," Automatica, Vol. 23, No. 4, pp. 459-468, July 1987.

1988

14. P. A. Ioannou and J. Sun, "Theory and Design of Robust Direct and Indirect Adaptive Control Schemes," International Journal of Control, Vol. 47, No. 3, pp. 775-813, 1988.
15. J. Reed and P. A. Ioannou, "Discrete-Time Decentralized Adaptive Control," Automatica, Vol. 24, No. 3, pp. 419-421, 1988.
16. G. Tao and P. A. Ioannou, "Strictly Positive Real Matrices and the Lefschetz-Kalman-Yakubovich Lemma," IEEE Trans. on Automatic Control, Vol. 33, No. 12, pp. 1183-1185, December 1988.
17. G. Tao and P. A. Ioannou, "Robust Model Reference Adaptive Control for Multivariable Plants," International Journal of Adaptive Control and Signal Processing, Vol. 2, pp. 217-248, 1988.
18. K. S. Tsakalis and P. A. Ioannou, "Adaptive Control of Time-Varying Plants: Simple Examples," Int. J. of Adaptive Control and Signal Processing, Vol. 2, pp. 291-309, 1988.

1989

19. K. S. Tsakalis and P. A. Ioannou, "Adaptive Control of Linear Time-Varying Plants: A New Model Reference Controller Structure," IEEE Trans. on Automatic Control, Vol. 34, No. 10, pp. 1038-1047, October 1989.
20. P. A. Ioannou and G. Tao, "Dominant Richness and Improvement of Performance of Robust Adaptive Control," Automatica, Vol. 25, No. 2, pp. 287-291, 1989.
21. J. S. Reed and P. A. Ioannou, "Instability Analysis and Robust Adaptive Control of Robotic Manipulators," IEEE Journal of Robotics and Automation, Vol. 5, No. 3, pp. 381-386, June 1989.
22. G. Tao and P. A. Ioannou, "Robust Adaptive Control of Bilinear Plants," Int. J. of Control, Vol. 50, No. 4, pp. 1153-1167, 1989.

23. G. Tao and P. A. Ioannou, "Robust Stability and Performance Improvement of Discrete-Time Multivariable Adaptive Control Systems," Int. J. of Control, Vol. 50, No. 5, pp. 1835-1855, 1989.

1990

24. G. Tao and P. A. Ioannou, "Persistence of Excitation and Overparametrization in Model Reference Adaptive Control," IEEE Trans. on Automatic Control, Vol. 35, No. 2, pp. 254-256, February 1990.
25. K. S. Tsakalis and P. A. Ioannou, "A New Indirect Adaptive Control Scheme for Time-Varying Plants," IEEE Trans. on Automatic Control, June 1990.
26. G. Tao and P. A. Ioannou, "Necessary and Sufficient Conditions for Strictly Positive Real Matrices," Proc. of the IEE, Vol. 137, No. 5, pp. 360-366, October 1990.
27. P. A. Ioannou, "Reply on 'Comments on the Robust Stability Analysis of Adaptive Controllers Using Normalizations,' by P. Khargonekar and R. Ortega," IEEE Trans. on Automatic Control, Vol. 35, No. 10, p. 1184, October 1990.

1991

28. G. Tao and P. A. Ioannou, "Robust Adaptive Control of Plants with Unknown Order and High Frequency Gain," Int. J. Control, Vol. 53, No.3, March 1991, pp. 559-578.
29. G. Tao and P.A. Ioannou, "Robust Adaptive Control-A Modified Scheme," Int. J. Control, Vol.54, No.1, July 1991, pp.241-256.
30. F. Ahmed-Zaid, P. A. Ioannou, K. Gousman and R. Rooney, "Accommodation of Failures in the Flight Control System of the F-16 Aircraft Using Adaptive Control," IEEE Control Systems Magazine, Vol. 11, No. 1, Jan. 1991, pp. 73-78.
- 31 .A. Ioannou and A. Datta, "Robust Adaptive Control: A Unified Approach," Proceedings of the IEEE, Vol. 79, No. 12, Dec. 1991, pp. 1735-1768.
32. A. Datta and P. A. Ioannou, "Decentralized Indirect Adaptive Control of Interconnected Systems," International Journal of Adaptive Control and Signal Processing, Vol.5, pp. 259-281, 1991.

1992

32. J. Sun and P. A. Ioannou, "Robust Adaptive LQ Control Schemes," IEEE Trans. on Automatic Control, Vol. 37, No. 1, Jan. 1992 pp. 100-106.
33. M. Polycarpou and P. A. Ioannou, "Learning and Convergence Analysis of Neural-Type Structured Networks," IEEE Trans. on Neural Networks, Vol. 3, No.1, Jan. 1992, pp. 39-51.

1993

34. G. Tao and P. A. Ioannou, "Model Reference Adaptive Control for Plants with Unknown Relative Degree," IEEE Trans. on Automatic Control, Vol. 38, No. 6, June 1993, pp. 976-982.
35. T. Tsao and P.A. Ioannou "On the Stability Proof of Adaptive Schemes with Static Normalizing Signals and Parameter Projection," IEEE Trans. on Automatic Control, Vol. 38, No. 1, 1993, pp. 170-173.

36. F. Giri, P.A. Ioannou and F. Ahmed-Zaid "A Stable Indirect Adaptive Control Scheme for First-Order Plants with No Apriori Knowledge on the Parameters," IEEE Trans. on Automatic Control, Vol. 38, No. 5, May 1993, pp. 766-771.
37. M. Polycarpou and P. A. Ioannou, "On the Existence and Uniqueness of Solutions in Adaptive Control Systems," IEEE Trans. on Automatic Control, Vol. 38, No. 3, March 1993, pp. 474-479.
38. P. A. Ioannou and C. C. Chien, "Intelligent Cruise Control," IEEE Trans. on Vehicular Technology, Vol. 42, No. 4, Nov. 1993, pp. 657-672.

1994

39. A. Datta and P.A. Ioannou, "Performance Analysis and Improvement in Model Reference Adaptive Control," IEEE Trans. on Automatic Control. Vol.39, No.12, December 1994, pp. 2370-2388.
40. P. Ioannou and Z. Xu, "Throttle and Brake Control Systems for Automatic Vehicle Following," IVHS Journal, Vol.1 (4), pp.345-377, 1994

1995

41. A. Datta and P. Ioannou, "Directly Computable L2 and L-infinity Performance Bounds for Morse's Dynamic Certainty Equivalence Adaptive Controller" International Journal of Adaptive Control and Signal Processing, Vol.9, pp. 423-432, 1995
42. A. Economides, P. Ioannou and J. Sylvester "Dynamic Routing and Admission Control for Virtual Circuit Networks" Journal of Networks and Systems Management, Vol. 3, no. 2, 1995, pp.173-194
43. A. Economides, P. Ioannou and J. Sylvester "Adaptive Virtual Circuit Routing" Computer Networks and ISDN Systems 28, 1995 pp.1430-1438
1. E. Kosmatopoulos, M. Polycarpou, P. Ioannou, and M. Christodoulou, "High-Order Neural Network Structures for Identification of Dynamical Systems," IEEE Trans. on Neural Networks. Vol. 6, No.2, pp. 422-431, March 1995

1996

45. M. Polycarpou and P. Ioannou "A Robust Adaptive Nonlinear Control Design" Automatica, Vol. 32, No. 3, pp.423-427, March 1996.
46. Y. Zhang and P.A. Ioannou. "A New Class of Nonlinear Robust Adaptive Controller". International Journal of Control. Vol. 65, no. 5, pp. 745-769, 1996
47. Y. Zhang, P.A. Ioannou, and C.C. Chien. Parameter convergence of a new class of adaptive controllers. IEEE Transactions on Automatic Control. Vol. 41 pp. 1489-1493, 1996
48. Fu-Sheng Ho and P. Ioannou "Traffic Flow Modeling and Control Using Artificial Neural Networks" IEEE Control Systems Magazine Vol. 16, No.5, pp. 16-27, Oct. 1996
49. Johansen T. A. and P. Ioannou "Robust Adaptive Control of Minimum Phase Non-Linear Systems", International Journal of Adaptive Control and Signal Processing, Vol. 10, pp. 61-78, 1996

50. Raza H. and P. Ioannou " Vehicle Following Control Design for Automated Highway Systems ", IEEE Control Systems Magazine, Special Issue on Automotive Control Systems, Vol. 16, No.6, pp. 43-61, Dec. 1996

1997

- 51 C.C. Chien, Y. Zhang, and P.A. Ioannou. "Traffic Density Control for Automated Highway Systems". Automatica, Vol. 33, No. 7, pp. 1273-1285, 1997.
52. Raza H., Z. Xu, B. Yang and P. Ioannou " Modeling and Control Design for a Computer Controlled Brake System " IEEE Trans. on Control System Technology, Vol.5, No.3, pp.279-297, May 1997
53. Kosmatopoulos E., M. Christodoulou and P. Ioannou, "Dynamical Neural Networks that Ensure Exponential Identification Error Convergence", Neural Networks, Vol.10, No.2, pp.299-314, 1997

1998

- 54 Y. Zhang and P.A. Ioannou. " Robustness and Performance of a Modified Adaptive Backstepping Controller". International Journal of Adaptive Control and Signal Processing, 12, pp 247-265, 1998.
55. A. Bose and P. Ioannou, "Issues and Analysis of Mixed Semi-Automated/Manual Traffic", SAE Technical Paper #981943, *SAE Transactions-Journal of Passenger Cars*, 1998.

1999

56. Zhang Y. and P. Ioannou " Robustness of Nonlinear Control Systems with Respect to Unmodeled Dynamics" IEEE Trans. on Automatic Control, Vol. 44, No.1 pages 119-124, January, 1999
57. Huang C.H., P. Ioannou, J. Maroulas and M. Safonov " The Design of Strictly Positive Real Systems using Constant Output Feedback " IEEE Trans. On Automatic Control, Vol. 44, No. 3, March 1999, pp. 569-573
58. Y. Zhang, E. Kosmatopoulos and P.A. " Ioannou. Autonomous Intelligent Cruise Control Using Front and Back Information for Tight Vehicle Following Maneuvers". IEEE Transactions on Vehicular Technology, Vol. 48, No. 1, January 1999, pp. 319-329
59. E. Kosmatopoulos and P. Ioannou, "A Switching Adaptive Controller for Feedback Linearizable Systems", IEEE Trans. on Automatic Control, Vol. 44, No. 4, April 1999, pp. 742-751
60. C. Barnhart, P. Ioannou, G. Nemhauser and H. Richardson, "Mapping out a Transportation Plan" Institute of Operations Research and the Management Sciences, *ORMS Today*, Vol. 26, No. 1, February 1999, pp. 32-56

2000

61. H. Jula, E. Kosmatopoulos and P. Ioannou, " Collision Avoidance Analysis for Lane Changing and Merging", IEEE Transactions on Vehicular Technology, Vol. 49, No.6, November 2000 pp 2295-2308
62. Y. Zhang and P.A. Ioannou. A New Linear Adaptive Controller: Design, Analysis and Performance" IEEE Transactions on Automatic Control, Vol. 45, No. 5, May 2000, pp 883-897

63. K. Li, E. Kosmatopoulos, P. Ioannou and H. Boussalis, "Centralized, Decentralized, and Overlapping Control Designs for a Segmented Telescope", IEEE Control Systems Magazine, Vol. 20, No. 5, October 2000, pp 59-72

2001

64. A. Kanaris, E. Kosmatopoulos and P. Ioannou "Strategies and Spacing Requirements for Lane Changing and Merging in Automated Highway Systems" IEEE Transactions on Vehicular Technology, Vol. 50, No. 6, November 2001, pp 1568-1582
65. A. Bose and P. Ioannou "Evaluation of the Environmental Effects of Intelligent Cruise Control Vehicles" Journal of the Transportation Research Board, No. 1774, 2001, pp 90-98

2002

66. E. Kosmatopoulos and P. Ioannou 'Robust Switching Adaptive Control of Multi-Input Nonlinear Systems' IEEE Trans. on Automatic Control, Vol. 47, No. 4, April 2002, pp610-625
67. Chin-I Liu and Petros Ioannou 'Petri Net Modeling and Analysis of Automated Container Terminal Using Automated Guided Vehicle Systems' Journal of the Transportation Research Board, No. 1782 Marine Transportation and Port Operations, 2002, pp.73-84
68. C. I. Liu, H. Jula, and P.A. Ioannou, "Design, simulation, and evaluation of automated container terminals," IEEE Transactions on Intelligent Transportation Systems, vol. 3, no. 1, March 2002 pp.12-27.

2003

69. Bose and P. Ioannou, " Mixed Manual/Semi-Automated Traffic: A Macroscopic Analysis" Transportation Research Part C 11 pp 439-462, ELSEVIER 2003
70. A. Bose and P. Ioannou "Analysis of Traffic Flow With Mixed Manual and Semi automated Vehicles", IEEE Trans. on Intelligent Transportation Systems, Vol. 4, No. 4, Dec. 2003, pp 173-189
71. Zhang Y., B. Fidan and P. Ioannou "Backstepping Control of Linear Time-Varying Systems with Known and Unknown Parameters" IEEE Trans. On Automatic Control, Vol. 48, No.11, Nov. 2003, pp1908-1926
72. Xu H. and P. Ioannou "Robust Adaptive Control for a Class of MIMO Nonlinear Systems with Guaranteed Error Bounds" IEEE Trans. On Automatic Control, Vol. 48, no. 5, May 2003, pp728-743
73. Petros Ioannou, Elias Kosmatopoulos and Alvin Despain 'Position Error Signal estimation at High sampling Rates Using Data and Servo Sector Measurements' IEEE Transactions on Control Systems Technology, Vol. 11, No. 3, May 2003, pp 325-334

2004

74. I. Liu, H. Jula, P.A. Ioannou, ' Automated Guided Vehicle System for Two Container Yard Layouts' Transportation Research Part C: Emerging Technologies, no.12, pp.349-368, 2004.
75. K. Li and P. Ioannou, " Modeling of Traffic Flow of Automated Vehicles" IEEE Transactions on Intelligent Transportation Systems, Vol. 5, No. 2, June 2004, pp 99-114

76. Haojian Xu and Petros A. Ioannou "Robust adaptive control of linearizable nonlinear single input systems" *Automatica* 40, 2004, pp. 1905-1911
77. H. Xu, M. Mirmirani, and P. A. Ioannou, "Adaptive Sliding Mode Control Design for a Hypersonic Flight Vehicle," *AIAA Journal of Guidance, Control, and Dynamics*, Vol 27, pp 829-838, September-October 2004.

2005

78. Pitsillides, P. Ioannou, M. Lestas, L. Rossides, "Integrated Dynamic Congestion Controller for a Differentiated-Services Framework", *IEEE/ACM Transactions of Networking*, Volume 13, Issue 1, Feb. 2005 Page(s):94 – 107
79. P. Ioannou and M. Stefanovic "Evaluation of the ACC Vehicles in Mixed Traffic: Lane Change Effects and Sensitivity Analysis" *IEEE Transactions on Intelligent Transportation Systems* Vol. 6, No.1 March 2005, pp 79-90
80. H. Xu, P. A. Ioannou and M. Mirmirani, "Decentralized-like adaptive control for a class of interconnected nonlinear systems", *International Journal of Control*, Vol.78, No. 17, Nov. 2005, pp.1359-1378
81. B. Fidan, Y. Zhang, and P.A. Ioannou, "Adaptive control of a class of slowly time varying systems with modeling uncertainties", *IEEE Trans. on Automatic Control*, Vol. 50, no. 6, pp. 915-920, June 2005.
82. H. Jula, M. Dessouky, P. Ioannou, and A. Chassiakos, "Container movement by trucks in metropolitan networks: modeling and optimization," *Transportation Research – Part E*, 41, 235-259, 2005.

2006

83. H. Jula, A. Chassiakos, and P. Ioannou, "Port dynamic empty container reuse," *Transportation Research – Part E*, Vol. 42, No. 1, pp. 43-60, Jan. 2006
84. J. Zhang, P.A. Ioannou and A. Chassiakos, "Automated Container Transport System between Inland Port and Terminals," *ACM Transactions on Modeling and Computer Simulation*, vol. 16, no. 12, pp. 95-118, 2006.
85. J. Zhang and P.A. Ioannou, "Longitudinal Control of Heavy Trucks in Mixed Traffic: Environmental and Fuel Economy Considerations," *IEEE Transactions on Intelligent Transportation Systems*, vol. 7, no. 1, pp. 92-104, 2006.
86. H. Jula, M. Dessouky, and P. Ioannou, "Truck route planning in non-stationary stochastic networks with Time Windows at Customer Locations," *IEEE Transactions on Intelligent Transportation Systems*, Vol. 7, No. 1, pp. 51-62, March 2006.

2007

87. P.A. Ioannou, H. Xu, and B. Fidan, "Identification and high bandwidth control of hard disk drive servo systems based on sampled data measurements," *IEEE Trans. on Control Systems Technology*, vol. 15, no. 6, pp. 1089-1095, November 2007

88. Lestas M., Ioannou P., Pitsillides A. and Hadjipollas G., "Adaptive Congestion Protocol: A New Congestion Control Protocol with Learning Capability", *Computer Networks*, Vol. 51, no13, September 2007, pp. 3773-3798.
89. Papageorgiou, G., Ioannou, P., Damianou, P., Aphames, T., Pitsillides, A., A Computer Simulation Scenario Analysis Approach as a Decision Support Tool for Transportation Systems Planning, *Urban Transport 2007*, Witpress, ISBN978-1-84564-087-3

2008

90. Hwan Chang, Hossein Jula, Anastasios Chassiakos and Petros Ioannou, "A heuristic solution for the empty container substitution problem," *Transportation Research Part E*, Vol. 44, no. 2, March 2008, pp. 203-216.
91. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "Adaptive LQ Control with Anti-windup Augmentation to Optimize UAV Performance in Autonomous Soaring Applications," *IEEE Transactions on Control Systems Technology*, vol. 16, no. 4, pp. 691-707, July 2008.
92. Papageorgiou, G., Ioannou, P., Damianou, P., Aphames, T., Pitsillides, A., Modelling & Analysis of Traffic and Impact of Dedicated Bus Lanes along Strovolos Avenue, *IPSIPETIS*, No. 17, pp. 31-35, February 2008.
93. H. Jula, M. Dessouky, and P. Ioannou, "Real-time estimation of travel times along the arcs and arrival times at the nodes of dynamic stochastic networks," *IEEE Transactions on Intelligent Transportation Systems*, Vol. 9, No. 1, pp.97-110, March 2008

2009

94. Levin, J., Ioannou, P., "Integrated adaptive mode suppression and disturbance rejection scheme with application to disk drives," *IEEE Trans. on Control System Technology*, Vol. 17, No 3, May 2009 pp620-633.
95. Levin, J., Perez Arancibia, N. O., Ioannou, P., Tsao, T.-C., "A neural-network-based adaptive disturbance rejection and its application to the control of hard disk drives," *IEEE Trans. on Control Magnetism*, Vol.45, No.5, May 2009 pp 2140-2151
96. Papageorgiou G. , Pantelis Damianou, Andreas Pitsillides, Thrasos Aphamis, Demetris Charalambous, Petros Ioannou, 'Modelling and Simulation of Transportation Systems: a Scenario Planning Approach', *AUTOMATIKA: Journal for Control, Measurement, Electronics, Computing and Communications*, Vol.50 No.1-2 April 2009, Pages 39 - 50.
97. Mihalis G. Markakis, Georgios D. Mitsis, George P. Papavassilopoulos, Petros A. Ioannou, Vasilis Z. Marmarelis, 'A switching control strategy for the attenuation of blood glucose disturbances' *Optimal Control Applications and Methods*, John Wiley & Sons, July 2009

2010

98. M. Kuipers and P. A. Ioannou, 'Multiple Model Adaptive Control With Mixing', *IEEE Transactions on Automatic Control* vol. 55, no. 8, pp.1822-1836, August 2010.

2011

99. Lestas M., Pitsillides A., Ioannou P. and Hadjipollas G., "A New Estimation Scheme for the Effective Number of Users in Internet Congestion Control", *IEEE/ACM Transactions on Networking*, Vol. 19, no. 5, October 2011, pp. 1499-1513,
100. Y. Wang and P. Ioannou, 'New Model for Variable Speed Limits', *Transportation Research Record, Journal of the Transportation Research Board*, no. 2249, Traffic Flow Theory, Simulation Modeling, 2011, pp. 38-44

Accepted Journal Papers

101. Baldi S., Ioannou P. A., & Mosca E. 'Multiple Model Adaptive Control with Mixing: the Discrete-time Case', *IEEE Trans. on Automatic Control*, to appear April 2012
102. Baldi S., P. Ioannou and E. Kosmatopoulos, 'Adaptive Mixing Control with Multiple Estimators' *International Journal of Adaptive Control and Signal Processing*.

Under Review

103. Nazli E. Kahveci, Petros A. Ioannou "Adaptive Steering Control for Uncertain Cargo Ship Dynamics and Stability Analysis," *Automatica*, under review

Refereed Conference Papers

1981

1. P. A. Ioannou and P. V. Kokotovic, "Error Bounds for Model-Plant-Mismatch in Identifiers and Adaptive Observers," *JACC*, Charlottesville, VA, June 17-19, 1981.
30. P. V. Kokotovic and P. A. Ioannou, "Robustness Redesign of Continuous-Time Adaptive Schemes," *The 20th IEEE Conf. on Decision and Control*, San Diego, December 1981.

1982

3. C. R. Johnson, Jr. and P. A. Ioannou, "Reduced-Order Adaptive Parameter Identification," *The 6th IFAC Symposium on Identification and System Parameter Estimation*, Washington, DC, June 7-11, 1982.

1983

4. P. A. Ioannou and P. V. Kokotovic, "Decentralized Adaptive Control in the Presence of Multiparameter Singular Perturbations and Bounded Disturbances," *American Control Conference*, San Francisco, CA, June 1983, pp. 553-558.
5. P. A. Ioannou and Ph. Opdenacker, "Design of Adaptive Controllers for a Continuous Anaerobic Fermentation Process," *21st Annual Allerton Conference on Communication, Control, and Computing*, October 1983, pp. 703-712.
6. P. A. Ioannou, "Design of Decentralized Adaptive Controllers," *The 22nd Conference on Decision and Control*, December 1983, pp. 205-210.

1984

7. P. A. Ioannou, "Adaptive Control of Large Scale Systems with Reduced Models," First International Workshop on the Real Time Control of Large Scale Systems, Patras, Greece, July 1984, pp. 386-398.

1985

8. P. A. Ioannou, "Robustness of the Positive Real Lemma and its Application to Adaptive Control," Proc. of IEE Int'l. Conf. Control '85, Cambridge, England, July 1985, pp. 625-631.
9. P. A. Ioannou, "Robust Adaptive Controller with Zero Residual Tracking Errors," Proc. of 24th IEEE Conf. on Decision and Control, Fort Lauderdale Florida, December 1985, pp. 135-140.

1986

10. K. S. Tsakalis and P. A. Ioannou, "Adaptive Control of Time Varying Plants," Proc. of 2nd IFAC Workshop on Adaptive Systems in Control and Signal Processing, Lund, Sweden, July 1-3, 1986, pp. 233-238.
11. P. A. Ioannou and K. S. Tsakalis, "A Robust Discrete-Time Adaptive Controller," Proc. 25th IEEE Conf. on Decision and Control, Athens, Greece, December 1986.
12. K. M. Sobel, H. P. Lee and P. A. Ioannou, "Application of Robust Direct Adaptive Control to the Longitudinal Dynamics of a Fighter Aircraft," Proc. 25th IEEE Conf. on Decision and Control, Athens, Greece, December 1986.
13. J. Sun, P. A. Ioannou, E. Falagas and H. Woo, "Robust Adaptive Control of a Large Flexible Structure," Proc. 2nd IASTED International Conf. on Applied Control and Identification, Los Angeles, CA, December 1986.

1987

14. P. A. Ioannou, "Robust Adaptive Control Algorithms With and Without Persistence of Excitation," Proc. 10th World Congress on Automatic Control, Vol. 10, pp. 46-52, July 1987.
15. K. S. Tsakalis and P. A. Ioannou, "On the Model Reference Adaptive Control of Time-Varying Plants," The 26th IEEE Conference on Decision and Control, Los Angeles, CA, December 9-11, 1987.

1988

16. G. Tao and P. A. Ioannou, "Robust Model Reference Adaptive Control for Multivariable Plants," American Control Conference, Atlanta, Georgia, pp. 749-753, June 1988.
17. A. Economides, P. A. Ioannou and J. A. Silvester, "Decentralized Adaptive Routing for Virtual Circuit Networks Using Stochastic Learning Automata," Proc. of IEEE Infocom'88, New Orleans, March 1988.
18. K. S. Tsakalis and P. A. Ioannou, "A New Indirect Adaptive Control Scheme for Time-Varying Plants," Proc. 27th IEEE Conf. on Decision and Control, Austin, TX, pp. 2419-2425, December 1988.
19. G. Tao and P. A. Ioannou, "Persistency of Excitation and Overparametrization in Model Reference Adaptive Control," Proc. 27th IEEE Conf. on Decision and Control, Austin, TX, pp. 1607-1611, December 1988.

20. A. Chassiakos, P. A. Ioannou, M. Safonov, M. Nugent and D. Moore, "Adaptive Roll Control of a Dynamic Wind Tunnel Model," Proc. of AIAA on Atmospheric Flight Mechanics, pp. 385-393, August 1988.

1989

21. G. Tao and P. A. Ioannou, "Model Reference Adaptive Control for Plants with Unknown Relative Degree," Proc. 1989 American Control Conference, Pittsburgh, PA, June 1989, pp. 2297-2302.
22. G. Tao and P. A. Ioannou, "A MRAC for Multivariable Plants with Zero Residual Tracking Error," Proc. 28th IEEE Conf. on Decision and Control, December 1989, Tampa, FL, pp. 1597-1600.
23. A. Economides, P. A. Ioannou and J. A. Silvester, "Adaptive Routing and Congestion Control for Window Flow Controlled Virtual Circuit Networks," Proc. 27th Annual Allerton Conf. on Communications, Control and Computing, Urbana-Champaign, IL, September 1989.
24. P. A. Ioannou, K. Gousman and B. Rooney, "Surface Failure Detection and Evaluation of Control Law for Reconfiguration of Flight Control Systems," Proc. AIAA Guidance and Navigation Control Conference, Boston, MA, August 1989, pp. 733-740.

1990

25. A. Datta and P. A. Ioannou, "Decentralized Indirect Adaptive Control of Interconnected Systems," Proc. 1990 American Control Conference, San Diego, CA, May 1990, pp. 55-60.
26. F. Ahmed-Zaid, P. A. Ioannou, K. Gousman and B. Rooney, "Adaptive Control and Accommodation to Failures in the Flight Control System of the F-16 Aircraft," Proc. 1990 American Control Conference, San Diego, CA, May 1990, pp. 764-769.
27. A. Datta and P. A. Ioannou, "Robustness Analysis of Commonly Used Adaptive Control Structures," Proc. 29th IEEE Conf. on Decision and Control, Honolulu, HI, December 5-7, 1990, pp. 3220-3225.

1991

28. M. Polycarpou and P. A. Ioannou, "A Neural-Type Parallel Algorithm for Fast Matrix Inversion," Proc. 1991 International Parallel Processing Symposium, Anaheim, CA, April-May 1991.
29. A. Datta and P. A. Ioannou, "Performance Improvement versus Robust Stability in Model Reference Adaptive Control", Proc. 30th IEEE Conf. on Decision and Control, December 1991, Brighton, England.
30. Giri F., P. A. Ioannou and F. Ahmed-Zaid, "Model Reference Adaptive Control for First-Order Plants with No Prior Knowledge on the High Frequency Gain." Proc. 30th IEEE Conf. on Decision and Control, December 1991, Brighton, England.

1992

31. F. Zaid, P. A. Ioannou, and F. Giri, "A Stable Indirect Adaptive Control of Continuous-Time Systems with no Apriori Knowledge on the Parameters," 4th IFAC International Symposium on Adaptive Systems in Control and Signal Processing, July 1-3, 1992, Grenoble, France.

32. M. Polycarpou and P. A. Ioannou, "Modeling, Identification, and Stable Adaptive Control of Continuous-Time Nonlinear Dynamical Systems Using Neural Networks", Proc. 1992, American Control Conference, Chicago, IL, June 1992, pp. 36-41.
33. M. Demetriou, I. G. Rosen, P. A. Ioannou, "Adaptive Parameter Estimation for a Class of Distributed Parameter Systems with Persistence of Excitation", Proc. of the 31st IEEE Conf. on Decision and Control, Dec. 1992, pp. 1742-1744.
34. M. Polycarpou and P. A. Ioannou, "Neural Networks and On-line Approximators for Adaptive Control," Proc. of the 7th Yale Workshop on Adaptive and Learning Systems, May 1992, pp. 93-98.
35. F. Ahmed-Zaid, P. A. Ioannou, M. Polycarpou, and H. Youssef, "Identification and Control of Aircraft Dynamics Using Radial Basis Function Neural Networks," Proc. of the AIAA Guidance, Navigation Control Conference, Hilton Head, SC, Aug.10-12, 1992.

1993

36. M. Polycarpou and P. Ioannou, "A Robust Adaptive Nonlinear Control Design," Proc. of the American Control Conf., San Francisco, CA, June 1993.
37. M. Demetriou and P. A. Ioannou, "Adaptive Parameter Estimation of Parabolic Distributed Parameter Systems with Unknown Input Operator," Proc. of the International Conf. on Computer Applications to Engineering Systems, Nicosia, Cyprus, July 14-16, 1993.
38. E. Kosmatopoulos, M. Christodoulou and P. Ioannou, "Learning Laws with Exponential Error Convergence for Recurrent Neural Networks," Proc. of the 32nd Conference on Decision and Control, San Antonio, Texas, Dec. 1993.

1994

39. C.C. Chien, Y. Zhang, A. Stotsky, and P.A. Ioannou. "Roadway Traffic Controller Design for Automated Highway Systems" In Proc. IEEE Conference on Decision and Control, Orlando, FL, December 1994. pp. 2425-2430.
40. Y. Zhang, P.A. Ioannou, and C.C. Chien. "Parameter Convergence of a Class of Adaptive Controllers". In Proc. American Control Conference, Baltimore, MD, June 1994 pp.1248-1252

1995

41. Y. Zhang and P.A. Ioannou. "Stability and Performance of Nonlinear Robust Adaptive Control". In Proc. IEEE Conference on Decision and Control, New Orleans, LA, December 1995 pp. 3941-3946.
42. Y. Zhang and P.A. Ioannou. "Comparison of a Nonlinear Adaptive Controller with Certainty-Equivalence Type Adaptive Controllers". In Proc. IEEE Conference on Decision and Control, New Orleans, LA, December 1995 pp.3444-3445.
43. Y. Zhang and P.A. Ioannou. "A Robust Modification of a New Class of Adaptive Controllers." In Proc. American Control Conference, Seattle, WA, June 1995, pp.2510-2514
44. C.C. Chien, Y. Zhang, A. Stotsky, S.R. Dharmasena, and P.A. Ioannou. "Macroscopic Roadway Traffic Controller Design". In Third IEEE Mediterranean Symposium on New Directions in Control and Automation, Limassol, Cyprus, July 1995 pp.228-236.

1996

45. Y. Zhang and P.A. Ioannou. "Linear Robust Adaptive Control Design Using a Nonlinear Approach. IFAC World Congress, San Francisco, CA, June 1996.
46. Y. Zhang and P. A. Ioannou. " Nonlinear Control Design for Linear Time Varying Systems", In Proc. IEEE Conf. on Decision and Control, pp. 3353-3358, Kobe, Japan, Dec. 1996
47. Y. Zhang and P. A. Ioannou. " Adaptive Nonlinear Control Design for Linear Time Varying Systems", In Proc. IEEE Conf. on Decision and Control, pp. 837- 842, Kobe, Japan, Dec. 1996
48. Y. Zhang and P. A. Ioannou. " Robustness of Nonlinear Control Systems with Respect to Unmodeled Dynamics ", In Proc. IEEE Conf. on Decision and Control, pp. 837- 842, Kobe, Japan, Dec. 1996
49. F. Ho and P.A. Ioannou. "Traffic Flow Modeling and Control Using Artificial Neural Networks". IFAC World Congress, San Francisco, CA, June 1996.
50. Raza H., Z. Xu, B. Yang and P. Ioannou " Modeling and Control Design for a Computer Controlled Brake System " 11th IEEE International Symposium on Intelligent Control, Dearborn, MI, 1996.

1997

51. Raza H. and P. Ioannou, "Macroscopic Modeling of Automated Highway Systems" 36th IEEE Conference on Decision and Control, San Diego, California, Dec. 10-12, 1997, pp.4764-4770
52. A. Kanaris, P. Ioannou and F.S. Ho, "Spacing and Capacity Evaluation for Different AHS Concepts", 1997 American Control Conference, Albuquerque, NM, June 4-6, 1997
53. Y. Zhang and P. Ioannou, "Robustness of the Adaptive Backstepping Controllers for Linear Systems", 1997 American Control Conference, Albuquerque, NM, June 4-6, 1997
54. Raza H. and P. Ioannou, "Macroscopic Traffic Flow Modeling of Automated Highway Systems" The 5th IEEE Mediterranean Conference on Control and Systems, Paphos, Cyprus, July 21-23, 1997
55. E. Kosmatopoulos, A. Chassiakos, H. Boussalis. and P. Ioannou, "Robust Neural Stabilizers for Unknown Systems" 36th IEEE Conference on Decision and Control, San Diego, California, Dec. 10-12, 1997, pp. 1579-1585
56. E. Kosmatopoulos, H. Boussalis. and P. Ioannou, "Switching Adaptive Control for Nonlinear Systems" 36th IEEE Conference on Decision and Control, San Diego, California, Dec. 10-12, 1997, pp. 4145-4151
57. Raza H. and P. Ioannou, "Vehicle Following Control Design for Automated Highway Systems" IEEE 47th Vehicular Technology Conference, Phoenix Arizona, 1997

1998

58. A. Bose and P. Ioannou, "Issues and Analysis of Mixed Semi-Automated/Manual Traffic" Future Transportation Technology Conference and Exposition, Costa Mesa, California, August 11-13, 1998, SAE Technical Paper Series No. 981943
59. A. Bose and P. Ioannou, "Evaluation of Mixed Semi-Automated/Manual Traffic" IEEE International Conference on Control Applications, Trieste, Italy, Sept. 1-4, 1998

60. E. Kosmatopoulos, A. Chassiakos, H. Boussalis, M. Mirmirani and P. Ioannou, "Robust, Decentralized, Adaptive and Neural Control of a Large Segmented Reflector" 37th IEEE Conference on Decision and Control, Florida, Dec. 1998
61. E. Kosmatopoulos, A. Chassiakos, and P. Ioannou, "Robust Neural Stabilizers for Unknown Systems" 37th IEEE Conference on Decision and Control, Florida, Dec. 1998
62. E. Kosmatopoulos and P. Ioannou, "Robust Switching Adaptive Control using Control Lyapunov Functions" 37th IEEE Conference on Decision and Control, Florida, Dec. 1998
63. K. Li, E. Kosmatopoulos, P. Ioannou, H. Boussalis, M. Mirmirani and A. Chassiakos "Control Techniques for a Large Segmented Reflector," Proceedings of the 37th IEEE Conference on Decision and Control, 1998, pp. 813-818
64. A. Bose and P. Ioannou, "Evaluation of Mixed Semi-Automated/Manual Traffic", Proceedings of the 1998 IEEE International Conference on Control Applications, pp. 868-872, vol. 2, 1998.

1999

65. A. Bose and P. Ioannou, "Analysis of traffic flow with mixed manual and semi-automated vehicles", Proceedings of the 1999 American Control Conference, pp. 2173-2177, San Diego, June 1999.
66. K. Li, E. Kosmatopoulos, P. Ioannou and H. Boussalis "Centralized, Decentralized and Overlapping Approaches for the Control of a large Segmented Telescope," Proceedings of the 1999 IEEE International Symposium on Intelligent Control Intelligent Systems and Semiotics, pp. 173-178.

2000

67. H. Jula and P. Ioannou "Container Terminals Using Automated Shuttles Driven by Linear Motors," 9th IFAC Symposium on Control in Transportation Systems 2000.
68. A. Bose and P. Ioannou, "Shock Waves in Mixed Traffic Flow", 9th IFAC Symposium on Control in Transportation Systems 2000.
69. A. Bose and P. Ioannou "Environmental Evaluation of Intelligent Cruise Control (ICC) Vehicles", Proc. of the IEEE Conference on Intelligent Transportation Systems, Dearborn, Oct. 1-3 , 2000, pp 352-357
70. C. Liu, H. Jula, K. Vukadinovic and P.A. Ioannou, "Comparing Different Technologies for Container Movement in Marine Container Terminals" Proc. of the IEEE Conference on Intelligent Transportation Systems, Dearborn, Oct. 1-3 , 2000 pp. 488-493

2001

71. Haojian Xu, Maj Mirmirani, and Petros Ioannou, "Robust Adaptive Sliding Control of Linearizable Systems" American Control Conference, June 2001, Arlington, Virginia, June 25-27, 2001
72. Haojian Xu, Pierre Leung, Maj Mirmirani, Helen Boussalis and Petros Ioannou "Design of a Controller for Hypersonic Flight Vehicle Using Sliding Mode Control Method" AAS/AIAA Space Flight Mechanics Meeting, Santa Barbara, California, February 11-15, 2001

73. Pitsillides A., P.A. Ioannou and Loukas Rossides “Congestion Control for Differentiated-Services using Non-linear Control Theory”, Proceedings of the Sixth IEEE Symposium on Computers & Communications, ISCC 2001, July 3-5, 2001, Hammamet, Tynisia, pp. 726-733
74. Liu C. I. , Jula H. and P. A Ioannou ‘ A Simulation Approach for Performance Evaluation of Proposed Automated Container Terminals” Proc. of the 2001 Intelligent Transportation Systems Conference, Oakland, CA August 25-29, 2001, pp 563-568
75. Haojian Xu, P. A. Ioannou, M. Mirmirani, and H. Boussalis, ‘Robust adaptive sliding control of linearizable systems’, Proceedings of the *American Control Conference*, Arlington, Virginia, June 2001, pp. 4351-4356.

2002

76. Chin-I Liu, and Petros A. Ioannou ‘A Petri Net modeling and Analysis of Automated Container Terminal Using AGVS’ Transportation Research Board Annual Meeting, January 2002 (CD-ROM) pp 1-30
77. Chin-I Liu, and Petros A. Ioannou ‘A Petri Net Based Approach For AGV Dispatch Scheduling and Fleet Size Determination’ IFAC 15th Triennial World Congress, Barcelona, Spain, July 2002, (CD-ROM) pp 1-6
78. Petros Ioannou, Elias Kosmatopoulos and Alvin Despain ‘Position Error Signal estimation at High sampling Rates Using Data and Servo Sector Measurements’ 41st IEEE Conference on decision and Control Proceedings, Las Vegas, Nevada, USA Dec. 10-13, 2002, pp.67-72
79. Haojian Xu and Petros Ioannou ‘Robust Adaptive Control of Linearizable Nonlinear Single Input Systems’ IFAC 15th Triennial World Congress, Barcelona, Spain, July 2002, (CD-ROM) pp 1-6
80. Haojian Xu and Petros Ioannou ‘Adaptive Control for a Class of MIMO Nonlinear Systems’ 41st IEEE Conference on decision and Control Proceedings, Las Vegas, Nevada, USA Dec. 10-13, 2002, pp.3049-3054
81. Baris Fidan, Youping Zhang and Petros Ioannou ‘A New Robust Adaptive Control Scheme for Linear Time Varying Systems’ 41st IEEE Conference on decision and Control Proceedings, Las Vegas, Nevada, USA Dec. 10-13, 2002, pp.3061-3066
82. Baris Fidan, Elias Kosmatopoulos and Petros Ioannou ‘A Switching Controller for a Multivariable LTI Systems with Known and Unknown Parameters’ 41st IEEE Conference on decision and Control Proceedings, Las Vegas, Nevada, USA Dec. 10-13, 2002, pp.3688-3693
83. Arnab Bose and Petros Ioannou ‘Adaptive Cruise Control (ACC) for Passenger Vehicles and Trucks: Performance and Environmental Impact’ International Congress on Freight Transport Automation and Multimodality, Delft, May 23-24, 2002, pp. 1-37
84. Chin-I Liu and Petros Ioannou ‘A Comparison of Different AGV Dispatching Rules in an Automated Container Terminal’ The IEEE 5th International Conference on Intelligent Transportation Systems, Sept. 3-6, 2002, Singapore.

2003

85. P. A. Ioannou, H. Xu, and B. Fidan, "Servo control design for a hard disk drive based on estimated head position at high sampling rates", Proceedings of the 2003 American Control Conference, Vol.1, June 4-6, 2003, pp.731 – 736
86. Haojian Xu, P. A. Ioannou and M. Mirmirani, 'Decentralized-like adaptive control for a class of MIMO nonlinear systems', 4th IFAC Workshop on Robust Control Design, Milan, Italy, June 2003.
87. P. A. Ioannou and H. Xu, "Identification of the continuous-time transfer function of a system from sampled data measurements with application to hard disk drives", IEEE 11th Mediterranean Conference on Control and Automation MED'03, Rhodes, Greece, June 18-20, 2003.
88. H. Xu, M. Mirmirani, and P. A. Ioannou, "Robust neural adaptive control of a hypersonic aircraft", AIAA Guidance, Navigation, and Control Conference, Austin, Texas, August 2003.
89. H. Jula, M. Dessouky, P. Ioannou, and R. Hall, "Full-truck-load assignment and route planning in deterministic and stochastic environments," NSF Design, Service, Manufacture and Industrial Innovation Research Conference, Birmingham, Al., Jan 2003.
90. Andreas Pitsillides, Petros Ioannou, Marios Lestas, "Estimation of the Number of Virtual Connections in a Rate Based Flow Control Problem" Australian Telecommunications, Networks and Applications Conference (ATNAC), 2003.
91. A. Abdullah and P. Ioannou "Real-Time Control of a Segmented Telescope Test-Bed" Proc. Of the 42nd IEEE Conference on Decision and Control, Maui, Hawaii, Dec. 2003 pp 762-767
92. A. Abdullah and P. Ioannou "Decentralized Reconfigurable Control for Large-Scale Systems with Application to a Segmented Telescope Test-Bed" Proc. Of the 42nd IEEE Conference on Decision and Control, Maui, Hawaii, Dec. 2003 pp 768-773
- 2004**
93. B. Fidan, M. Mirmirani, and P. A. Ioannou, "Air-Breathing Hypersonic Flight Control," 16th IFAC Symposium on Automatic Control in Aerospace, vol. 1, pp. 571-576, June 2004.
94. J. Zhang, P. Ioannou and A. Chassiakos, "Automated Container Transport System Between Inland Port and Terminals", 83rd TRB Annual Meeting, Washington, D.C., January 2004.
95. A. Abdullah and P. Ioannou "Control Design for F-16 Longitudinal Motion" 16th IFAC Symposium on Automatic Control in Aerospace, June 2004.
96. Marios Lestas, Petros Ioannou, Andreas Pitsillides, "A Congestion Control Algorithm for Max-Min Resource Allocation and Bounded Queue Sizes", American Control Conference, 2004
97. Lestas M. , Ioannou P., Pitsillides A. "A congestion control algorithm for max-min resource allocation and bounded queue sizes" Proceedings of 2004 ACC, vol 2 July 2004, Boston, pp 1683-1688
98. Lestas M. , Ioannou P. Pitsillides A. "On a hybrid model for max-min congestion controllers" Proceedings of the 43rd Conf. Decision and Control, December 2004, Bahamas, pp 543-548

99. J. Zhang, P. Ioannou, "Longitudinal Control of Heavy Trucks: Environmental and Fuel Economy Considerations", 7th IEEE Conference on Intelligent Transportation Systems, Washington DC, 2004.

100. J. Zhang, P. Ioannou and A. Chassiakos, "Automated Container Transport System Between Inland Port and Terminals", 83rd TRB Annual meeting, Washington DC, 2004

2005

101. J. Zhang, P. Ioannou, "Intelligent Cruise Control Design with Disturbance Rejection", IFAC 16th World Congress in Prague, 2005

102. J. Zhang and P.A. Ioannou, "Adaptive Vehicle Following Control System with Variable Time Headways," Proceedings of the 44th IEEE Conference on Decision and Control and European Control Conference, Seville, Spain Dec. 12-15, 2005, pp. 3880-3885.

103. J. Zhang, A. Boitor and P.A. Ioannou, "Design and Evaluation of a Roadway Controller for Freeway Traffic," Proceedings of the 8th IEEE Conference on Intelligent Transportation Systems, pp. 543-548, Vienna, Austria, September 2005

104. P.A. Ioannou and J. Zhang, "Roadway/Vehicle Integrated Transportation System," Workshop on Modeling and Control of Complex Systems, Ayia Napa, Cyprus, June 30 - July 1, 2005

105. Hwan Chang, Hossein Jula, Anastasos Chassiakos, and Petros Ioannou, "Empty Containers Interchange in the Los Angeles/Long Beach Port Area", INFORMS Annual Meeting 2005, San Francisco, CA, Nov 13-16, 2005.

106. Hwan Chang, Hossein Jula, Anastasos Chassiakos, and Petros Ioannou, "Empty Container Reuse in the Los Angeles/Long Beach Port Area", NUFC 2006, Long Beach, CA, Feb 1-3, 2006.

2006

107. J. Zhang and P.A. Ioannou, "Non-Identifier Based Adaptive Control with Guaranteed Stability," the 25th American Control Conference, Minneapolis, Minnesota, June 14-16, 2006.

108. J. Zhang and P.A. Ioannou, "A Simple Efficient Roadway Controller for Freeway Traffic," the 25th American Control Conference, Minneapolis, Minnesota, June 14-16, 2006

109. J. Zhang and P.A. Ioannou, "Safe Adaptive Control for Performance Improvement," the 45th IEEE Conference on Decision and Control, San Diego, California, Dec 13-15, 2006

110. Jianlong Zhang, Hwan Chang, Petros Ioannou, "A Simple Roadway Control System for Freeway Traffic", 2006 American Control Conference, Minneapolis, Minnesota, June 14-16, 2006

111. Ying Huo, Petros Ioannou, and Majdedin Mirmirani, 'An intelligent Flight Control Design with Guaranteed Flying Quality' 44th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, Jan. 9-12, 2006

112. Hwan Chang, Hossein Jula, Anastassios Chassiakos, and Petros Ioannou, "Empty Container Reuse in the Los Angeles/Long Beach Port Area," NUFC 2006, Long Beach, CA, Feb 1-3, 2006.

113. H. Chang, H. Jula, A. Chassiakos, and P. Ioannou, "Handling Empty Containers in the Los Angeles/Long Beach Port Area," National Urban Freight Conference, Long Beach, CA, Feb. 2006

114. Y. Huo, M. Mirmirani, P. Ioannou, and M. Kuipers, 'Altitude and Velocity Tracking Control for an Airbreathing Hypersonic Cruise Vehicle', AIAA-2006-6695, AIAA Guidance, Navigation, and Control Conference and Exhibit, Keystone, Colorado, Aug. 21-24, 2006.
115. P. Ioannou 'Intelligent Vehicles: Closing the Loop with the Highway' 11th IFAC Symposium in Control of Transportation Systems, Delft, Netherlands, Aug. 28-Sept. 1st, 2006
116. Chassiakos, H. Chang, P. Ioannou, H. Jula, and F. Murgolol, "Evaluation of truck movement concepts on terminal efficiency and traffic flow: a simulation approach." In Proceedings of the 2nd National Urban Freight Conference, Long Beach, CA, Dec. 2007.
117. Hwan Chang, Yun Wang, Jianlong Zhang, and Petros A. Ioannou, "An Integrated Roadway Controller and its Evaluation by Microscopic Simulator VISSIM," Accepted in European Control Conference 2007, Kos, Greece, July 2-5, 2007
118. Wang Y. and P. Ioannou, 'Real-time Parallel Parameter Estimators for a Second-order Macroscopic Traffic Flow Model', in Proceedings of the 9th IEEE Intelligent Transportation Systems Conference, Toronto, Canada, Year 2006, pp. 1466-1470.
119. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "Optimal Static Soaring of UAVs Using Vehicle Routing with Time Windows," 45th AIAA Aerospace Sciences Meeting and Exhibit, Reno, NV, Jan. 2007
120. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "A Robust Adaptive Control Design for Gliders Subject to Actuator Saturation Nonlinearities," 2007 American Control Conference, New York, July 2007
121. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "A Stochastic Approach to Optimal Soaring Problem and Robust Adaptive LQG Control," AIAA Infotech@Aerospace 2007 Conference and Exhibit, Rohnert Park, CA, May 2007
122. Y. Huo, P. Ioannou, and M. Mirmirani, 'An Intelligent Flight Control Design with Guaranteed Flying Quality', AIAA-2006-1477, 44th AIAA Aerospace Sciences Meeting and Exhibit, Reno, Nevada, Jan. 9-12, 2006
123. Y. Huo, M. Mirmirani, P. Ioannou, and M. Kuipers, "Altitude and velocity tracking control for an airbreathing hypersonic cruise vehicle," in Proc. AIAA Guidance, Navigation, and Control Conf., AIAA Paper 2006-6695, 2006.
124. B. Fidan, M. Kuipers, P. Ioannou, and M. Mirmirani, "Longitudinal Motion Control of Air-Breathing Hypersonic Vehicles Based on Time-Varying Models," in Proc. 14th AIAA/AHI Space Planes and Hypersonic Systems and Technologies Conference, Canberra, Australia, 2006.

2007

125. Lestas M., Pitsillides A., Ioannou P. and Hadjipollas G., 'Queue Length Based Internet Congestion Control', IEEE International Conference on Networking, Sensing and Control (ICNSC2007), will appear April 2007.

126. Chassiakos, H. Chang, P. Ioannou, H. Jula, and F. Murgolol, "Evaluation of truck movement concepts on terminal efficiency and traffic flow: a simulation approach." In Proceedings of the 2nd National Urban Freight Conference, Long Beach, CA, Dec. 2007.
127. Hwan Chang, Yun Wang, Jianlong Zhang, and Petros A. Ioannou, "An Integrated Roadway Controller and its Evaluation by Microscopic Simulator VISSIM," Proceeding of the 2007 European Control Conference 2007, Kos, Greece, July 2-5, 2007.
128. Hwan Chang, Yun Wang, and Petros A. Ioannou, "The Use of Microscopic Traffic Simulation Model for Traffic Control Systems," Proceedings of the 2007 International Symposium on Information Technology Convergence, JeonJu, Koera, Nov. 23-24, 2007.
129. Anastasios Chassiakos, Hwan Chang, Petros Ioannou, Hossein Jula, and Frank Murgolo, "Evaluation of Truck Movement Concepts on Terminal Efficiency and Traffic Flow: A Simulation Approach," Proceedings of the 2007 National Urban Freight Conference, Long Beach, CA, Dec. 5-7, 2007
130. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "Optimal Static Soaring of UAVs Using Vehicle Routing with Time Windows," 45th AIAA Aerospace Sciences Meeting and Exhibit, Reno, NV, 8-11 Jan. 2007
131. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "A Stochastic Approach to Optimal Soaring Problem and Robust Adaptive LQG Control," AIAA Infotech@Aerospace 2007 Conference and Exhibit, Rohnert Park, CA, 7-10 May 2007
132. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "A Robust Adaptive Control Design for Gliders Subject to Actuator Saturation Nonlinearities," 2007 American Control Conference, New York City, 11-13 July 2007, pp. 492-497
133. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "A Heuristic Search Algorithm for Maneuvering of UAVs across Dense Thermal Areas," AIAA Guidance, Navigation and Control Conference and Exhibit, Hilton Head , SC, 20 - 23 Aug. 2007
134. Nazli E. Kahveci, Petros A. Ioannou, Maj D. Mirmirani, "Adaptive Control of Unmanned Aerial Vehicles in Atmospheric Flight with Reduced Models," 2007 SAE AeroTech Congress and Exhibition, Los Angeles, CA, 17-20 Sept. 2007
135. Nazli E. Kahveci, Petros A. Ioannou, "An Indirect Adaptive Control Design with Anti-windup Compensation: Stability Analysis," 46th IEEE Conference on Decision and Control, New Orleans, LA, 12-14 Dec. 2007, pp. 1294-1299
136. Lestas M., Pitsillides A., Ioannou P. and Hadjipollas G., "Queue Length based Internet Congestion Control", Proc. 2007 International Conference on Networking Sensing and Control, London, April 2007, pp. 584-589.
137. M. Kuipers, M. Mirmirani, P. Ioannou, and Y. Huo, 'Adaptive Control of an Aeroelastic Airbreathing Hypersonic Cruise Vehicle', in Proc. AIAA Guidance, Navigation, and Control Conf., AIAA Paper 2007-6326, Aug 2007.

2008

138. Hadjipollas G., Hadjipollas M., Lestas M., Ioannou P. and Pitsillides A., "Evaluation of new ramp metering and variable speed algorithms on the Cyprus Highway network", Proc. 1st European Easyway Conference, Taorminia-Giardini Naxos, October 14-16, 2008
139. Levin J., Perez Arancibia N. O., Ioannou P., Tsao T.-C., "Adaptive disturbance rejection for disk drives using neural networks," Proc of American Control Conference, Seattle, WA, Jun. 2008.
140. Levin, J., Ioannou, P. , "Multirate adaptive notch filter with an adaptive bandwidth controller for disk drives," Proc of American Control Conference, Seattle, WA, Jun. 2008.
141. Levin, J., Ioannou, P., Mirmirani, M. D., "Adaptive mode suppression for an aeroelastic airbreathing hypersonic cruise vehicle," in Proc of AIAA Guidance, Navigation, and Control Conference, Honolulu, HI, Aug. 2008
142. Nazli E. Kahveci, Petros A. Ioannou, "Flight Trajectory Optimization for Multiple Autonomous Glider Unmanned Aerial Vehicles," 46th AIAA Aerospace Sciences Meeting and Exhibit, Reno, NV, 7-10 Jan. 2008
143. Nazli E. Kahveci, Petros A. Ioannou, "Optimal Flight Trajectories Through Recursive Thermal Streets with Uncertain Climb Rates," 10th AIAA Non-Deterministic Approaches Conference, Schaumburg, IL, 7-10 Apr. 2008
144. Nazli E. Kahveci, Petros A. Ioannou, "Indirect Adaptive Control for Systems with Input Rate Saturation," 2008 American Control Conference, Seattle, WA, 11-13 June 2008, pp. 3396-3401
145. Nazli E. Kahveci, Petros A. Ioannou, "Genetic Algorithms for Shortest Path Routing of Autonomous Gliders," AIAA Guidance, Navigation and Control Conference and Exhibit, Honolulu, HI, 18-21 Aug. 2008
146. M. Kuipers and P. Ioannou, "Multiple Model Adaptive Control With Mixing: A Pedagogical Example," Proc. of the 47th IEEE Conference on Decision and Control, Cancun, Mexico, pp. 3239-3244, December 2008.
147. M. Kuipers, P. A. Ioannou, B. Fidan, and M. Mirmirani, "Robust Adaptive Multiple Model Controller Design for an Airbreathing Hypersonic Vehicle Model," in Proc. AIAA Guidance, Navigation and Control Conf., AIAA Paper 2008-7142, Honolulu, Hawaii, Aug 2008.
148. M. Kuipers and P. A. Ioannou, "Practical Robust Adaptive Control: Benchmark Example," Proc. American Control Conference, Seattle, Washington, pp. 5168 – 5173, June 2008.
- 2009**
149. M. Kuipers, P. A. Ioannou, B. Fidan, and M. Mirmirani, "Analysis of an Adaptive Mixing Control Scheme for an Airbreathing Hypersonic Vehicle Model," American Control Conference, St. Louis, Missouri, June 2009.
150. M. Kuipers and P.A. Ioannou, 'Robust Adaptive Controller Scheduling Using Mixing', 17th Mediterranean Conference on Control and Automation, Thessaloniki Greece, June 24-26, 2009.
151. Levin, J., Ioannou, P., "Adaptive Control with Neuro-Adaptive Disturbance Rejection," in Proc of Mediterranean Conference on Control and Automation, Thessaloniki Greece, June 24-26, 2009.

- 152.** Yun Wang, Hwan Chan, Petros A. Ioannou, 'Lane Change Guidance for Freeway Incident Management', 12th IFAC Symposium on Transportation Systems, Redondo Beach, CA, USA, September 2-4, 2009, pp 7-11
- 153.** Hwan Chang, Hossein Jula, Anastasios Chassiakos, and Petros Ioannou, 'Integrated simulation of freeway traffic flow and container terminal operation:framework and case study' 12th IFAC Symposium on Transportation Systems, Redondo Beach, CA, USA, September 2-4, 2009, pp 123-129
- 154.** Afshin Abadi, Mithun Baphana, and Petros Ioannou, 'Simulation Models for Evaluation of Terminal Operations and Traffic Flow on Adjacent Road Network' 12th IFAC Symposium on Transportation Systems, Redondo Beach, CA, USA, September 2-4, 2009, pp129-137
- 155.** George Papageorgiou, Petros Ioannou , Andreas Pitsillides, Thrasos Aphantis, Athanasios Maimaris Development and Evaluation of Bus Priority Scenarios via Microscopic Simulation Models', 12th IFAC Symposium on Transportation Systems, Redondo Beach, CA, USA, September 2-4, 2009 pp 434-441
- 156.** Nazli E. Kahveci, Petros A. Ioannou , 'Adaptive Control Design for Cargo Ship Steering with Limited Rudder Angle' 12th IFAC Symposium on Transportation Systems, Redondo Beach, CA, USA, September 2-4, 2009, pp505-512
- 157.** H. Jula, H. Chang, A. Chassiakos, and P. Ioannou, "Multiple Berth Allocation Problem," 23rd European Conference on Operations Research, Bonn, Germany, July 2009.
- 158.** H. Chang, H. Jula, A. Chassiakos, and P. Ioannou, "Modeling and Mitigating Port Disruptions," National Urban Freight Conf., Long Beach CA., October 2009.
- 159.** Nazli E. Kahveci, Petros A. Ioannou, "Aircraft Dynamics with Input Rate Constraints: An Adaptive Flight Control Application," AIAA Guidance, Navigation and Control Conference and Exhibit, Chicago, IL, 10-13 Aug. 2009.
- 2010**
- 160.** Nazli E. Kahveci, Petros A. Ioannou, "Advanced Static Soaring Flight Controls for Input Constrained Aircraft," 48th AIAA Aerospace Sciences Meeting and Exhibit, Orlando World Center Marriott, Orlando, FL, 4-7 Jan. 2010.
- 161.** Baldi S., Ioannou P. A., & Mosca E. 'Evaluation of Identifier based and Non-identifier based Adaptive Supervisory Control using a Benchmark Example' Proceedings of the 4th International Symposium on Communications, Control and Signal Processing, ISCCSP 2010, Limassol, Cyprus, 3-5 March 2010.
- 162.** Ioannou P. A., Mosca E., & Baldi S. ' Multiple Model Adaptive Control with Mixing: Discrete-time Case', Stochastic Modeling Techniques and Data Analysis International Conference, SMTDA2010, Chania, Crete Greece, June 8-11 2010.

- 163.** Papageorgiou, G, Maimaris A., Ioannou P., Pitsillides A. and Aphames T, ‘Introduction of Bus Rapid Transit in Cyprus: Evaluation of Bus Priority Scenarios’, TRB 89th Annual Meeting, Report no. 10-0629, January 2010
- 164.** Nazli E. Kahveci, Petros A. Ioannou, “Handling Qualities of the F-8 Digital Fly-by- Wire Aircraft and Adaptive Control for Longitudinal Dynamics,” Infotech@Aerospace 2010 Conference and Exhibit, The Westin Buckhead Atlanta, Atlanta, GA, 20-22 Apr. 2010.
- 165.** Nazli E. Kahveci, Petros A. Ioannou, “Cruise Control with Adaptation and Wheel Torque Constraints to Improve Fuel Economy,” 2010 IEEE Intelligent Vehicles Symposium, University of California, San Diego, CA, 21-24 June 2010.
- 166.** Nazli E. Kahveci, Petros A. Ioannou, “Parameter Identification and Adaptive Control for Improved Vehicle Yaw Stability Performance,” 49th IEEE Conference on Decision and Control, Atlanta, GA, 15-17 Dec. 2010.
- 167.** Michael D. Orosz, Carl Southwell, Anthony Barrett, Jennifer Chen, Petros Ioannou, Afshin Abadi, Isaac Maya, ‘ PortSec: A Port Security Risk Analysis and Resource Allocation System’ IEEE International Conference on Technologies for Homeland Security, Nov. 8-10, 2010, Waltham, MA, USA
- 2011**
- 168.** Yun Wang, Petros Ioannou and George Papageorgiou, ‘New Model for Variable Speed Limits’ TRB 90th Annual Meeting, Pres. # 11-2888 , January 23-27, 2011, Washington DC.
- 169.** S. Baldi, E. B. Kosmatopoulos, K. Aboudolas, D. Rovas, A. Papachristodoulou and P. A. Ioannou, ‘Nonlinear Control of Large Scale Complex Systems Using Convex Optimization Tools and Self-Adaptation’, 2011 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC), Orlando, FL, USA, December 12-15, 2011, pp. 5407-5412
- 170.** A. Chassiakos, P. Ioannou, H.Jula, H. Chang, ‘Recovery Methods for Port Disruptions as a Multi-Berth Allocation Problem’ 4th National Urban Freight Conference, October 12-14, 2011, Long Beach, CA
- 171.** A. Abadi, P. Ioannou, ‘ Reducing the Impact of Port Disruptions by Service Network Optimization for Goods Movement’, 4th National Urban Freight Conference, October 12-14, 2011, Long Beach, CA
- 172.** A. Abadi, P. Ioannou, James Moore II, Jean-Pierre Bardet, Cost Impact of Earthquakes on Port Operations and the Adjacent Traffic Flows, 4th National Urban Freight Conference, October 12-14, 2011, Long Beach, CA
- 173.** N. Kahveci and P. Ioannou, ‘Backstepping Control Design for Intelligent Actuation Systems’, IEEE Conference on Intelligent Transportation Systems - ITSC 2011, October 5-7, 2011, Washington, DC, USA
- 174.** Y. Wang and P. Ioannou, ‘ The Impact of Variable Speed Limits on Freeway Traffic’, 4th National Urban Freight Conference, October 12-14, 2011, Long Beach, CA

175. E. Kosmatopoulos, K. Aboudolas, D. Rovas, A. Papachristodoulou, P. Ioannou, "Nonlinear Control of Large Scale Complex Systems: The AGILE Control Design Approach" The 19th IEEE Mediterranean Conference on Control and Automation, June 20-23, 2011, Corfu, Greece
176. Kosmatopoulos, E. B. and Baldi, S. and Aboudolas, K. and Rovas, D. V. and Papachristodoulou, A. and Ioannou, P. A., 'Nonlinear Control of Large Scale Complex Systems Using Convex Control Design Tools', The 19th IEEE Mediterranean Conference on Control and Automation, MED2011, June 20th-23rd, Aquis Corfu Holiday Palace, Corfu, Greece, 2011, pp. 1022 -1027
177. S. Baldi, P. Ioannou and E. Mosca, 'Discrete-time Adaptive Mixing Control with Stability-preserving Interpolation: the Output Regulation Problem', 18th IFAC World Congress, Milan, Italy, August/September, 2011, Milan, Italy, 2011, Volume# 18, Part# 1, pp. 102-107
178. Mylonas Y., Lestas M., Pitsillides A. and Ioannou P., 'Speed Adaptive Probabilistic Flooding for Vehicular Ad-Hoc Networks', 22nd annual IEEE International Symposium on Personal, Indoor and Mobile and Radio Communications, pp. 719-723, Toronto, Canada, September, 2011.

2012

179. Simone Baldi, Petros A. Ioannou, Elias Kosmatopoulos, 'A Scalable Convex Design Approach for Nonlinear Systems', 2012 American Control Conference Fairmont Queen Elizabeth, Montréal, Canada on June 27-June 29, 2012

Invited Conference Papers

1981

1. P. A. Ioannou and C. R. Johnson, Jr., "Reduced-Order Performance of Parallel and Series-Parallel Identifiers of Two-Time Scale Systems," Proc. of the Workshop on Applications of Adaptive Systems Theory, Yale University, May 1981, pp. 169-175.

1982

2. P. A. Ioannou and P. V. Kokotovic, "Reduced-Order Adaptive Control," IFAC Workshop on Singular Perturbations and Robustness of Control Systems, Lake Ohrid, Yugoslavia, July 1982.
3. P. A. Ioannou and P. V. Kokotovic, "Singular Perturbations and Robust Redesign of Adaptive Control," The 21st Conference on Decision and Control, Orlando, FL, December 1982.

1983

4. P. A. Ioannou, "Robust Redesign of Adaptive Control in the Presence of Disturbances and Unmodeled Dynamics," The IFAC Workshop on Adaptive Systems in Control and Signal Processing, June 1983 (presented at the Plenary Session). Invited paper.
5. P. A. Ioannou, "Adaptive Control of Interconnected Systems in the Presence of Disturbances," The Third Yale Workshop on Applications of Adaptive Systems Theory, June 1983, pp. 164-167.
6. P. A. Ioannou and P. V. Kokotovic, "Improvement of Robustness of Adaptive Schemes," The Third Yale Workshop on Applications of Adaptive Systems Theory, June 1983. Invited paper, pp. 148-153.

1984

7. P. A. Ioannou and M. DePonte, Jr., "Adaptive Control Techniques for a Class of Large-Scale Systems," American Control Conference, San Diego, CA, June 1984.

8. P. A. Ioannou, "Robust Adaptive Control," American Control Conference, San Diego, CA, June 1984.
9. P. A. Ioannou, "Robust Direct Adaptive Control," The 23rd Conference on Decision and Control, December 1984.
- 1986**
10. P. A. Ioannou and J. Sun, "Robust Adaptive Tuning of Controllers," Proc. 25th IEEE Conf. on Decision and Control, Athens, Greece, December 1986.
- 1987**
11. J. Sun and P. A. Ioannou, "The Theory and Design of Robust Adaptive Controllers," Proc. Fifth Yale Workshop on Applications of Adaptive Systems Theory, May 1987.
- 1988**
12. J. S. Reed and P. A. Ioannou, "Instability Analysis and Robust Adaptive Control of Robotic Manipulators," Proc. 27th IEEE Conf. on Decision and Control, pp. 1607-1611, December 1988.
13. P. A. Ioannou and K. S. Tsakalis, "The Class of Unmodeled Dynamics in Robust Adaptive Control," American Control Conference, Atlanta, Georgia, pp. 337-342, June 1988.
14. K. S. Tsakalis and P. A. Ioannou, "Parameter Estimation and Pole-Placement Control of Time-Varying Plants," American Control Conference, Atlanta, Georgia, pp. 1636-1641, June 1988.
- 1989**
15. J. Sun and P. A. Ioannou, "Robust Adaptive LQ Control Schemes," Proc. 1989 American Control Conference, Pittsburgh, PA, June 1989, pp. 987-993.
16. A. Chassiakos, A. Pak and P. A. Ioannou, "Non-linear Robust Adaptive Control of a SCARA Manipulator," Proc. 1989 American Control Conference, Pittsburgh, PA, June 1989, pp. 1469-1475.
17. P. A. Ioannou and J. Sun, "Robust Adaptive Control: A Unified Approach," Proc. 28th IEEE Conf. on Decision and Control, December 1989, Tampa, FL.
- 1990**
18. J. Sun and P. A. Ioannou, "Parameter Convergence of Modified Adaptive Laws with Persistent Excitation," Proc. 1990 American Control Conference, San Diego, CA, May 1990, p. 565-566.
19. P. Ioannou, "Robust Adaptive Control," The Sixth Yale Workshop on Applications of Adaptive Systems Theory, August 1990, p. 32-39.
- 1992**
20. C. C. Chien and P. A. Ioannou, "Automatic Vehicle-Following," Proc. 1992, American Control Conference, Chicago, IL, June 1992, pp. 1748-1752.
21. P. A. Ioannou, C. C. Chien, and J. Hauser, "Autonomous Intelligent Cruise Control," Proc. of the IVHS America 1992 Annual Meeting, Newport Beach, CA, May, 1992, pp. 97-112.
22. M. Polycarpou and P. A. Ioannou, "Neural Networks as On-line Approximators of Nonlinear Systems," Proc. of the 31st IEEE Conference on Decision and Control, Dec. 1992, pp. 7-13.
23. E. Kosmatopoulos, M. Christodoulou, and P. A. Ioannou, "Identification of Nonlinear Systems Using New Dynamic Neural Network Structures," Proc. of the 31st IEEE Conference on Decision and Control, Dec. 1992, pp. 20-26.

1993

24. P. Ioannou, Z. Xu, S. Eckert, D. Clemons, and T. Sieja, "Intelligent Cruise Control: Theory and Experiment," Proc. of the 32nd Conference on Decision and Control, San Antonio, Texas, Dec. 1993.

1994

23. C. Chien, Y. Zhang, A. Stotsky, and P. Ioannou, " Roadway Traffic Controller Design for Automated Highway Systems," Proc. of the 33rd IEEE Conference on Decision and Control, Lake Buena Vista, Florida, December 1994.

24. A. Stotsky, C. Chien and P. Ioannou, " Robust Platoon-Stable Control Design for Autonomous Intelligent Vehicle," Proc. of the 33rd IEEE Conference on Decision and Control, Lake Buena Vista, Florida, December 1994.

2002

25. H. Jula, C.I. Liu, and P.A. Ioannou, "Design, analysis, simulation, and evaluation of advanced container terminals," Digital Government 2002 conference, Los Angeles, CA, May 2002.

Book Reviews

1. Review of the textbook Adaptive Filtering, Prediction and Control, by Goodwin and Sin, Automatica, September 1985.
2. Review of the book Adaptive Control, by Chang C. Hang, Tong H. Lee and Weng K. Ho Automatica, Vol.33, No.4, pp. 749-751, 1997
3. Review of the book Adaptive Control of Systems with Actuator and Sensor Nonlinearities by Gang Tao and Petar Kokotovic, Automatica 37, 2001, pp1685-1687

Patents

1. 'Servo Control and Method Using Absolute Value Input Signals. Petros Ioannou, Elias Kosmatopoulos, Alvin Despain. Patent Number US 6, 545,836 B1, April 2003
2. 'Adaptive Notch Filter ', Levin Jason and Petros Ioannou, Provisional Patent Application Under 37 C.F.R. 1.53©, Application Number 61184583, June 5, 2009 (USC #09-378) (MWE #028080-567) [IWOV-DM_US.FID324558], Filed May 2010