

# Christoforos N. Hadjicostis

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## *Current Position*

**University of Cyprus (UCY)**  
*Associate Professor*  
*Associate Professor, Department of Electrical and Computer Engineering*

Nicosia, Cyprus  
May 2007–Present

**University of Cyprus (UCY)**  
*Department Chair*  
*Chair, Department of Electrical and Computer Engineering*

Nicosia, Cyprus  
February 2008–Present

**University of Illinois at Urbana-Champaign (UIUC)**  
*Adjunct Associate Professor, Adjunct Research Associate Professor*  
*Adjunct Associate Professor, Department of Electrical and Computer Engineering*  
*Adjunct Research Associate Professor, Coordinated Science Laboratory*

Urbana-Champaign, IL  
August 2008–Present

## *Previous Positions*

**University of Illinois at Urbana-Champaign (UIUC)**  
*Associate Professor, Research Associate Professor (on leave 2007-2008)*  
*Associate Professor, Department of Electrical and Computer Engineering*  
*Research Associate Professor, Coordinated Science Laboratory*

Urbana-Champaign, IL  
August 2005–August 2008

**University of Illinois at Urbana-Champaign (UIUC)**  
*Assistant Professor, Research Assistant Professor*  
*Assistant Professor, Department of Electrical and Computer Engineering*  
*Research Assistant Professor, Coordinated Science Laboratory*

Urbana-Champaign, IL  
August 1999–August 2005

## *Education*

**Massachusetts Institute of Technology (MIT)**

Cambridge, MA

**Doctor of Philosophy, Electrical Engineering and Computer Science, August 1999.**

Thesis: *Coding Approaches to Fault Tolerance in Dynamic Systems.*

Thesis supervisor: G. C. Verghese.

Areas of concentration: computational architectures, dynamic (sequential) systems, digital signal processing, discrete event systems, computer networks, parallel algorithms. Course work also included cryptography, error-correcting codes, mathematical analysis, power electronics, neural networks, and corporate finance theory.

**Master of Engineering, Electrical Engineering and Computer Science, February 1995.**

Thesis: *Fault-Tolerant Computation in Semigroups and Semirings.*

Thesis supervisor: G. C. Verghese.

Awarded top Masters thesis prize in EECS Department at MIT.

Graduate courses included discrete-time signal processing, stochastic processes, detection and estimation, information theory, parallel algorithms and architectures, computer architecture, systems engineering, and artificial intelligence.

**Bachelor of Science, Mathematics, February 1999.**

**Bachelor of Science, Computer Science and Engineering, May 1993.**

**Bachelor of Science, Electrical Engineering, May 1993.**

Thesis: *Static Allocation Techniques for Minimizing Cache Conflicts in Multiprocessor Caches.*

Thesis supervisor: A. Agarwal.

## Christoforos N. Hadjicostis

- Fields of Interest*
- (i) Fault-tolerant combinational/sequential systems; error control coding;
  - (ii) Monitoring, diagnosis and control; model classification and anomaly detection; applications to medical diagnosis, biosequencing, anomaly detection and network security;
  - (iii) Systems and control; discrete event systems; coding and graph theory.
- AWARDS Teaching*
- Engineering Council Award for Excellence in Advising (College of Engineering, UIUC, 2004).
  - ECE Faculty Outstanding Teaching Award (Department of Electrical and Computer Engineering, UIUC, 2003).
  - Collins Scholar (College of Engineering Teaching College, UIUC, 2001).
  - Harold L. Hazen Teaching Award for outstanding teaching performance by a graduate student (Department of Electrical Engineering and Computer Science, MIT, 1999).
- AWARDS Research*
- Best Student Paper Award finalist for the 2008 American Control Conference (with doctoral student Shreyas Sundaram, American Automatic Control Council, 2008).
  - Marie-Curie International Reintegration Grant (European Commission, 2008-2012).
  - Best Student Paper Award finalist for the 2007 American Control Conference (with doctoral student Shreyas Sundaram, American Automatic Control Council, 2007).
  - Invited Visiting Professor in the Department of Electrical and Electronic Engineering at the University of Cagliari, Cagliari, Italy (University of Cagliari, Spring 2007).
  - Outstanding reviewer of Automatica for 2005–2006 (Automatica, 2007).
  - Invited Visiting Researcher at IRISA/INRIA, Rennes, France (IRISA, Fall 2006).
  - Willet Faculty Scholar (College of Engineering, UIUC, 2006–2009).
  - IEEE Senior Member recognition for professional service to the IEEE Circuits and Systems, Control, and Information Theory Societies (IEEE, January 2005).
  - Research work feature article in the August 2004 issue of *Advances in Circuits and Systems*, the electronic newsletter of the IEEE Circuits and Systems Society (IEEE, Circuits and Systems Society, 2004).
  - National Science Foundation Career Award (NSF, USA, 2001).
  - Recognized reviewer of the IEEE Transactions on Automatic Control (IEEE, Control Systems Society, 2001).
  - Ernst A. Guillemin Thesis Prize for exceptional Master of Engineering Thesis, the top Masters Thesis prize awarded by the Department of Electrical Engineering and Computer Science (MIT, 1995).
- AWARDS Fellowships, Scholarships and Prizes*
- Fellowship from Grass Instrument Company (Department of Electrical Engineering and Computer Science, MIT, Spring 1999).
  - Fellowship from National Semiconductor Corporation (USA, 1998).
  - Fellowship from National Semiconductor Corporation (USA, 1997).
  - Fellowship from Josephine de Kármán Foundation (USA, 1996–1997).
  - Scholarship by the Agency for International Development for studies at MIT (Cyprus, 1989–1993).
  - Scholarship by the British Commonwealth for studies at Cambridge University (declined, Cyprus, 1989).
  - Scholarship by the Greek Government for studies at the National Technical University (declined, Cyprus, 1989).
  - First Prize in International Mathematical Competition between high school students of countries in the Balkans (1987). Third Prize in same competition (1986).
  - First Prizes in National Competitions in Mathematics (Cyprus Mathematics Society, 1987 and 1988).
  - First Prizes in National Competitions in Physics (Cyprus Physics Society, 1987 and 1988).

## Christoforos N. Hadjicostis

### Teaching Experience

**UCY, Department of Electrical and Computer Engineering**  
*Associate Professor*

*Nicosia, Cyprus*  
*Fall 2008, Fall 2007*

Taught junior level course on *Discrete Mathematics and Structures*; required for all undergraduate students enrolled in the Computer Engineering program (approximately 15 students per semester).

**UCY, Department of Electrical and Computer Engineering**  
*Associate Professor*

*Nicosia, Cyprus*  
*Spring 2008*

Taught a dual-level (senior level and graduate level) course on *Fault-Tolerant Systems*; suggested course for undergraduate students enrolled in the Computer Engineering program and graduate students that are interested in the analysis and design of reliable systems.

**UIUC, Department of Electrical and Computer Engineering**  
*Associate Professor*

*Urbana-Champaign, IL*  
*Spring 2007*

Taught introductory course on *Computer Engineering I*; required for all undergraduate students in the ECE Department (approximately 150 students per semester).

**UIUC, Department of Electrical and Computer Engineering**  
*Associate/Assistant Professor*

*Urbana-Champaign, IL*  
*Spring 2006, Fall 2003, Spring 2000*

Developed an advanced graduate seminar on *Coding Approaches to Reliable System Design*; suggested for advanced audiences with interests in the design of fault-tolerant and reliable dynamic systems and networks.

**UIUC, Department of Electrical and Computer Engineering**  
*Associate/Assistant Professor*

*Urbana-Champaign, IL*  
*Fall 2005, Fall 2004, Fall 2002, Fall 2001, Fall 2000, Fall 1999*

Taught senior level course *Communication I*, an elective that serves as the first course in the sequence of courses in communications; required for students concentrating in this area (approximately 45 students per semester); expanded course curriculum by including discussions on hypothesis testing, signal detection and estimation; co-developed a set of five MATLAB-based exercises to accompany homeworks in this course.

**UIUC, Department of Electrical and Computer Engineering**  
*Assistant Professor*

*Urbana-Champaign, IL*  
*Spring 2005, Spring 2004*

Taught graduate course on *Random Processes*; suggested for students in the areas of Communication, Signal Processing, and Control (approximately 45 students per semester).

**UIUC, Department of Electrical and Computer Engineering**  
*Assistant Professor*

*Urbana-Champaign, IL*  
*Spring 2003, Spring 2001*

Taught junior level course on *Digital Signal Processing*, a restricted elective that serves as the first course in digital signal processing (approximately 110 students per semester).

**UIUC, Department of Electrical and Computer Engineering**  
*Assistant Professor*

*Urbana-Champaign, IL*  
*Spring 2002*

Taught senior level course on *Digital Logic Design*, an elective that is taken mostly by students enrolled in the Computer Engineering program (approximately 120 students per semester).

## Christoforos N. Hadjicostis

### Other Teaching Experience

**MIT, Department of Electrical Engineering and Computer Science**  
*Recitation Instructor*

Cambridge, MA  
Fall 1998

Senior level course *Introduction to Communication, Control, and Signal Processing*; required header subject for Master of Engineering students concentrating in this area (150 students per semester).

Received Harold L. Hazen Teaching Award for outstanding teaching performance.

Taught recitations (sessions of 30–35 students that focused on problem-solving techniques and enforced concepts introduced in lecture); also assisted in course development.

Lecturer: Prof. A. V. Oppenheim.

**MIT, Department of Electrical Engineering and Computer Science**  
*Teaching Assistant*

Cambridge, MA  
Spring 1998, Fall 1996, Fall 1995, Fall 1994

Senior level course *Introduction to Communication, Control, and Signal Processing*; required header subject for Master of Engineering students concentrating in this area (150 students per semester).

Taught tutorial sessions and participated in the development examples, problems and exam questions.

Lecturers: A. V. Oppenheim, G. C. Verghese, and G. W. Wornell.

**MIT, Department of Electrical Engineering and Computer Science**  
*Teaching Assistant*

Cambridge, MA  
Spring 1994

Undergraduate laboratory: *Software Engineering*; required for students in Computer Science.

Taught recitations (sessions of 20–30 students that met twice a week) and generated problem sets, laboratory exercises, supporting software, and quiz problems.

Lecturer: W. Wehl.

### Course Development

**UCY, Department of Electrical and Computer Engineering**  
*Associate Professor*

Nicosia, Cyprus  
Spring 2008

Dual-level (senior level and graduate level) course on *Fault-Tolerant Systems*. Pilot version offered in Spring 2008 in the ECE Department at UCY; course combines topics from system reliability, fault-tolerant system design, coding theory, and digital logic design.

**UIUC, Department of Electrical and Computer Engineering**  
*Associate/Assistant Professor*

Urbana-Champaign, IL  
Spring 2006, Fall 2003, Spring 2000

Graduate course on *Coding Approaches to Reliable System Design*. Pilot version offered in Spring 2000 in the ECE Department at UIUC; course combines topics from system and control theory, coding theory, and digital logic design; the second offering of the course took place in Fall 2003 and included new problem sets and final project; the third offering of the course took place in Spring 2006 as a permanent seminar of the course *Special Topics in Decision and Control* (ECE 586).

**UIUC, Department of Electrical and Computer Engineering**  
*Associate Professor*

Urbana-Champaign, IL  
Fall 2005–Spring 2006

Senior level course *Communications I* (ECE 459); co-developed an interactive demonstration/laboratory component for the course with funds provided by the College of Engineering.

**UIUC, Department of Electrical and Computer Engineering**  
*Assistant Professor*

Urbana-Champaign, IL  
Fall 2000

Senior level course *Communications I* (ECE 459); included discussions on hypothesis testing, detection and estimation.

### Funded Course Development

“Development of an Interactive Demonstration/Laboratory Component for ECE 459 (Communications I),” College of Engineering (\$38K, Co-PI, 2005).

## Christoforos N. Hadjicostis

- Previous Research Positions* **National Semiconductor Corporation** *Santa Clara, CA*  
*DSP Algorithm Designer* *Summer 1997*  
 Implemented the encoding and decoding stage of a 24-dimensional lattice code for the Gigabit Ethernet standard (1000 BASE-T).
- MIT, Digital Signal Processing Group (RLE)** *Cambridge, MA*  
*Fellowship-Sponsored Researcher* *Spring 1999, Spring 1998, Fall 1997*  
 Funding provided by fellowships from the Grass Instrument Company, the National Semiconductor Corporation, and the Josephine de Kármán Foundation.
- MIT, Digital Signal Processing Group (RLE)** *Cambridge, MA*  
*Research Assistant* *Fall 1993–Summer 1996*  
 Research assistantship under partial support from RASSP (Rapid-Prototyping of Application Specific Signal Processors) program of ARPA (Advanced Research Projects Agency).
- MIT, Laboratory for Computer Science** *Cambridge, MA*  
*Undergraduate Researcher* *Summer 1993*  
 Developed algorithms for the memory assignment problem in shared-memory multiprocessors.
- Funded Research Projects* “Enabling Novel Digital and Networking Technologies via Design for Fault Tolerance,” University of Illinois Research Board (\$25K, PI, 2000).  
 “Enhanced Equalization and Decoding for EDGE, 3G and Beyond Motorola,” Motorola Research Center at the University of Illinois (\$270K, Co-PI, 2000).  
 “Hierarchical and Reconfigurable Schemes for Distributed Control over Heterogeneous Networks,” National Science Foundation (ITR Program) (\$3.5M, Co-PI, 2000).  
 “An Integrated Approach to Fault Tolerance in Discrete-Time Dynamic Systems,” National Science Foundation (Career Program) (\$375K, PI, 2001).  
 “Architectures for Secure and Robust Distributed Infrastructures,” Air Force Office of Scientific Research (URI Program), (\$3.5M, Co-PI, 2001).  
 “Layered Control Architectures for Complex Networked Systems,” National Science Foundation (\$270K, Co-PI, 2001).  
 “Distributed and Hierarchical Monitoring Schemes for Heterogeneous Networks,” Lucent Technologies (\$20K, Co-PI, 2001).  
 “Enabling Novel Digital Sequential Circuit Designs through Error Control and Noise Tolerance Techniques,” National Science Foundation (ITR Program) (\$240K, PI, 2002).  
 “Dynamical Models in Fault-Tolerant Operation and Control of Energy Processing Systems,” National Science Foundation (EPNES Program) (\$250K, PI, 2002).  
 “Extension for “Architectures for Secure and Robust Distributed Infrastructures”,” Air Force Office of Scientific Research (URI Program), (\$2M, Co-PI, 2004).  
 “Diagnosis and Assessment of Faults, Misbehavior and Threats in Distributed Systems and Networks,” National Science Foundation (ITR Program) (\$1.1M, PI, 2004).  
 “Distributed Diagnosis and Assessment of Faults, Misbehavior and Threats in Heterogeneous Networked Systems,” UIUC/CNRS/INRIA Collaboration in Computer Science (\$6K, PI, 2005).  
 “Enabling Diagnosis of Faults and Misbehavior in Heterogeneous Networked Systems via Structured Redundancy,” Boeing (\$300K, PI, 2006).  
 “Control for Coordination of Distributed Systems,” European Commission (2.8M Euro, Co-PI (Participant), 2008).  
 “Resilient Network Control Systems,” European Commission (100K Euro, PI (Coordinator), 2008).  
 “Composition Technology for Safety-Critical Modular Systems,” National Science Foundation (\$300K, Co-PI, 2008).  
 “Assessing and Building Trust in Next Generation Network Architectures,” Cyprus Research Promotion Foundation (95K Euro, PI, 2008).  
 “System Validation via Intelligent Collaboration for Reliable Next-Generation Manycore Chips,” Cyprus Research Promotion Foundation (130K Euro, Co-PI, 2008).  
 “Energy-Efficient Embedded and Mobile Multiprocessor System-On-Chip Architectures,” Cyprus Research Promotion Foundation (130K Euro, Co-PI, 2008).

## Christoforos N. Hadjicostis

### *Invited Lectures*

Invited lecture at the ECE Seminar Series of the University of Cyprus, January 23, 2008.

Two invited lectures at the Department of Electrical and Electronic Engineering at the University of Cagliari (Cagliari, Italy), March 27–28, 2007.

Invited lecture at the Laboratory for Information Systems (LIDS) Colloquium at MIT, October 18, 2005.

Invited lecture at the Distributed Computation and Signal Processing Group at IRISA/INRIA (Rennes, France), July 5, 2005.

Invited lecture at the ECE Seminar Series at Yale University, September 15, 2004.

Invited lecture at ECE Seminar Series of the University of Cyprus, July 21, 2004.

Invited lecture at the University of Notre Dame Discrete/Continuous System Theory Seminar Series, March 19, 2004.

Invited lecture at the Systems Seminar at the University of Wisconsin at Madison, October 15, 2003.

Invited lecture at the Hybrid/Embedded/Biological Systems Seminar at the University of Pennsylvania, April 25, 2003.

Invited lecture at the Control Seminar Series at the University of Michigan, March 21, 2003.

Invited lecture at Qualcomm Labs in San Francisco, April 2003.

Invited lecture at the ONR Control Challenge Collaborative Technical Kickoff at the Naval Academy, Annapolis (MD), November 8, 2002.

Invited lecture at Qualcomm Labs in San Francisco, May 2001.

Invited lecture at seminar series of the Illinois Center for Integrated Microsystems at the University of Illinois at Urbana-Champaign, April 17, 2000.

Invited lecture at the Computer Engineering Seminar Series at the University of Illinois at Urbana-Champaign, March 2000.

Invited lecture at McGill University, May 1999.

Invited lecture at the University of Illinois at Urbana-Champaign, April 1999.

Invited lecture at Boston University, April 1999.

Invited lecture at Oxford University, April 1999.

Invited lecture at Hewlett-Packard Laboratories in Bristol (UK), April 1999.

Invited lecture at Northeastern University, March 1999.

Invited lecture at Carleton University, March 1999.

Invited lecture at the University of New Mexico, March 1999.

### *SERVICE Technical Committees*

Serves on the IFAC (International Federation of Automatic Control) Technical Committee 1.3 on Discrete Event and Hybrid Systems, 2008-2011.

### *SERVICE National Committees*

Serves on a National Committee that reports to the Ministers of Education and Labor on post-lyceum educational options in Cyprus.

## Christoforos N. Hadjicostis

### *SERVICE Editorships*

Associate Editor for IEEE Transactions on Control Systems Technology, December 2007–Present.  
 Guest Associate Editor for the special issue of the International Journal of Systems, Control and Communications (IJSCC) on “Information Processing and Decision Making in Distributed Control Systems,” December 2007–Present.  
 Associate Editor for IEEE Transactions on Circuits and Systems I (Regular Papers), December 2005–September 2008.  
 Associate Editor of the Conference Editorial Board (CEB) of the IEEE Control Systems Society, 2007, 2006, 2005, 2004, 2003, 2002, 2001.  
 Co-Chair and Co-Program Chair for the 2007 Allerton Conference on Communication, Control, and Computing.  
 Co-Chair and Co-Program Chair for the 2007 Workshop on Control over Communication Channels (ConCom 2007).  
 Co-Chair and Co-Program Chair for the 2006 Allerton Conference on Communication, Control, and Computing.  
 Associate Editor for IEEE Transactions on Circuits and Systems I (Regular Papers), December 2003–November 2005.

### *SERVICE Program Committees*

Serves on the National Organizing Committee for the 19th International Conference of Artificial Intelligence Networks (ICANN 2009).  
 Serves on the Technical Program Committee for the 2009 Workshop on Control over Communication Channels (ConCom 2009).  
 Serves on the Technical Program Committee for the 2009 Information Theory Workshop on Networking and Information Theory (ITW 2009).  
 Serves on the Program Committee of the 17th Mediterranean Conference on Control and Automation (MED 2009).  
 Serves on the Program Committee of the Second International Conference on Networked Robots (ROBOCOMM 2009).  
 Served on the Organizing Committee for the NSF Workshop on Distributed Communication, Sensing and Control, Yale University, November 2008.  
 Served on the Program Committee of the 47th IEEE Conference on Decision and Control (CDC 2008).  
 Served as Editor for the area of Agents and Autonomous Systems for the 47th IEEE Conference on Decision and Control (CDC 2008).  
 Served on the Program Committee for the 19th International Workshop on Principles of Diagnosis (DX-08).  
 Served on the Program Committee of the First International Conference on Networked Robots (ROBOCOMM 2007).  
 Served on the Program Committee for the 18th International Workshop on Principles of Diagnosis (DX-07).  
 Served on the Program Committee for the 8th International Workshop on Discrete Event Systems (WODES 2006).  
 Served in the Program Committee of the 2006 IEEE International Conference on Networking, Sensing and Control (ICNSC 2006).  
 Served on the Program Committee for the 2005 Joint IEEE Conference on Decision and Control and the European Control Conference (CDC/ECC 2005).  
 Served on the Organizing Committee and as the Vice Program Chair for Invited Papers for the 13th Mediterranean Conference on Control and Automation (MED 2005).  
 Served as one of the three Program Chairs of the 2005 IEEE International Conference on Networking, Sensing and Control (ICNSC 2005).  
 Served on the Program Committee of the 41st IEEE Conference on Decision and Control (CDC 2002).

## Christoforos N. Hadjicostis

- SERVICE* Outstanding reviewer for Automatica, 2007.  
*Journal* Recognized reviewer for IEEE Transactions on Automatic Control, 2001.  
*Reviewing* Reviewer for IEEE Transactions on Automatic Control; IEEE Transactions on Automation Science and Engineering; IEEE Transactions on Circuits and Systems I; IEEE Transactions on Circuits and Systems II; IEEE Transactions on Control Systems Technology; IEEE Transactions on Communications; IEEE Transactions on Computers; IEEE Transactions on Dependable and Secure Computing; IEEE Transactions on Information Theory; IEEE Transactions on Reliability; IEEE Transactions on Robotics and Automation; IEEE Transactions on Signal Processing; IET (IEE) Proceedings – Computers and Digital Techniques; IET (IEE) Proceedings – Control Theory and Applications; Automatica; Control Engineering Practice; Discrete Applied Mathematics; Discrete Event Dynamic Systems; Electronic Letters; European Journal of Control; European Transactions on Telecommunications; IEEE Journal on Selected Areas in Communications; IEEE Proceedings; IEEE Sensors Journal; International Journal of Computer Mathematics; International Journal of Control; International Journal of Control, Automation and Systems; International Journal of Critical Infrastructures; International Journal of Dynamics and Control; International Journal of Critical Infrastructures; International Journal of Dynamics, Systems, Measurement and Control; Journal of Complexity; Kybernetika; Mathematics of Computation; SIAM Journal on Control and Optimization; Systems and Control Letters; The Computer Journal.
- SERVICE* Reviewer of book proposals for Springer (June 2008).  
*Book* Reviewer of book chapters for Wiley (December 2007).  
*Reviewing* Reviewer of books for McGraw Hill (December 2006).  
 Reviewer of book proposals for Elsevier Science (March 2006).  
 Reviewer of the Handbook of Computer Networks (March 2006).  
 Reviewer of proposals for Cambridge University Press (November 2004).
- SERVICE* Reviewer for the American Control Conference (ACC) 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2001, 2000.  
*Conference* Reviewer for invited session proposals for the 47th IEEE Conference on Decision and Control (CDC 2008).  
*Reviewing* Reviewer for the IEEE Conference on Decision and Control (CDC) 2008, 2007, 2006, 2005, 2004, 2003, 2002, 2000, 1998.  
 Reviewer for the IFAC (International Federation of Automatic Control) World Congress 2008, 2005.  
 Reviewer for the Mediterranean Control Conference (MED), 2008, 2005.  
 Reviewer for Allerton Conference on Communication, Control, and Computing, 2007, 2006, 2005, 2004, 2003, 2002, 2001.  
 Reviewer for DCDS 2007, the IFAC Workshop on Dependable Control of Discrete Systems.  
 Reviewer for WODES 2006, the 2006 International Workshop on Discrete Event Systems.  
 Reviewer for the International Symposium on Circuits and Systems (ISCAS) 2004, 2003.  
 Reviewer for the International Symposium on Information Theory (ISIT) 2004.  
 Reviewer for invited session proposals for the 42nd IEEE Conference on Decision and Control (CDC 2003).  
 Reviewer for the 2007 European Control Conference (ECC 2007).  
 Reviewer for the 32nd Annual Conference of the IEEE Industrial Electronics Society (IECON) 2006.  
 Reviewer for the Multiconference on Computational Engineering in Systems Applications (CESA) 2003.

## Christoforos N. Hadjicostis

SERVICE  
Conference  
Organiza-  
tion and  
Chairing

Chairs a session on “Distributed Computation, Control, and Estimation” during the 47th Conference on Decision and Control (CDC 2008), December 2008.

Chaired a session on “Agent-Based Systems” during the 2008 American Control Conference (ACC 2008), June 2008.

Chaired a session on “Robustness and Security of Networks” during the 46th Conference on Decision and Control (CDC 2007), December 2007.

Co-organized an invited session on “Multi-Agent Control, Coordination, and Navigation over Networks” during the 2007 Allerton Conference, September 2007.

Chaired a session on “Consensus” during the 2007 American Control Conference (ACC 2007), July 2007.

Chaired a session on “Fault Detection/Accommodation” during the 2007 European Control Conference (ECC 2007), July 2007.

Co-organized invited sessions on “State Estimation and Identification of Discrete Event Systems” and “State Estimation of Hybrid Systems” during the 2007 IFAC Workshop on Dependable Control of Discrete Systems (DCDS 2007), June 2007.

Chaired a session on “Filtering” during the 45th IEEE Conference on Decision and Control (CDC 2006), December 2006.

Organized an invited session on “Communication, Feedback and Rate Distortion” during the 2006 Allerton Conference, September 2006.

Chaired a session on “Fault Detection” during the 2006 American Control Conference (ACC 2006), June 2006.

Chaired a session on “Observers for Linear Systems” during the 2005 Joint IEEE Conference on Decision and Control and the European Control Conference (CDC/ECC 2005), December 2005.

Organized and co-chaired invited sessions on the “Confluence of Information, Communication and Control” and “Distributed Estimation, Detection and Diagnosis” during the 2005 Allerton Conference, September 2005.

Chaired a session on “Fault Diagnosis Applications” during the 43rd IEEE Conference on Decision and Control (CDC 2004), December 2004.

Organized and co-chaired an invited session on “Fault Diagnosis and Tolerance” during the 2004 Allerton Conference, September 2004.

Chaired a session on “Applications of Fault Detection” during the 2004 American Control Conference (ACC 2004), July 2004.

Chaired a session on “Identification” during the 42nd IEEE Conference on Decision and Control (CDC 2003), December 2003.

Organized and chaired an invited session on “Fault Diagnosis in Discrete Event Systems” during the 41st IEEE Conference on Decision and Control (CDC 2002), December 2002.

Organized and chaired an invited session on “Networked Control Systems” during the 41st IEEE Conference on Decision and Control (CDC 2002), December 2002.

Organized and chaired an invited session on “Monitoring and Fault Diagnosis in Complex Systems and Networks” during the 2001 Allerton Conference, October 2001.

Chaired a session on “Iterative Coding Techniques” during the 2001 Allerton Conference, October 2001.

Organized and chaired an invited session on “Monitoring/Testing of Systems and Networks” during the 2000 Allerton Conference, October 2000.

Chaired a session on “Computation” during MED 2000, the 8th IEEE Mediterranean Conference on Control and Automation, July 2000.

Chaired a session on “Linear Systems” during MED 1997, the 5th Mediterranean Conference on Control and Systems, July 1997.

## Christoforos N. Hadjicostis

### *SERVICE Research Workshops and Panels*

Performed an individual review for a research proposal submitted to the Department of Defense Experimental Program to Stimulate Competitive Research (DEPSCoR) Program in South Carolina (June 30, 2008).

Served in evaluation panels for proposals for the establishment of National Research Centers in Romania (May 26–28, 2008).

Participated in the retreat of the Information Trust Institute, UIUC (May 3, 2007).

Served on the NSF Electrical Engineering Review Panel for the National Science Foundation Graduate Research Fellowship Program (February 1–3, 2007).

Participated in the Workshop on Games, Teams and Decisions, Coordinated Science Laboratory, UIUC (September 30, 2006).

Participated in the Workshop on Stochastic Networks, Coordinated Science Laboratory, UIUC (June 19–24, 2006).

Served on the NSF Review Panel for the Power, Control, and Adaptive Networks Program of the ECS Division of the Directorate of Engineering (June 8–9, 2006).

Participated in the NSF Grantees Workshop on Electric Power Networks Efficiency and Security (EP-NES) (December 4–6, 2005).

Participated in the Information Trust Institute Workshop on Dependability and Security: Opportunities and Challenges in Building an Overarching Community, Coordinated Science Laboratory, UIUC (December 3, 2004).

Participated in the Office of Naval Research (ONR) “DIAS Program Review,” Applied Physics Laboratory, John Hopkins University, Columbia, MD (August 10, 2004).

Performed an ad-hoc review for the NSF Cyber Trust Program (July 2004).

Participated in the NSF Grantees Workshop for Information Technology Research (June 9–11, 2004).

Served on the NSF Review Panel for the CPA Cluster of the CCF (Computing and Communication Foundations) Division of CISE (Computer and Information Science and Engineering) Directorate of NSF (May 3, 2004).

Served on the NSF Review Panel for the NSF Core Program (Unsolicited Proposals) of Control, Networks and Computational Intelligence (CNCI) and Integrative Systems (IS) of the ECS Division of NSF (January 26–27, 2004).

Participated in the NSF Grantees Workshop on Electric Power Networks Efficiency and Security (EP-NES) (October 23–24, 2003).

Participated in the Workshop on Future Directions in Nonlinear Control of Mechanical Systems, Coordinated Science Laboratory, UIUC (October 4, 2003).

Participated in the NSF Grantees Workshop on Wireless Networked Sensor and Actuator Systems (September 8–9, 2003).

Participated in the Office of Naval Research (ONR) Control Challenge Collaborative Technical Kickoff, Naval Academy, Annapolis, MD (November 2002).

Participated in the Workshop on Advances in Systems, Control and Games, Coordinated Science Laboratory, UIUC (September 7, 2002).

Participated in Air Force Office of Scientific Research (AFOSR) Workshop, Wright-Peterson AFB, Dayton, OH (August 2001).

Participated in the Midwest Workshop on Arithmetical Geometry in Cryptography, Coordinated Science Laboratory, UIUC (November 2–4, 2001).

Participated in the Workshop on Advances in System Theory, Boston, MA (October 15–16, 1999).

Participated in the Workshop on Advances in Systems and Control, Coordinated Science Laboratory, UIUC (September 25, 1999).

## Christoforos N. Hadjicostis

<i>SERVICE Teaching Workshops and Panels</i>	<p>Serves on a National Committee that reports to the Ministers of Education and Labor on post-lyceum educational options in Cyprus.</p> <p>Participated in the 2007 UIUC Faculty Retreat on Active Learning (“Learning from Student Voices: Why their Outside Lives Matter Inside the Class”), UIUC (February 9, 2007).</p> <p>Participated in the 2006 UIUC Faculty Retreat, UIUC (February 10, 2006).</p> <p>Participated in the Workshop on “Effective Teaching” by Dr. P. Wankat, UIUC (January 29, 2004).</p> <p>Participated in the Computer Engineering Faculty Retreat, ECE, UIUC (February 15, 2003).</p> <p>Participated in ECE Department Retreat, ECE, UIUC (May 15, 2001).</p> <p>Participated in the Workshop on “Mentoring Students: Faculty Roles in Enhancing Student Development,” UIUC (March 24, 2001).</p> <p>Participated in the faculty development activity “A Workshop for Assistant Professors,” UIUC (March 23–24, 2001).</p> <p>Participated in the College of Engineering Teaching College, UIUC (Fall 2000–Spring 2001).</p> <p>Participated in the Workshop on “Effective Teaching” by Dr. Richard Felder and Dr. Rebecca Brent, UIUC (October 2000).</p> <p>Participated in the Computer Engineering Faculty Retreat, ECE, UIUC (March 4, 2000).</p> <p>Participated in the Workshop on “Active and Cooperative Learning,” UIUC (February 10, 2000).</p>
<i>University Experience and Service (continues)</i>	<p>Serves on the ECE Graduate Committee, UCY (September 2008–Present).</p> <p>Serves as Chair of the ECE Department, UCY (February 2008–Present).</p> <p>Serves on the Evaluation Committee of the ECE Department, UCY (August 2007–Present).</p> <p>Served as member of the Hiring Committee for a position at the rank of Assistant Professor or Lecturer in the ECE Department in the fields of Digital Signal and Image Processing or/and Biomedical Engineering, UCY (May 12–13, 2008).</p> <p>Served as chair of the Hiring Committee for a position at the rank of Assistant Professor or Lecturer in the ECE Department in the field of Computer Engineering (all disciplines), UCY (May 15–16, 2008).</p> <p>Served as the ECE Department representative in the College of Engineering Subcommittee to evaluate course outlines for new/revised/discontinued courses in the area of communications, UIUC (June 2007–December 2007).</p> <p>Served on the ECE Graduate Committee, UIUC (Fall 2006–August 2007).</p> <p>Qualifying Exam Committee Representative for Control Area in the ECE Department at UIUC (September 2005–August 2007 and January 2000–September 2001); developed one of two control questions in the qualifying exams for Fall 2005, Spring 2003, Fall 2000, Spring 2000 and Fall 1999; graded and evaluated results.</p> <p>Nominated member of the College of Engineering Library Committee, UIUC (Fall 2004–August 2007).</p> <p>ECE Teaching Evaluation and Awards Committee, UIUC (Fall 2003–August 2007).</p> <p>Coordinated Science Laboratory Distinguished Visitor Committee, UIUC (Fall 2003–August 2007).</p> <p>Communications and Control Area Committee, ECE, UIUC (Fall 2000–August 2007).</p> <p>Elected member of the CSL Policy and Planning Committee, UIUC (Spring 2004–Spring 2006); representative of the Control and Communications Areas.</p> <p>ECE Fellowship Committee, UIUC (Fall 2002–Summer 2005).</p> <p>Elected member of the ECE Advisory Committee, UIUC (Fall 2003–August 2004); served as representative of assistant professors in the committee.</p> <p>Performed, at the request of the ECE Department, a peer evaluation of the teaching of a faculty member nominated for the ECE Faculty Outstanding Teaching Award, UIUC (Spring 2004).</p> <p>Represented the Control and Communications areas in the ECE Advising Fair, UIUC (April 2, 2003).</p> <p>Invited speakers for the ECE Graduate Seminar, UIUC (Spring 2000–August 2007); served as Chairman of Graduate Seminar Committee, UIUC (January 2001–September 2002).</p> <p>ECE Graduate Recruitment Committee, UIUC (Fall 2000–Summer 2002).</p> <p>Participated in the Scholar’s Day Activities, UIUC (December 1, 2001).</p> <p>Organized graduate student recruitment activities for the Control area, Coordinated Science Laboratory, UIUC (October 8–9, 2001).</p> <p>ECE Student Records, Re-Admissions and Petitions Committee, UIUC (Fall 1999–August 2001).</p> <p>Coordinated Science Laboratory Awards Committee, UIUC (Fall 2000–August 2001).</p> <p>Interviewed prospective graduate students, UIUC (Spring 2001).</p> <p>Interviewed prospective minority graduate students, UIUC (Fall 2000).</p>

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<i>University Experience and Service (continued)</i>	<p>Graded weekly problem sets and MATLAB assignments for the graduate level course <i>Dynamic Systems and Control</i>, MIT (Spring 1997).</p> <p>Worked in a team to develop a calculus question for the Preliminary Written Exam for doctoral students, MIT; assisted in grading and evaluation MIT (January–February, 1996).</p> <p>Organized volunteer and social activities as president of the Eta Kappa Nu Electrical and Computer Engineering honor society, MIT (Spring 1994).</p> <p>Worked on enhancing the quality of audio recordings by the late Dr. Feynman, MIT (Fall 1993–Spring 1994).</p>
<i>PhD Thesis Committees</i>	<p>Rajamohana Hegde, UIUC (Thesis: “Reliable and Low-Power Signal Processing via Algorithmic Noise-Tolerance,” Advisor: Prof. Naresh Shanbhag, 2001).</p> <p>James Melody, UIUC (Thesis: “Inflight Characterization of Aircraft Icing,” Advisor: Prof. Tamer Basar, 2004).</p> <p>Byonghyo Shim, UIUC (Thesis: “Error-Tolerant Digital Signal Processing,” Advisor: Prof. Naresh Shanbhag, 2004).</p> <p>Robert Balog, UIUC (Thesis: “Autonomous Local Control in Distributed DC Power Systems,” Advisor: Prof. Phil Krein, 2006).</p> <p>Paul Kawka, UIUC (Thesis: “Controller Analysis and Synthesis for Wireless Servo Systems,” Advisor: Prof. Andrew Alleyne, 2006).</p> <p>Serdar Yuksel, UIUC (Thesis: “Transmission of Information in Control Systems,” Advisor: Prof. Tamer Basar, 2006).</p> <p>Jaesoo Byoun, UIUC (Thesis: “Analysis and IC Implementation of Digitally Controlled Multi-Port DC-DC Converters,” Thesis Advisor: Prof. Patrick Chapman, 2006).</p> <p>Kai Zheng, UIUC (Thesis: “Steady-State Bumpless Transfer under Controller Uncertainty: Methodology and Applications,” Advisor: Prof. Joseph Bentsman, ME, 2006).</p> <p>Alexis Kwasinski, UIUC (Thesis: “A Microgrid Architecture with Multiple-Input DC/DC Converter: Applications, Reliability, System Operation, and Control,” Advisor: Prof. Phil Krein, 2007).</p> <p>Linh Vu, UIUC (Thesis: “Invertibility and Input-to-State Stability of Switched Systems and Applications in Supervisory Control,” Advisor: Prof. Daniel Liberzon, 2007).</p> <p>Che Lin, UIUC (Thesis: “Multi-Antenna Communications in the Presence of Feedback,” Advisor: Prof. Venu Veeravalli, 2008).</p> <p>Xiangyu Tang, UIUC (Thesis: “Iterative Algebraic Decoding,” Advisor: Prof. Ralf Koetter, 2008).</p> <p>Michalis Michaelides, UCY (Prelim Thesis: “Distributed Event Detection and Localization in Wireless Sensor Networks” Advisor: Christos Panayiotou, Other Committee Members: Marios Polycarpou, February 15, 2008).</p> <p>Stelios Neofytou, UCY (Prelim Thesis: “High Quality Test Generation for Various Applications in Digital Systems Test,” Advisor: Maria Michael, Other Committee Members: Theocharis Theocharides, April 23, 2008).</p> <p>Brian Raczkowski, UIUC (Prelim Title: “Identification of Critical Lines for Power System Operational Reliability Assessment,” Advisor: Prof. Peter Sauer, Other Committee Members: Santiago Grijalva, Thomas Overbye, M. A. Pai, May 5, 2008).</p> <p>Michalis Markou, UCY (Prelim Thesis: “QoS Provisioning in Communication Networks: A Perturbation Analysis of Stochastic Fluid Models Approach,” Advisor: Christos Panayiotou, Other Committee Members: George Ellinas, June 5, 2008).</p>
<i>PhD Thesis External Appraisals</i>	<p>External appraiser of the PhD Thesis of Maria Paola Cabasino of the University of Cagliari (Thesis title to be determined, Advisor: Prof. Alessandro Giua, expected 2009).</p> <p>External appraiser of the PhD Thesis of Alireza Farhadi of the University of Ottawa (Thesis: “Stochastic Control Through Capacity Limited Channels Subject to Uncertainty,” Advisor: Prof. Charalambos Charalambous, 2007).</p> <p>External appraiser of the PhD Thesis of Rong Su of the University of Toronto (Thesis: “Distributed Diagnosis for Discrete-Event Systems,” Advisor: Prof. Murray Wonham, 2004).</p>
<i>Master Thesis Committees</i>	<p>Charalambos Constantinides, UCY (Thesis: “Supervisory and Notification Aggregator Service Enabler in a Fixed Mobile Convergent Architecture,” Advisor: Charalambos Charalambous, Other Committee Members: Vassos Vassiliou, April 30, 2008).</p>

## Christoforos N. Hadjicostis

- Preliminary and Qualifying Exam Committees* Member of the Committee for the Preliminary Examination of Nikos Freris, UIUC, April 3, 2007. Other committee members: Erhan Kudeki (Chair), Daniel Liberzon.
- Member of the Committee for the Preliminary Examination of Hemant Kowshik, UIUC, April 6, 2007. Other committee members: William O'Brian (Chair), Tamer Basar.
- Member of the Oral Qualifying Examination of Panayiotis Panayiotou, UCY, December 21, 2007. Other committee members: Marios Polycarpou (Chair), Christos Panayiotou.
- Member of the Oral Qualifying Examination of Ioanna Ioannou, UCY, October 14, 2008. Other committee members: Charalambous Charalambous (Chair), George Ellinas.
- PhD Students* Yingquan Wu, UIUC (August 2004, Thesis: "Coding Techniques for Linear Block Codes with Applications to Fault Identification," Committee Members: Richard Blahut, Ralf Koetter and Pierre Moulin).
- Rouzbeh Touri, UIUC (June 2007, Thesis: "Perfect Reconstruction of Digital Transmission through Channels with Bounded Additive Noise," Committee Members: Tamer Basar, Andrew Singer, Petros Voulgaris).
- Eleftheria Athanasopoulou, UIUC (July 2007, Thesis: "Diagnosis of Finite State Models under Partial or Unreliable Observations," Committee Members: Tamer Basar, William Sanders, R. Sreenivas, R. Srikant).
- Georgios Takos, UIUC (July 2007, Thesis: "Sparse Solutions to Structured Underdetermined Systems in the Presence of Small Noise," Committee Members: Tamer Basar, Yoram Bresler, Ralf Koetter, Petros Voulgaris).
- Lingxi Li, UIUC (September 2008, Thesis: "Estimation, Diagnosis, and Control in Discrete Event Systems in the Presence of Observability Constraints and Faults," Committee Members: Tamer Basar, Olgica Milencovic, R. Sreenivas).
- Shreyas Sundaram, UIUC (May 2009, expected).
- Tung Le, UIUC (August 2009, expected).
- Anooshivaran Saboori, UIUC (August 2009, expected).
- Yu Ru, UIUC (August 2009, expected).
- Master Students* Boon Pang Lim, UIUC (August 2001)
- Eleftheria Athanasopoulou, UIUC (December 2002)
- Brian Kominiarek, UIUC (May 2003)
- Ashley Llorens, UIUC (May 2003)
- George Takos, UIUC (August 2003)
- Tim Ernst, UIUC (August 2004)
- Jason Bryant, UIUC (August 2004)
- Shreyas Sundaram, UIUC (September 2005)
- Tung Le, UIUC (December 2006)
- Haitao Mo, UIUC (May 2007)
- Undergraduate Students* Akshay Naheta, UIUC; Karim Benjelloun, UIUC; Anthony Fai, UIUC; Samir Majumdar, UIUC; James Ni, UIUC; Roshan Raman, UIUC; Sander Parawira, UIUC; Menelaos Pissarides, UCY; Giwrgos Yias-soumas, UCY.
- Memberships* Member of the IEEE Control Society, Information Theory Society, and Circuits and Systems Society, 1999–Present; Senior Member, 2005–Present.
- President/Vice-President of the Eta Kappa Nu, Electrical and Computer Engineering honor society, 1993–1994. Member, 15 years.
- Member of the Sigma Xi society of research scientists, 9 years.
- Letters of commendation for exceptional academic performance in five core undergraduate courses offered by the Department of Electrical Engineering and Computer Science at MIT.
- Multiple appearances in International Mathematical Olympiads (1986–1987).
- Eligible for participation in International Physics Olympiads (1987–1988).
- Language Skills* Native Greek, fluent English, and working knowledge in French.

# Christoforos N. Hadjicostis

- PUBLICATIONS  
*Books*
- C. N. Hadjicostis, *Coding Approaches to Fault Tolerance in Combinational and Dynamic Systems*. Kluwer Academic Publishers, 2002.
- PUBLICATIONS  
*Edited Volumes*
1. A. C. Singer and C. N. Hadjicostis, "Proceedings of the 44th Annual Allerton Conference on Communication, Control, and Computing." University of Illinois, 2007.
  2. C. N. Hadjicostis and P. Moulin, "Proceedings of the 45th Annual Allerton Conference on Communication, Control, and Computing." University of Illinois, 2008.
- PUBLICATIONS  
*Book Chapters*
1. Anant Agarwal, J. V. Guttag, C. N. Hadjicostis, and M. C. Papaefthymiou, "Memory Assignment for Multiprocessor Caches through Grey Coloring," *Parallel Architectures and Languages Europe 1994 (Series Lecture Notes in Computer Science, vol. 817)*, pp. 351–363, Springer-Verlag, 1994.
  2. C. N. Hadjicostis and G. C. Verghese, "Monitoring Discrete Event Systems using Petri Net Embeddings," *Application and Theory of Petri Nets 1999 (Series Lecture Notes in Computer Science, vol. 1639)*, pp. 188–207, Springer-Verlag, 1999.
  3. S. Sundaram and C. N. Hadjicostis, "Non-Concurrent Error Detection and Correction in Switched Linear Controllers," *Hybrid Systems: Computation and Control 2004 (Series Lecture Notes in Computer Science, vol. 2993)*, pp. 585–599, Springer-Verlag, 2004.
  4. Y. Xiao, C. N. Hadjicostis, and K. Thulasiraman, "The  $d$ -Identifying Codes Problem for Vertex Identification in Graphs: Probabilistic Analysis and an Approximation Algorithm," *International Computing and Combinatorics Conference 2006 (Series Lecture Notes in Computer Science, vol. 4112)*, pp. 284–298, Springer-Verlag, 2006.
  5. G. Deltas and C. N. Hadjicostis, "Plant Reliability in Monopolies and Duopolies: A Comparison of Market Outcomes with Socially Optimal Levels," *Economic Market Design and Planning for Electric Energy Processing Systems (Edited by James Momoh and Lamine Mili)*, IEEE Press / John Wiley & Sons, 2009 (expected).
  6. H. Rodriguez Cortes, A. M. Stankovic, and C. N. Hadjicostis, "Dynamical Models in Fault Tolerant Operation and Control of Energy Processing Systems," *Operation and Control of Electric Energy Processing Systems (Edited by James Momoh and Lamine Mili)*, IEEE Press / John Wiley & Sons, 2009 (expected).
- PUBLICATIONS  
*Journal (continues)*
1. C. N. Hadjicostis and G. C. Verghese, "Structured Redundancy for Fault Tolerance in LTI State-Space Models and Petri Nets," *Kybernetika*, vol. 35, no. 1, pp. 39–55, January 1999.
  2. C. N. Hadjicostis, "Bounds on the Size of Minimal Nonnegative Realizations of Discrete-Time LTI Systems," *Systems and Control Letters*, vol. 37, no. 1, pp. 39–43, 1999.
  3. C. N. Hadjicostis and G. C. Verghese, "Power System Monitoring using Petri Net Embeddings," *IEE Proceedings: Generation, Transmission and Distribution*, vol. 147, no. 5, pp. 299–303, September 2000.
  4. C. N. Hadjicostis, "On the Complexity of Parallelizing Sequential Circuits using the Parallel Prefix Method," *IEEE Transactions on Circuits and Systems (I)*, vol. 48, no. 10, pp. 1228–1233, October 2001.
  5. C. N. Hadjicostis and G. C. Verghese, "Encoded Dynamics for Fault Tolerance in Linear Finite-State Machines," *IEEE Transactions on Automatic Control*, vol. 47, no. 1, pp. 189–192, January 2002.
  6. C. N. Hadjicostis and G. C. Verghese, "Fault-Tolerant Computation in Semigroups and Groups: Applications to Automata, Dynamic Systems and Petri Nets," *Journal of the Franklin Institute*, vol. 339, no. 4–5, pp. 387–430, July–August 2002.
  7. C. N. Hadjicostis, "Non-Concurrent Error Detection and Correction in Discrete-time LTI Dynamic Systems," *IEEE Transactions on Circuits and Systems (I)*, vol. 50, no. 1, pp. 45–55, January 2003.
  8. C. N. Hadjicostis, "Non-Concurrent Error Detection and Correction in Fault-Tolerant Linear Finite State Machines," *IEEE Transactions on Automatic Control*, vol. 48, no. 12, pp. 2133–2140, December 2003.
  9. C. N. Hadjicostis, "Periodic and Non-Concurrent Error Detection and Identification in One-Hot Encoded FSMs," *Automatica*, vol. 20, no. 10, pp. 1665–1676, October 2004.
  10. C. N. Hadjicostis, "Coding Techniques for Fault-Tolerant Parallel Prefix Computations in Abelian Groups," *The Computer Journal*, vol. 47, no. 3, pp. 329–341, 2004.
  11. C. N. Hadjicostis and G. C. Verghese, "Coding Approaches to Fault Tolerance in Linear Dynamic Systems," *IEEE Transactions on Information Theory*, vol. 51, no. 1, pp. 210–228, January 2005.

## Christoforos N. Hadjicostis

PUBLICATIONS  
*Journal*  
 (continues)

12. C. N. Hadjicostis, "Finite-State Machine Embeddings for Non-Concurrent Error Detection and Identification," *IEEE Transactions on Automatic Control*, vol. 50, no. 2, pp. 142–153, February 2005.
13. A. J. Llorens and C. N. Hadjicostis, and J. Ni, "Quantization of FIR Filters under a Total Integer Cost Constraint," *IEEE Transactions on Circuits and Systems (II)*, vol. 52, no. 9, pp. 576–580, September 2005.
14. E. Athanasopoulou and C. N. Hadjicostis, "Probabilistic Approaches to Fault Detection in Networked Discrete Event Systems," *IEEE Transactions on Neural Networks*, vol. 16, no. 5, pp. 1042–1052, September 2005 (Special Issue on Adaptive Learning Systems in Communication Networks, invited).
15. C. N. Hadjicostis, "Aliasing Probability Calculations for Arbitrary Compaction under Independently Selected Random Test Vectors," *IEEE Transactions on Computers*, vol. 54, no. 12, pp. 1614–1627, December 2005.
16. Yingquan Wu and C. N. Hadjicostis, "Algebraic Approaches for Centralized and Distributed Fault Identification in Discrete Event Systems," *IEEE Transactions on Automatic Control*, vol. 50, no. 12, pp. 2048–2053, December 2005.
17. C. N. Hadjicostis, "Probabilistic Fault Detection in Finite-State Machines Based on State Occupancy Measurements," *IEEE Transactions on Automatic Control*, vol. 50, no. 12, pp. 2078–2083, December 2005.
18. S. Sundaram and C. N. Hadjicostis, "Comments on "Time-Delayed State Estimator for Linear Systems with Unknown Inputs",", *International Journal on Control, Automation and Systems*, vol. 3, no. 4, pp. 646–647, December 2005.
19. Yingquan Wu and C. N. Hadjicostis, "On Solving Composite Power Polynomial Equations," *Mathematics of Computation*, vol. 74, no. 250, pp. 853–868, 2005.
20. S. Sundaram and C. N. Hadjicostis, "Error Detection and Correction in Switched Linear Controllers via Periodic and Non-Concurrent Checks," *Automatica*, vol. 42, no. 3, pp. 383–391, March 2006.
21. Yu Ru, Weimin Wu, and C. N. Hadjicostis, "Comments on "A Modified Reachability Tree Approach to the Analysis of Unbounded Petri Nets",", *IEEE Transactions on Systems, Man and Cybernetics (Part B)*, vol. 36, no. 5, p. 1210, October 2006.
22. S. Sundaram and C. N. Hadjicostis, "Discussion on: "A Comparison of Sliding Mode and Unknown Input Observers for Fault Reconstruction",", *European Journal of Control*, no. 17, pp. 267–270, 2006 (invited).
23. R. Touri and C. N. Hadjicostis, "Stabilization with Feedback Control utilizing Packet Dropping Network Links," *IET (IEE) Proceedings on Control Theory and Applications*, vol. 1, no. 1, pp. 334–342, January 2007.
24. Yingquan Wu and C. N. Hadjicostis, "Soft-Decision Decoding of Linear Block Codes using Pre-processing and Diversification," *IEEE Transactions on Information Theory*, vol. 53, no. 1, 378–393, January 2007.
25. S. Sundaram and C. N. Hadjicostis, "Delayed Observers for Linear Systems with Unknown Inputs," *IEEE Transactions on Automatic Control*, vol. 52, no. 2, pp. 334–339, February 2007.
26. Yingquan Wu and C. N. Hadjicostis, "Soft-Decision Decoding Using Ordered Recodings on the Most Reliable Basis," *IEEE Transactions on Information Theory*, vol. 53, no. 2, pp. 829–836, February 2007.
27. P. G. Voulgaris, C. N. Hadjicostis, and R. Touri, "A Robust Control Approach to Digital Communications: A Perfect Reconstruction Paradigm," *IEEE Transactions on Signal Processing*, vol. 55, no. 9, pp. 4444–4457, September 2007.
28. T. Le and C. N. Hadjicostis, "Max-Product Algorithms for the Generalized Multiple Fault Diagnosis Problem," *IEEE Transactions on Systems, Man and Cybernetics (Part B)*, vol. 37, no. 6, pp. 1607–1621, December 2007.
29. H. Rodriguez, C. N. Hadjicostis, and A. M. Stankovic, "Dynamical Models for Fault Detection in Squirrel Cage Induction Motors," *International Journal Critical Infrastructures*, vol. 3, no. 1/2, pp. 192–220, 2007 (Special issue on Critical Electricity Infrastructures Electric Power Network Efficiency and Security (EPNES), invited).
30. Lingxi Li, C. N. Hadjicostis, and R. S. Sreenivas, "Designs of Bisimilar Petri Net Controllers with Fault Tolerance Capabilities," *IEEE Transactions on Systems, Man and Cybernetics (Part A)*, vol. 38, no. 1, pp. 207–217, January 2008.

## Christoforos N. Hadjicostis

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*Journal*  
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31. G. Takos and C. N. Hadjicostis, "Determination of the Number of Errors in DFT Codes subject to Low-Level Quantization Noise," *IEEE Transactions on Signal Processing*, vol. 56, no. 3, pp. 1043–1054, March 2008.
  32. S. Sundaram and C. N. Hadjicostis, "Distributed Functional Calculation and Consensus using Linear Iterative Strategies," *IEEE Journal on Selected Areas in Communications*, vol. 26, no. 4, pp. 650–660, May 2008 (Special Issue on Control and Communications).
  33. R. Touri, P. G. Voulgaris and C. N. Hadjicostis, "Joint Preprocessing and Feedback Strategies for Perfectly Reconstructing Equalizers," *IEEE Journal on Selected Areas in Communications*, vol. 26, no. 4, pp. 596–608, May 2008 (Special Issue on Control and Communications).
  34. S. Sundaram and C. N. Hadjicostis, "Fault-Tolerant Convolution via Chinese Remainder Codes Constructed from Non-Coprime Moduli," *IEEE Transactions on Signal Processing*, vol. 56, no. 9, pp. 4244–4254, September 2008.
  45. Tung Le and C. N. Hadjicostis, "Graphical Inference for Multiple Intrusion Detection," *IEEE Transactions on Information Forensics and Security*, vol. 3, no. 3, pp. 370–380, September 2008 (Special Issue on Statistical Methods for Network Security and Forensics).
  36. Yu Ru and C. N. Hadjicostis, "Bounds on the Number of Markings Consistent with Label Observations in Petri nets." To appear in *IEEE Transactions on Automation Science and Engineering*.
  37. Yingquan Wu and C. N. Hadjicostis, "Decoding Algorithm and Architecture for BCH Codes under the Lee Metric." To appear in *IEEE Transactions on Communications*.
  38. S. Sundaram and C. N. Hadjicostis, "Partial State and Input Observers for Linear Systems with Unknown Inputs." To appear in *Automatica*.
  39. E. Athanasopoulou and C. N. Hadjicostis, "Bounds on FSM Switching Activity." To appear in *The Journal of VLSI Signal Processing Systems*.
  40. G. Takos and C. N. Hadjicostis, "Nonconcurrent Error Correction in the Presence of Roundoff Noise." To appear in *IEEE Transactions on Circuits and System I*.
  41. L. Lingxi and C. N. Hadjicostis, "Least-Cost Planning Sequence Estimation in Labeled Petri Nets." To appear in *Transactions of the Institute of Measurement and Control* (Special Issue on Planning and Scheduling in Complex Systems).
  42. E. Athanasopoulou, L. Lingxi, and C. N. Hadjicostis, "Maximum Likelihood Failure Diagnosis in Finite State Machines under Unreliable Observations." To appear in *IEEE Transactions on Automatic Control*.
- PUBLICATIONS  
*Conference*  
(continues)
1. C. N. Hadjicostis and G. C. Verghese, "Fault-Tolerant Computation in Semigroups and Semirings," *Proceedings of DSP 1995, International Conference on Digital Signal Processing*, vol. 2, pp. 779–784, Limassol, Cyprus, 1995.
  2. C. N. Hadjicostis and G. C. Verghese, "Design of Fault-Tolerant LTI State-Space Systems," *Proceedings of MED 1997, the 5th Mediterranean Conference on Control and Systems*, Paphos, Cyprus, 1997.
  3. C. N. Hadjicostis and G. C. Verghese, "Fault-Tolerant Linear Finite State Machines," *Proceedings of ICECS 1999, the 6th IEEE International Conference on Electronics, Circuits and Systems*, vol. 2, pp. 1085–1088, Paphos, Cyprus, 1999.
  4. C. N. Hadjicostis, "Fault-Tolerant Discrete-Time Linear Time-Invariant Filters," *Proceedings of ICASSP 2000, the IEEE International Conference on Acoustics, Speech, and Signal Processing*, vol. 6, pp. 3311–3314, Turkey, 2000.
  5. C. N. Hadjicostis and G. C. Verghese, "Fault-Tolerant Dynamic Systems," *Proceeding of ISIT 2000, the IEEE International Symposium on Information Theory*, p. 444, Sorrento, Italy, 2000.
  6. C. N. Hadjicostis, "Fault-Tolerant Sequence Enumerators," *Proceedings of MED 2000, the 8th IEEE Mediterranean Conference on Control and Automation*, Patras, Greece, 2000.
  7. C. N. Hadjicostis, "Stochastic Testing of Finite State Machines," *Proceedings of ACC 2001, the 2001 American Control Conference*, vol. 6, pp. 4568–4573, Arlington, VA, 2001.

## Christoforos N. Hadjicostis

- PUBLICATIONS  
Conference  
(continues)
8. C. N. Hadjicostis and G. C. Verghese, "Power System Monitoring based on Relay and Circuit Breaker Information," *Proceedings of ISCAS 2001, the 2001 IEEE International Symposium on Circuits and Systems*, vol. 2, pp. 197–200, Sydney, Australia, 2001 (invited).
  9. C. N. Hadjicostis, "Stochastic Monitoring and Testing of Digital LTI Filters," *Proceedings of CCSS 2001, the 5th WSES/IEEE Multiconference on Circuits, Systems, Communications and Computers (Advances in Systems Science: Measurement, Circuits and Control)*, pp. 247–252, Rethymnon, Crete (Greece), 2001.
  10. C. N. Hadjicostis, "Efficient Non-Concurrent Error Identification in Fault-Tolerant LTI Dynamic Systems," *Proceedings of LC01, the 2001 SIAM Conference on Linear Algebra in Signals, Systems and Control*, Boston, MA, 2001 (abstract only).
  11. C. N. Hadjicostis, "Non-Concurrent Error Detection and Correction in Discrete-Time LTI Dynamic Systems," *Proceedings of CDC 2001, the 40th IEEE Conference on Decision and Control*, vol. 2, pp. 1899–1904, Orlando, FL, 2001.
  12. Yingquan Wu and C. N. Hadjicostis, "Soft-Decision Decoding of Linear Block Codes using Efficient Iterative G-Space Encodings," *Proceedings of Globecom 2001, the IEEE Global Communications Conference*, vol. 2, pp. 921–925, San Antonio, TX, 2001.
  13. P. G. Voulgaris, C. N. Hadjicostis, and R. Touri, "Reconstruction of Discrete Data Transmissions: A Worst-Case Optimal Approach," *Proceedings of MED 2002, the 10th IEEE Mediterranean Conference on Control and Automation*, Lisbon, Portugal, 2002.
  14. C. N. Hadjicostis, "Non-Concurrent Error Detection and Correction in Fault-Tolerant Linear Finite State Machines," *Proceedings of MED 2002, the 10th IEEE Mediterranean Conference on Control and Automation*, Lisbon, Portugal, 2002.
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